

NEET Biology
Previous year MCQ Bank
With Answer Key

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NEET Biology

Previous year MCQ Bank

With Answer Key

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Q1. System of classification used by Linnaeus was

- (1) phylogenetic system
- (2) natural system
- (3) asexual system
- (4) artificial system

Ans: (4)

[1988]

Q2. Artificial system of classification was first used by

- (1) Pliny the Edler
- (2) Linnaeus
- (3) Bentham and Hooker
- (4) De Candolle

Ans: (1)

[1988]

Q3. Classification given by Bentham and Hooker is

- (1) phylogenetic
- (2) artificial
- (3) numerical
- (4) natural

Ans: (4)

Q4. The term “New Systematics” was introduced by

- (1) Julian Huxley
- (2) Bentham and Hooker
- (3) A.P. de Candolle
- (4) Linnaeus

Ans: (1)

[1989]

Q5. Static concept of species was put forward by

- (1) Theophrastus
- (2) de Candolle
- (3) Darwin
- (4) Linnaeus

Ans: (4)

Q6. An important criterion for modern day classification is

- (1) breeding habits
- (2) resemblances in morphology
- (3) presence or absence of notochord
- (4) anatomical and physiological traits

Ans: (4)

[1990]

Q7. Employment of hereditary principles in the improvement of human race is

- (1) Euphenics
- (2) Euthenics
- (3) Ethnology
- (4) Eugenics

Ans: (4)

[1990]

Q8. A taxon is

- (1) a type of living organisms
- (2) a group of related families
- (3) a taxonomic group of any ranking
- (4) a group of related species

Ans: (3)

[1990, 91, 92, 96]

Q9. Basic unit or smallest taxon of taxonomy/ classification is

- (1) family
- (2) species
- (3) variety
- (4) kingdom

Ans: (2)

[1990]

Q10. Linnaeus evolved a system of nomenclature called

- (1) binomial
- (2) monomial
- (3) polynomial
- (4) vernacular

Ans: (1)

[1991]

Q11. Binomial nomenclature means

- (1) two names, one latinised, other of a person
- (2) one name given by two scientists
- (3) two names of same plant
- (4) one scientific name consisting of a generic and specific epithet

Ans: (4)

[1991]

Q12. Sequence of taxonomic categories is

- (1) Division – Class – Order – Family – Tribe – Genus – Species
- (2) Class – Phylum – Tribe – Order – Family – Genus – Species
- (3) Phylum – Order – Class – Tribe – Family – Genus – Species
- (4) Division – Class – Family – Tribe – Order – Genus – Species

Ans: (1)

[1991]

Q13. The term phylum was given by

- (1) Theophrastus
- (2) Cuvier
- (3) Linnaeus
- (4) Haeckel

Ans: (2)

[1992]

Q14. Homeostasis is organism's

- (1) disturbance in regulatory control
- (2) tendency to change with change in environment
- (3) plants and animal extracts used in homeopathy
- (4) tendency to resist change

Ans: (4)

[1992]

Q15. Study of fossils is

- (1) saurology
- (2) palaeontology
- (3) organic evolution
- (4) herpetology

Ans: (2)

[1993]

Q16. Binomial nomenclature consists of two words

- (1) Family and genus
- (2) Genus and species
- (3) Species and variety
- (4) Order and family

Ans: (2)

[1993]

Q17. Phylogenetic classification is based on

- (1) overall similarities
- (2) utilitarian system
- (3) common evolutionary descent
- (4) habits

Ans: (3)

Q18. Species is

- (1) specific class of evolution
- (2) unit of classification
- (3) not related to evolution
- (4) unit in the evolutionary history of a tree

Ans: (2)

[1994]

Q19. Binomial nomenclature was introduced by

- (1) Huxley
- (2) de Vries
- (3) John Ray
- (4) Carlous Linnaeus

Ans: (4)

Q20. Linnaeus is credited with

- (1) discovery of microscope
- (2) binomial nomenclature
- (3) discovery of blood circulation
- (4) theory of biogenesis

Ans: (2)

Q21. If there was no CO₂ in the earth's atmosphere the temperature of earth's surface would be

- (1) the same
 - (2) higher than the present form environmental issues
 - (3) dependent on the amount of oxygen in the atmosphere from environmental issues
 - (4) less than the present
- Ans: (4)

Q22. Species occurring in different geographical areas are called as

- (1) allopatric
 - (2) sibling
 - (3) neopatric
 - (4) sympatric
- Ans: (1)

[1997]

Q23. In the five-kingdom system of classification, which single kingdom out of the following can include blue green algae, nitrogen-fixing bacteria and methanogenic archaebacteria?

- (1) Protista
 - (2) Fungi
 - (3) Monera
 - (4) Plantae
- Ans: (3)

[1998, 2003]

Q24. The high boiling point of water is advantageous to living organisms because

- (1) it allows organisms to spread heat evenly throughout their bodies
 - (2) the environment seldom reaches the boiling point of water
 - (3) organisms can absorb a great deal of heat before they reach the boiling point from organisms and population
 - (4) organisms can easily boil off enough water to keep themselves cool
- Ans: (4)

[1998]

Q25. “Taxonomy without phylogeny is similar to bones without flesh” is the statement of

- (1) Takhtajan
- (2) Oswald Tippo
- (3) Bentham and Hooker
- (4) John Hutchinson

Ans: (1)

[1998]

Q26. Relative biological effectiveness (RBE) is usually referred to damages caused by

- (1) Encephalitis
- (2) Low temperature
- (3) Radiation
- (4) High temperature

Ans: (3)

[1999]

Q27. The most important feature of all living systems is to

- (1) produce gametes
- (2) utilize oxygen to generate energy
- (3) utilize solar energy for metabolic activities
- (4) replicate the genetic information

Ans: (4)

[1999]

Q28. The book Genera Plantarum was written by

- (1) Engler and Prantl
- (2) Bessy
- (3) Bentham & Hooker
- (4) Hutchinson

Ans: (3)

Q29. A system of classification in which a large number of traits are considered, is

- (1) natural system
- (2) artificial system
- (3) phylogenetic system
- (4) synthetic system

Ans: (1)

[2000]

Q30. The practical purpose of classification of living organisms is to

- (1) name the living organisms
- (2) explain the origin of living organisms
- (3) facilitate identification of unknown organisms
- (4) trace the evolution of living organisms

Ans: (3)

Q31. What is true for individuals of same species?

- (1) Interbreeding
- (2) Live in same niche
- (3) Live in different habitat
- (4) Live in same habitat

Ans: (1)

[2001]

Q32. In five kingdom system, the main basis of classification is

- (1) structure of cell wall
- (2) structure of nucleus
- (3) asexual reproduction
- (4) mode of nutrition

Ans: (4)

[2001]

Q33. First life on earth was

- (1) Autotrophs
- (2) Cyanobacteria
- (3) Photoautotrophs
- (4) Chemoheterotrophs

Ans: (4)

[2001]

Q34. What is true for photolithotrops?

- (1) Obtain energy from organic compounds
- (2) Obtain energy from radiations and hydrogen from organic compounds
- (3) Obtain energy from inorganic compounds
- (4) Obtain energy from radiations and hydrogen from inorganic compounds

Ans: (4)

[2002]

Q35. Which of the following is less general in characters as compared to genus?

- (1) Class
- (2) Species
- (3) Family
- (4) Division

Ans: (2)

Q36. Plants reproducing by spores such as mosses and ferns are grouped under the general term

- (1) Bryophytes
- (2) Thallophytes
- (3) Sporophytes
- (4) Cryptogams

Ans: (4)

[2002]

Q37. Species are considered as

- (1) the lowest units of classification
- (2) real units of classification devised by taxonomists
- (3) artificial concept of human mind which cannot be defined in absolute terms
- (4) real basic units of classification

Ans: (1)

[2003, 04]

Q38. Biosystematics aims at

- (1) delimiting various taxa of organisms and establishing their relationships
- (2) identification and arrangement of organisms on the basis of their cytological characteristics
- (3) the classification of organisms based on their evolutionary history and establishing their phylogeny on the totality of various parameters from all fields of studies
- (4) the classification of organisms based on broad morphological characters

Ans: (3)

[2003]

Q39. Phenetic classification is based on

- (1) observable characteristics of existing organisms

- (2) sexual characteristics
- (3) dendograms based on DNA characteristics
- (4) the ancestral lineage of existing organisms

Ans: (1)

[2003]

Q40. Organisms which obtain energy by the oxidation of reduced inorganic compounds are called

- (1) saprozoic
- (2) photoautotrophs
- (3) coproheterotrophs
- (4) chemoautotrophs

Ans: (4)

[2003]

Q41. Select the correct statement from the following?

- (1) Mutations are random and directional
- (2) Fitness is the end result of the ability to adapt and gets selected by nature
- (3) Darwinian variations are small and direction less.
- (4) All mammals except whales and camels have seven cervical vertebrae

Ans: (2)

[2004]

Q42. Biological organisation starts with

- (1) atomic level
- (2) cellular level
- (3) submicroscopic molecular level
- (4) organismic level

Ans: (3)

[2005]

Q43. ICBN stands for

- (1) Indian Code of Botanical Nomenclature
- (2) International Code of Botanical Nomenclature
- (3) Indian Congress of Biological Names.
- (4) International congress of Biological Names

Ans: (2)

[2007]

Q44. Which of the following is not true for a species?

- (1) Each species is reproductively isolated from every other species.
- (2) Members of a species can interbreed.
- (3) Variations occur among members of a species.
- (4) Gene flow does not occur between the populations of a species.

Ans: (4)

[2007]

Q45. Angiosperms have dominated the land flora primarily because of their

- (1) nature of self pollination
- (2) power of adaptability in diverse habitat
- (3) domestication by man
- (4) property of producing large number of seeds

Ans: (2)

[2007]

Q46. Which one of the following aspects is an exclusive characteristic of living things?

- (1) Perception of events happening in the environment and their memory
- (2) Isolated metabolic reactions occur in vitro
- (3) Increase in mass by accumulation of material both on surface as well as internally.
- (4) Increase in mass from inside only

Ans: (1)

[2007]

Q47. Which one of the following animals is correctly matched with its particular named taxonomic category?

- (1) Humans - primata, the family
- (2) Tiger - tigris, the species
- (3) Housefly - musca, an order
- (4) Cuttle fish - mollusca, a class

Ans: (2)

[2008]

Q48. Which one of the following is considered important in the development of seed habit?

- (1) Free -living gametophyte
- (2) Heterospory

- (3) Dependent sporophyte
- (4) Haplontic life cycle

Ans: (2)

Q49. The haemoglobin of a human foetus

- (1) has only 2 protein subunits instead of 4
- (2) has a lower affinity for oxygen than that of the adult
- (3) has a higher affinity for oxygen than that of an adult
- (4) its affinity for oxygen is the same as that of an adult

Ans: (3)

[2011]

Q50. The living organisms can be unexceptionally distinguished from the non-living things on the basis of their ability for

- (1) growth and movement
- (2) interaction with the environment and progressive evolution
- (3) responsiveness to touch.
- (4) reproduction

Ans: (4)

[2011M]

Q51. The vector for sleeping sickness is

- (1) Sand fly
- (2) House fly
- (3) Fruit fly
- (4) Tse-Tse fly

Ans: (4)

[2012M]

Q52. The causal organism for African sleeping sickness is

- (1) T. tangela
- (2) Trypanosoma cruzi
- (3) T. gambiense
- (4) T. rhodesiense

Ans: (3)

[NEET 2013]

Q53. The common characteristics between tomato and potato will be maximum at the level of their

- (1) Order

- (2) Genus
- (3) Division
- (4) Family

Ans: (4)

[NEET Kar. 2013]

Q54. Which one of the following is not a correct statement?

- (1) Key is taxonomic aid for identification of specimens.
- (2) Botanical gardens have collection of living plants for reference.
- (3) Herbarium houses dried, pressed and preserved plant specimens.
- (4) A museum has collection of photographs of plants and animals

Ans: (4)

[1989]

Q55. Which one of the following organisms is scientifically correctly named, correctly printed according to the International Rules of Nomenclature and correctly described?

- (1) *Felis tigris* - The Indian tiger, well protected in Gir forests.
- (2) *Musca domestica* - The common house lizard, a reptile.
- (3) *E.coli* - Full name *Entamoeba coli*, a commonly occurring bacterium in human intestine.
- (4) *Plasmodium falciparum* – A protozoan pathogen causing the most serious type of malaria.

Ans: (1)

[1989]

Q56. Lichens indicate SO_2 pollution because they

- (1) are sensitive to SO_2
- (2) show association between algae and fungi
- (3) flourish in SO_2 rich environment
- (4) grow faster than others

Ans: (1)

[1989]

Q57. The infective stage of malarial parasite *Plasmodium* that enters human body is

- (1) trophozoite
- (2) merozoite
- (3) minuta form

(4) sporozoite

Ans: (4)

Q58. A bite of Tse-Tse fly may pass to humans

(1) Entamoeba histolytica

(2) Leishmania donovani

(3) Plasmodium vivax

(4) Trypanosoma gambiense

Ans: (4)

Q59. Malaria fever coincides with liberation of

(1) merozoites

(2) cryptomerozoites

(3) trophozoites

(4) metacryptomerozoites

Ans: (1)

[1989]

Q60. Trypanosoma belongs to class

(1) Ciliata

(2) Sarcodina

(3) Sporozoa

(4) Zooflagellata

Ans: (4)

[1989]

Q61. Amoebiasis is prevented by

(1) drinking boiled water

(2) eating balanced food

(3) using mosquito nets

(4) eating plenty of fruits

Ans: (1)

[1990]

Q62. Which is true about Trypanosoma?

(1) Facultative Parasite

(2) Polymorphic

(3) Non-pathogenic

(4) Monogenetic

Ans: (2)

[1990, 2001]

Q63. Genetic information in Paramecium is contained in

- (1) both micronucleus and macronucleus
- (2) micronucleus
- (3) mitochondria
- (4) macronucleus

Ans: (2)

[1990]

Q64. The main difference in Gram (+)ve and Gram (-)ve bacteria resides in their

- (1) cytoplasm
- (2) cell wall
- (3) flagella
- (4) cell membrane

Ans: (2)

[1990]

Q65. Which one belongs to monera?

- (1) Gelidium
- (2) Amoeba
- (3) Spirogyra
- (4) Escherichia

Ans: (4)

[1990]

Q66. Malignant tertian malarial parasite is

- (1) P. ovale
- (2) Plasmodium falciparum
- (3) P. malariae
- (4) P. vivax

Ans: (2)

[1990]

Q67. Who discovered Plasmodium in R.B.C of human beings?

- (1) Laveran
- (2) Ronald Ross
- (3) Stephens

(4) Mendel

Ans: (1)

[1990, 1994]

Q68. Absorptive heterotrophic nutrition is exhibited by

- (1) Bryophytes
- (2) Algae
- (3) Pteridophytes
- (4) Fungi

Ans: (4)

[1990]

Q69. A nonphotosynthetic aerobic nitrogen fixing soil bacterium is

- (1) Azotobacter
- (2) Rhizobium
- (3) Klebsiella
- (4) Clostridium

Ans: (1)

[1991]

Q70. Plasmodium, the malarial parasite, belongs to class

- (1) Sporozoa
- (2) Sarcodina
- (3) Dinophyceae
- (4) Ciliata

Ans: (1)

[1991]

Q71. The part of life cycle of malarial parasite Plasmodium vivax, that is passed in female Anopheles is

- (1) exoerythrocytic schizogony
- (2) sexual cycle
- (3) post-erythrocytic schizogony
- (4) pre-erythrocytic schizogony

Ans: (2)

[1991]

Q72. Bacteria lack alternation of generation because there is

- (1) no conjugation

- (2) neither syngamy nor reduction division
- (3) no exchange of genetic material
- (4) distinct chromosomes are absent

Ans: (2)

[1991]

Q73. In Amoeba and Paramecium osmoregulation occurs through

- (1) contractile vacuole
- (2) pseudopodia
- (3) general surface
- (4) nucleus

Ans: (1)

[1991, 2002]

Q74. African sleeping sickness is due to

- (1) Trypanosoma gambiense transmitted by Glossina palpalis
- (2) Plasmodium vivax transmitted by Tse tse fly
- (3) Entamoeba gingivalis spread by Housefly.
- (4) Trypanosoma lewsi transmitted by Bed Bug

Ans: (1)

[1991, 1992]

Q75. Name the organisms which do not derive energy directly or indirectly from sun

- (1) Symbiotic bacteria
- (2) Chemosynthetic bacteria
- (3) Mould
- (4) Pathogenic bacteria

Ans: (2)

[1992]

Q76. Schizogont stage of Plasmodium occurs in human cells

- (1) Erythrocytes and liver cells
- (2) Erthrocytes
- (3) Erythrocytes, liver cells and spleen cells
- (4) Liver cells

Ans: (1)

[1992]

Q77. If all ponds and puddles are destroyed, the organism likely to

be destroyed is

- (1) Ascaris
- (2) Leishmania
- (3) Plasmodium
- (4) Trypanosoma

Ans: (3)

[1993]

Q78. Genophore/bacterial genome or nucleoid is made of

- (1) a single double stranded DNA
- (2) histones and nonhistones
- (3) a single stranded DNA
- (4) RNA and histones

Ans: (1)

[1993]

Q79. Escherichia coli is used extensively in biological research as it is

- (1) easy to handle
- (2) easily cultured
- (3) easily multiplied in host
- (4) easily available

Ans: (2)

[1993]

Q80. Organisms which are indicator of SO₂ pollution of air

- (1) Mushrooms
- (2) Mosses
- (3) Puffballs
- (4) Lichens

Ans: (4)

[1993]

Q81. Temperature tolerance of thermal blue-green algae is due to

- (1) mitochondrial structure
- (2) cell wall structure
- (3) homopolar bonds in their proteins
- (4) cell organisation

Ans: (3)

[1994]

Q82. The term antibiotic was first used by

- (1) Waksman
- (2) Flemming
- (3) Lister
- (4) Pasteur

Ans: (1)

[1994]

Q83. Organelle/organoid involved in genetic engineering is

- (1) golgi apparatus
- (2) plasmid
- (3) lomasome
- (4) mitochondrion

Ans: (2)

[1994]

Q84. Tobacco Mosaic Virus (TMV) genes are

- (1) polyribonucleotides
- (2) double stranded RNA
- (3) proteinaceous
- (4) single stranded RNA

Ans: (4)

[1994, 2003]

Q85. Reverse transcriptase is

- (1) DNA dependent DNA polymerase
- (2) RNA dependent RNA polymerase
- (3) RNA dependent DNA polymerase
- (4) DNA dependent RNA polymerase

Ans: (3)

[1994]

Q86. Entamoeba coli causes

- (1) Dysentery
- (2) Pyrrhoea
- (3) None
- (4) Diarrhoea

Ans: (3)

[1994]

Q87. Protistan genome has

- (1) gene containing nucleoproteins condensed together in loose mass
- (2) membrane bound nucleoproteins embedded in cytoplasm
- (3) nucleoprotein in direct contact with cell substance
- (4) free nucleic acid aggregates

Ans: (2)

[1994]

Q88. Nitrogen fixer soil organisms belong to

- (1) green Algae
- (2) mosses
- (3) soil Fungi
- (4) bacteria

Ans: (4)

[1994]

Q89. Rickettsiae constitute a group under

- (1) independent group between bacteria and viruses
- (2) bacteria
- (3) fungi
- (4) viruses

Ans: (1)

[1994]

Q90. Nonsymbiotic nitrogen fixers are

- (1) soil fungi
- (2) Azotobacter
- (3) blue-green algae
- (4) Pseudomonas

Ans: (2)

[1994]

Q91. Decomposers are organisms that

- (1) attack and kill plants as well as animals
- (2) illaborate chemical substances, causing death of tissues
- (3) operate in relay terms, simplifying step by step the organic constituents of dead body
- (4) operate in living body and simplifying organic substances of cells step by

step

Ans: (3)

[1994]

Q92. *Claviceps purpurea* is causal organism of

- (1) Ergot of Rye
- (2) Smut of Barley
- (3) Powdery Mildew of Pea.
- (4) Rust of Wheat

Ans: (1)

[1994]

Q93. *Ustilago* caused plant diseases called smut because

- (1) they develop sooty masses of spores
- (2) they parasitise cereals
- (3) affected parts becomes completely black.
- (4) mycelium is black

Ans: (3)

[1994]

Q94. Protista includes

- (1) chemoautotrophs
- (2) heterotrophs
- (3) all the above
- (4) chemoheterotrophs

Ans: (3)

Q95. Protists obtain food as

- (1) chemosynthesisers
- (2) photosynthesisers, symbionts and holotrophs
- (3) holotrophs
- (4) photosynthesisers

Ans: (2)

[1994]

Q96. Macro and micronucleus are the characteristic feature of

- (1) Hydra and Ballantidium
- (2) Paramecium and Vorticella
- (3) Vorticella and Nictothirus
- (4) Opalina and Nictothirus

Ans: (2)

[1994, 2003]

Q97. The function of contractile vacuole, in protozoa, is

- (1) osmoregulation
- (2) locomotion
- (3) reproduction
- (4) food digestion

Ans: (1)

[1995]

Q98. Which of the following organism possesses characteristics of both a plant and an animal?

- (1) Mycoplasma
- (2) Bacteria
- (3) Paramecium
- (4) Euglena

Ans: (4)

Q99. The plasmid

- (1) is a component of cell wall of bacteria
- (2) helps in respiration
- (3) is the genetic part in addition to DNA in micro-organisms
- (4) genes found inside nucleus

Ans: (3)

[1995]

Q100. Mycorrhiza represents

- (1) symbiosis
- (2) antagonism
- (3) parasitism
- (4) endemism

Ans: (1)

[1995]

Q101. White rust disease is caused by

- (1) Phytophthora
- (2) Claviceps
- (3) Albugo candida
- (4) Alternaria

Ans: (3)

[1995]

Q102. The chemical compounds produced by the host plants to protect themselves against fungal infection is

- (1) phytoalexins
- (2) phytotoxin
- (3) hormone
- (4) pathogen

Ans: (1)

[1995]

Q103. Which of the following is not correctly matched?

- (1) covered smut of barley - *Ustilago nuda*
- (2) root knot disease - *Meloidogyne javanica*
- (3) late blight of potato - *Phytophthora infestans*
- (4) smut of bajra - *Tolysporium penicillariae*

Ans: (1)

[1995]

Q104. The organism, used for alcoholic fermentation, is

- (1) *Aspergillus*
- (2) *Pseudomonas*
- (3) *Saccharomyces*
- (4) *Penicillium*

Ans: (3)

[1995]

Q105. Excretion in *Amoeba* occurs through

- (1) plasma membrane
- (2) lobopodia
- (3) contractile vacuole
- (4) uroid portion

Ans: (3)

[1995]

Q106. Interferons are

- (1) anticancer proteins
- (2) antiviral proteins
- (3) complex proteins

(4) antibacterial proteins

Ans: (2)

[1996]

Q107. In bacterial chromosomes, the nucleic acid polymers are

(1) of two types-DNA and RNA

(2) linear DNA molecule

(3) linear RNA molecule

(4) circular DNA molecule

Ans: (4)

[1996]

Q108. Influenza virus has

(1) both DNA and RNA

(2) DNA

(3) only proteins and no nucleic acids.

(4) RNA

Ans: (4)

[1996]

Q109. Sex factor in bacteria is

(1) RNA

(2) Chromosomal replicon

(3) Sex-pilus

(4) F-replicon

Ans: (4)

[1996]

Q110. Azotobacter and Bacillus polymyxa are the examples of

(1) ammonifying bacteria

(2) symbiotic nitrogen-fixers

(3) disease-causing bacteria

(4) non-symbiotic nitrogen-fixers

Ans: (4)

[1996]

Q111. Which one of the following statements about viruses is correct?

(1) Viruses are facultative parasites

(2) Viruses possess their own metabolic system

- (3) Viruses are readily killed by antibiotics
- (4) Viruses contain either DNA or RNA

Ans: (4)

[1996]

Q112. The plasmids present in the bacterial cells are

- (1) linear double helical DNA molecules
- (2) circular double helical DNA molecules
- (3) linear double helical RNA molecules.
- (4) circular double helical RNA molecules

Ans: (2)

[1996]

Q113. The hereditary material present in the bacterium *Escherichia coli* is

- (1) double stranded DNA
- (2) single stranded DNA
- (3) single stranded RNA
- (4) deoxyribose sugar

Ans: (1)

[1997, 98]

Q114. Mycorrhiza is

- (1) a fungus parasitising root system of higher plants
- (2) a symbiotic association of plant roots and certain fungi
- (3) an association of *Rhizobium* with the roots of leguminous plants
- (4) an association of algae with fungi

Ans: (2)

[1997]

Q115. Which one of the following is not true about lichens?

- (1) Some species can be used as pollution indicators
- (2) Their body is composed of both algal and fungal cells
- (3) These grow very fast at the rate of about 2 cm per year
- (4) Some form food for reindeers in arctic regions

Ans: (3)

[1997]

Q116. Transfer of genetic information from one bacterium to another in the transduction process is through

- (1) Another bacterium
- (2) Conjugation
- (3) Physical contact between donor and recipient strain
- (4) Bacteriophages released from the donor bacterial strain

Ans: (4)

[1997]

Q117. A few organisms are known to grow and multiply at temperatures of 100–105°C. They belong to

- (1) hot-spring blue-green algae (cyanobacteria)
- (2) marine archaeobacteria
- (3) thermophilic, subaerial fungi
- (4) thermophilic sulphur bacteria

Ans: (2)

[1998]

Q118. The main role of bacteria in the carbon cycle involves

- (1) digestion or breakdown of organic compounds
- (2) photosynthesis
- (3) assimilation of nitrogenous compounds
- (4) chemosynthesis

Ans: (1)

[1998]

Q119. Two bacteria found to be very useful in genetic engineering experiments are

- (1) Rhizobium and Diplococcus
- (2) Escherichia and Agrobacterium
- (3) Nitrosomonas and Klebsiella
- (4) Nitrobacter and Azotobacter

Ans: (2)

[1998]

Q120. Most of the Lichens consist of

- (1) red algae and ascomycetes
- (2) blue-green algae and basidiomycetes
- (3) brown algae and phycomycetes
- (4) blue-green algae and ascomycetes

Ans: (4)

[1998]

Q121. Photosynthetic bacteria have pigments in

- (1) chromoplasts
- (2) leucoplasts
- (3) chromatophores
- (4) chloroplasts

Ans: (3)

[1998]

Q122. Due to which of the following organisms, yield of rice has been increased?

- (1) Sesbania
- (2) Anabaena
- (3) Bacillus polymexa
- (4) Bacillus popilliae

Ans: (2)

Q123. Yeast *Saccharomyces cerevisiae* is used in the industrial production of

- (1) ethanol
- (2) citric acid
- (3) butanol
- (4) tetracycline

Ans: (1)

[1998]

Q124. Which one of the following micro-organisms is used for production of citric acid in industries?

- (1) *Rhizopus nigricans*
- (2) *Penicillium citrinum*
- (3) *Lactobacillus bulgaris*
- (4) *Aspergillus niger*

Ans: (4)

[1999]

Q125. *Puccinia* forms

- (1) uredia and aecia on barberry leaves
- (2) uredia and aecia on wheat leaves

(3) uredia and pycnia on barberry leaves

(4) uredia and telia on wheat leaves

Ans: (4)

[1999]

Q126. In fungi stored food material is

(1) sucrose

(2) glycogen

(3) glucose

(4) starch

Ans: (2)

[1999]

Q127. A virus can be considered a living organism because it

(1) reproduces (inside the host)

(2) responds to touch stimulus

(3) can cause disease

(4) respire

Ans: (1)

[2000]

Q128. Enzymes are absent in

(1) Algae

(2) Cyanobacteria

(3) Fungi

(4) Viruses

Ans: (4)

[2000]

Q129. A good green manure in rice fields is

(1) Salvinia

(2) Aspergillus

(3) Mucor

(4) Azolla

Ans: (4)

[2000]

Q130. In prokaryotes, the genetic material is

(1) linear DNA without histones

(2) linear DNA with histones

- (3) circular DNA without histones
 - (4) circular DNA with histones
- Ans: (3)

[2000]

Q131. What is true for cyanobacteria?

- (1) Non-oxygenic with nitrogen
- (2) Oxygenic with nitrogenase
- (3) Non-oxygenic without nitrogenase
- (4) Oxygenic without nitrogenase

Ans: (2)

[2000]

Q132. Extra-nuclear inheritance occurs in

- (1) Phenylketonuria
- (2) Killer strain in Paramecium
- (3) Tay sachs disease
- (4) Colour blindness

Ans: (2)

[2000]

Q133. Interferons are synthesized in response to

- (1) Viruses
- (2) Mycoplasma
- (3) Fungi
- (4) Bacteria

Ans: (1)

Q134. Industrial production of ethanol from starch is brought about by

- (1) Azotobacter
- (2) Saccharomyces
- (3) Penicillium
- (4) Lactobacillus

Ans: (2)

[2001]

Q135. Black rust of wheat is caused by

- (1) Aspergillus
- (2) Puccinia

(3) Rhizopus

(4) Mucor

Ans: (2)

[2001]

Q136. Adhesive pad of fungi penetrates the host with the help of

(1) softening by enzymes

(2) mechanical pressure and enzymes

(3) only by mechanical pressure

(4) hooks and suckers

Ans: (2)

[2001]

Q137. Plant decomposers are

(1) Protista and animalia

(2) Monera and fungi

(3) Animalia and monera

(4) Fungi and plants

Ans: (2)

[2001]

Q138. What is true for plasmid?

(1) Plasmid contains gene for vital activities

(2) Plasmids are widely used in gene transfer

(3) These are main party of chromosome

(4) These are found in virus

Ans: (2)

[2001]

Q139. Cauliflower mosaic virus contains

(1) ds DNA

(2) ss RNA

(3) ss DNA

(4) ds RNA

Ans: (1)

[2001]

Q140. What is true for archaebacteria?

(1) All fossils

(2) All halophiles

- (3) Oldest living beings
 - (4) All photosynthetic
- Ans: (3)

[2001]

Q141. Which of the following secretes toxins during storage conditions of crop plants?

- (1) Fusarium
 - (2) Aspergillus
 - (3) Colletotrichum
 - (4) Penicillium
- Ans: (2)

Q142. Which statement is correct for bacterial transduction?

- (1) Bacteria obtained its DNA directly
 - (2) Transfer of some genes from one bacteria to another bacteria through virus
 - (3) Bacteria obtained DNA from other external source
 - (4) Transfer of genes from one bacteria to another bacteria by conjugation
- Ans: (2)

Q143. In bacteria, plasmid is

- (1) non-functional DNA
 - (2) extra – chromosomal material
 - (3) repetitive gene
 - (4) main DNA
- Ans: (2)

[2002]

Q144. Which bacteria is utilized in gober gas plant?

- (1) Ammonifying bacteria
 - (2) Methanogens
 - (3) Denitrifying bacteria
 - (4) Nitrifying bacteria
- Ans: (2)

[2002]

Q145. Some bacteria are able to grow in Streptomycin containing medium due to

- (1) reproductive isolation
- (2) natural selection
- (3) genetic drift
- (4) Induced mutation

Ans: (2)

[2002]

Q146. Chromosomes in a bacterial cell can be 1 – 3 in number and

- (1) are always linear
- (2) can be circular as well as linear within the same cell
- (3) can be either circular or linear, but never both within the same cell
- (4) are always circular

Ans: (4)

[2002]

Q147. Viruses are no more “alive” than isolated chromosomes because

- (1) they both need food molecules
- (2) both require the environment of a cell to replicate
- (3) they both require oxygen for respiration
- (4) they require both RNA and DNA

Ans: (2)

Q148. The chief advantage of encystment to an Amoeba is

- (1) the ability to live for sometime without ingesting food
- (2) the chance to get rid of accumulated waste products
- (3) protection from parasites and predators
- (4) the ability to survive during adverse physical conditions

Ans: (4)

[2003]

Q149. During the formation of bread it becomes porous due to release of CO₂ by the action of

- (1) Virus
- (2) Yeast
- (3) Protozoans
- (4) Bacteria

Ans: (2)

[2003]

Q150. Which fungal disease spreads by seed and flowers?

- (1) Covered smut of barley
- (2) Loose smut of wheat
- (3) Soft rot of potato
- (4) Corn stunt

Ans: (2)

[2003]

Q151. Which of the following statements is not true for retroviruses?

- (1) The genetic material in mature retroviruses is RNA
- (2) DNA is not present at any stage in the life cycle of retroviruses
- (3) Retroviruses are causative agents for certain kinds of cancer in man
- (4) Retroviruses carry gene for RNA dependent DNA polymerase

Ans: (2)

[2003]

Q152. Which one of the following pairs is not correctly matched?

- (1) Spirulina - Single cell protein
- (2) Streptomyces - Antibiotic
- (3) Rhizobium - Biofertilizer
- (4) Serratia - Drug addiction

Ans: (4)

[2003]

Q153. Lichens are well known combination of an alga and a fungus where fungus has

- (1) a parasitic relationship with the alga
- (2) a saprophytic relationship with the alga
- (3) a symbiotic relationship with the alga
- (4) an epiphytic relationship with the alga

Ans: (3)

[2004]

Q154. Tobacco mosaic virus is a tubular filament of size

- (1) 300×5 nm
- (2) 700×30 nm
- (3) 300×20 nm

(4) $300 \times 10 \text{ nm}$

Ans: (3)

[2004]

Q155. Which one of the following statements about viruses is correct?

- (1) All viruses contain both RNA and DNA
- (2) Nucleic acid of viruses is known as capsid
- (3) Viruses are obligate parasites
- (4) Viruses possess their own metabolic system

Ans: (3)

[2004]

Q156. For retting of jute the fermenting microbe used is

- (1) Helicobacter pylori
- (2) Methophilic bacteria
- (3) Streptococcus lactin
- (4) Butyric acid bacteria

Ans: (4)

[2004]

Q157. All of the following statements concerning the Actinomycetes filamentous soil bacterium Frankia are correct except that Frankia:

- (1) Forms specialized vesicles in which the nitrogenase is protected from oxygen by a chemical barrier involving triterpene hopanoids
- (2) Can induce root nodules on many plant species
- (3) Like Rhizobium, it usually infects its host plant through root hair deformation and stimulates cell proliferation in the host's cortex
- (4) Cannot fix nitrogen in the free-living state.

Ans: (4)

[2004]

Q158. Auxopores and hormocysts are formed, respectively, by:

- (1) Several cyanobacteria and several diatoms
- (2) Some diatoms and several cyanobacteria
- (3) Several diatoms and a few cyanobacteria.
- (4) Some cyanobacteria and diatoms

Ans: (3)

[2005]

Q159. Viruses that infect bacteria, multiply and cause their lysis, are called

- (1) lytic
- (2) lysozymes
- (3) lysogenic
- (4) lipolytic

Ans: (1)

[2005]

Q160. The most thoroughly studied fact of the known bacteria-plant interactions is the

- (1) nodulation of Sesbania stems by nitrogen fixing bacteria
- (2) cyanobacterial symbiosis with some aquatic ferns
- (3) plant growth stimulation by phosphatesolubilising bacteria
- (4) gall formation on certain angiosperms by Agrobacterium

Ans: (4)

[2005]

Q161. Which of the following environmental conditions are essential for optimum growth of *Mucor* on a piece of bread? A. Temperature of about 25°C B. Temperature of about 5° C C. Relative humidity of about 5% D. Relative humidity of about 95% E. A shady place F. A brightly illuminated place Choose the answer from the following options:

- (1) B, C and F only
- (2) A, D and E only
- (3) A, C and E only
- (4) B, D and E only

Ans: (2)

[2005]

Q162. The thalloid body of a slime mould (*Myxomycetes*) is known as

- (1) mycelium
- (2) plasmodium
- (3) protonema

(4) fruiting body

Ans: (2)

[2006]

Q163. Which of the following statements regarding cilia is not correct?

(1) Cilia contain an outer ring of nine doublet microtubules surrounding two single microtubules

(2) Cilia are hair-like cellular appendages

(3) The organized beating of cilia is controlled by fluxes of Ca^{2+} across the membrane

(4) Microtubules of cilia are composed of tubulin

Ans: (2)

[2006]

Q164. Which antibiotic inhibits interaction between RNA and mRNA during bacterial protein synthesis?

(1) Tetracycline

(2) Neomycin

(3) Erythromycin

(4) Streptomycin

Ans: (2)

[2006]

Q165. There exists a close association between the alga and the fungus within a lichen. The fungus

(1) fixes the atmospheric nitrogen for the alga

(2) provides protection, anchorage and absorption for the alga

(3) releases oxygen for the alga

(4) provides food for the alga

Ans: (2)

[2006]

Q166. Which one of the following is a slime mould?

(1) Anabaena

(2) Physarum

(3) Rhizopus

(4) Thiobacillus

Ans: (2)

Q167. Ergot of rye is caused by a species of

- (1) claviceps
- (2) uncimula
- (3) phytophthora.
- (4) ustilago

Ans: (1)

[2007]

Q168. Which pair of the following belongs to Basidiomycetes

- (1) Morchella and mushrooms
- (2) puffballs and Claviceps
- (3) birds nest fungi and puffballs.
- (4) peziza and stink borns

Ans: (3)

[2007]

Q169. Which one of the following statements about mycoplasma is wrong?

- (1) They cause diseases in plants
- (2) They are pleomorphic
- (3) They are also called PPLO.
- (4) They are sensitive to penicillin

Ans: (4)

[2007]

Q170. The causative agent of mad-cow disease is a

- (1) Bacterium
- (2) Prion
- (3) Virus
- (4) Worm

Ans: (2)

[2007]

Q171. Which one is the wrong pairing for the disease and its causal organism?

- (1) Root-knot of vegetables - Meloidogyne sp
- (2) Black rust of wheat - Puccinia graminis
- (3) Late blight of potato - Alternaria solani
- (4) Loose smut of wheat - Ustilago nuda

Ans: (3)

[2008]

Q172. Thermococcus, Methanococcus and Methanobacterium exemplify:

- (1) Bacteria whose DNA is relaxed or positively supercoiled but which have a cytoskeleton as well as mitochondria
- (2) Archaeobacteria that contain protein homologous to eukaryotic core histones
- (3) Bacteria that contain a cytoskeleton and ribosomes
- (4) Archaeobacteria that lack any histones resembling those found in eukaryotes but whose DNA is negatively supercoiled

Ans: (2)

[2008]

Q173. In the light of recent classification of living organisms into three domains of life (bacteria, archaea and eukarya), which one of the following statements is true about archaea?

- (1) Archaea completely differ from both prokaryotes and eukaryotes
- (2) Archaea resemble eukarya in all respects
- (3) Archaea completely differ from prokaryotes.
- (4) Archaea have some novel features that are absent in other prokaryotes and eukaryotes

Ans: (4)

[2008]

Q174. Bacterial leaf blight of rice is caused by a species of

- (1) Alternaria
- (2) Xanthomonas
- (3) Erwinia
- (4) Pseudomonas

Ans: (2)

[2008]

Q175. Which one of the following is linked to the discovery of Bordeaux mixture as a popular fungicide?

- (1) Loose smut of wheat
- (2) Bacterial leaf blight of rice
- (3) Black rust of wheat

(4) Downy mildew of grapes

Ans: (4)

[2009]

Q176. Membrane-bound organelles are absent in:

(1) Chlamydomonas

(2) Saccharomyces

(3) Plasmodium

(4) Streptococcus

Ans: (4)

[2009]

Q177. Ringworm in humans is caused by:

(1) Nematodes

(2) Bacteria

(3) Viruses

(4) Fungi

Ans: (4)

[2009]

Q178. Single-celled eukaryotes are included in:

(1) Archaea

(2) Protista

(3) Monera

(4) Fungi

Ans: (2)

Q179. Mannitol is the stored food in:

(1) Gracillaria

(2) Porphyra

(3) Chara

(4) Fucus

Ans: (4)

[2010]

Q180. Phylogenetic system of classification is based on:

(1) floral characters

(2) morphological features

(3) evolutionary relationships

(4) chemical constituents

Ans: (3)

[2010]

Q181. Archegoniophore is present in:

- (1) Adiantum
- (2) Marchantia
- (3) Funaria
- (4) Chara

Ans: (2)

[2010]

Q182. Which one of the following organisms is not an example of eukaryotic cells?

- (1) Euglena viridis
- (2) Paramecium caudatum
- (3) Amoeba proteus
- (4) Escherichia coli

Ans: (4)

[2011]

Q183. Ethanol is commercially produced through a particular species of:

- (1) Trichoderma
- (2) Saccharomyces
- (3) Aspergillus
- (4) Clostridium

Ans: (2)

[2011]

Q184. Which one of the following is not a biofertilizer?

- (1) Nostoc
- (2) Agrobacterium
- (3) Mycorrhiza
- (4) Rhizobium

Ans: (2)

[2011]

Q185. Virus envelope is known as:

- (1) Nucleoprotein
- (2) Capsid

- (3) Core
 - (4) Virion
- Ans: (2)

[2011]

Q186. Which one of the following pairs is wrongly matched while the remaining three are correct?

- (1) Bryophyllum - Leaf buds
 - (2) Penicillium - Conidia
 - (3) Agave - Bulbils
 - (4) Water hyacinth - Runner
- Ans: (4)

[2011]

Q187. Organisms called methanogens are most abundant in a:

- (1) polluted stream
 - (2) sulphur rock
 - (3) hot spring
 - (4) cattle yard
- Ans: (4)

[2011]

Q188. The gametophyte is not an independent, free living generation in:

- (1) Marchantia
 - (2) Polytrichum
 - (3) Pinus
 - (4) Adiantum
- Ans: (3)

[2011]

Q189. Compared with the gametophytes of the bryophytes the gametophytes of vascular plant are

- (1) larger and have larger sex organs
 - (2) smaller but have larger sex organs
 - (3) smaller and have smaller sex organs
 - (4) larger but have smaller sex organs
- Ans: (2)

[2011]

Q190. In eubacteria, a cellular component that resembles eukaryotic cells is:

- (1) ribosomes
- (2) plasma membrane
- (3) cell wall
- (4) nucleus

Ans: (2)

[2011M]

Q191. The cyanobacteria are also referred to as

- (1) Slime moulds
- (2) protists
- (3) blue green algae
- (4) golden algae

Ans: (3)

[2011M]

Q192. The most abundant prokaryotes helpful to humans in making curd from milk and in production of antibiotics are the ones categorised as:

- (1) Chemosynthetic autotrophs
- (2) Cyanobacteria
- (3) Heterotrophic bacteria
- (4) Archaeobacteria

Ans: (3)

[2011M]

Q193.

Ans: (2)

Q194. Selaginella and Salvinia are considered to represent a significant step toward evolution of seed habit because:

- (1) megaspores possess endosperm and embryo surrounded by seed coat
- (2) female gametophyte is free and gets dispersed like seeds
- (3) embryo develops in female gametophyte which is retained on parent sporophyte.
- (4) female gametophyte lacks archaegonia

Ans: (3)

[2012]

Q195. Consider the following four statements whether they are correct or wrong? (A) The sporophyte in liverworts is more elaborate than that in mosses (B) Salvinia is heterosporous (C) The life cycle in all seed-bearing plants is diplontic (D) In Pinus male and female cones are borne on different trees

- (1) Statements (B) and (C)
- (2) Statements (A) and (C)
- (3) Statements (A) and (B)
- (4) Statements (A) and (D)

Ans: (4)

[2012]

Q196. Which one of the following sets of items in the options 1 - 4 are correctly categorized with one exception in it? Items-

Category- Exception

- (1) Plasmodium, Cuscuta, Trypanosoma -Protozoan parasites- Cuscuta
- (2) UAA, UAG, UGA -Stop codons -UAG
- (3) Typhoid, Pneumonia, Diphtheria -Bacterial diseases -Diphtheria
- (4) Kangaroo, Koala, Wombat -Australian marsupials -Wombat

Ans: (1)

[2012]

Q197. In the five-kingdom classification, Chlamydomonas and Chlorella have been included in

- (1) plantae
- (2) protista
- (3) monera
- (4) algae

Ans: (4)

[2012]

Q198. How many organisms in the list given below are autotrophs? Lactobacillus, Nostoc, Chara, Nitrosomonas, Nitrobacter, Streptomyces, Saccharomyces, Trypanosomes, Porphyra, Wolffia

- (1) Six
- (2) Four

- (3) Three
 - (4) Five
- Ans: (1)

[2012M]

Q199. Which one single organism or the pair of organisms is correctly assigned to its taxonomic group

- (1) Yeast used in making bread and beer is a fungus
- (2) Paramoecium and Plasmodium belong to the same kingdom as that of Penicillium
- (3) Nostoc and Anabaena are examples of protista
- (4) Lichen is a composite organism formed from the symbiotic association of an algae and a protozoan

Ans: (1)

[2012M]

Q200. Which statement is wrong for viruses

- (1) They have ability to synthesize nucleic acids and proteins
- (2) All are parasites
- (3) Antibiotics have no effect on them
- (4) All of them have helical symmetry

Ans: (4)

[2012M]

Q201. Sexual reproduction involving fusion of two cells in Chlamydomonas is

- (1) somatogamy
- (2) isogamy
- (3) hologamy
- (4) homogamy

Ans: (2)

[NEET 2013]

Q202. Satellite RNAs are present in some

- (1) Prions
- (2) Plant viruses
- (3) Bacteriophages
- (4) Viroids

Ans: (2)

[NEET Kar. 2013]

Q203. Specialized cells for fixing atmospheric nitrogen in Nostoc are

- (1) Hormogonia
- (2) Akinetes
- (3) Nodules
- (4) Heterocysts

Ans: (4)

[NEET Kar. 2013]

Q204. Which one of the following is true for fungi?

- (1) They are heterotrophs
- (2) They are phagotrophs
- (3) They lack nuclear membrane
- (4) They lack a rigid cell wall

Ans: (1)

[NEET Kar. 2013]

Q205. Which of the following are likely to be present in deep sea water?

- (1) Saprophytic fungi
- (2) Eubacteria
- (3) Archaeobacteria
- (4) Blue-green algae

Ans: (3)

[1988]

Q206. In Pinus/gymnosperms, the haploid structure are

- (1) megaspore, integument and root
- (2) megaspore, endosperm and embryo
- (3) pollen grain, leaf and root
- (4) megaspore, pollen grain and endosperm

Ans: (4)

[1988]

Q207. Sperms of both Funaria and Pteris were released together near the archegonia of Pteris. Only its sperms enter the archegonia as

- (1) Funaria sperms are less mobile

- (2) Pteris archegonia repel Funaria sperms
- (3) Pteris archegonia release chemical to attract its sperms
- (4) Funaria sperms get killed by Pteris sperms

Ans: (3)

[1988]

Q208. Evolutionary important character of Selaginella is

- (1) strobili
- (2) heterosporous nature
- (3) ligule
- (4) rhizophore

Ans: (2)

Q209. In gymnosperms like Pinus and Cycas, the endosperm is

- (1) diploid
- (2) triploid
- (3) tetraploid
- (4) haploid

Ans: (4)

[1989]

Q210. Prothallus (gametophyte) gives rise to fern plant (sporophyte) without fertilization. It is

- (1) parthenocarpy
- (2) apospory
- (3) parthenogenesis
- (4) apogamy

Ans: (4)

[1989]

Q211. The common mode of sexual reproduction in Chlamydomonas is

- (1) oogamous
- (2) isogamous
- (3) hologamous
- (4) anisogamous

Ans: (2)

[1990]

Q212. The product of conjugation in Spirogyra or fertilization of

Chlamydomonas is

- (1) oospore
- (2) zygosporium
- (3) carposporium
- (4) zoospore

Ans: (2)

[1990]

Q213. Protonema occurs in the life cycle of

- (1) Somatogamy
- (2) Riccia
- (3) Spirogyra
- (4) Funaria

Ans: (4)

[1990, 1993]

Q214. Moss peristome takes part in

- (1) protection
- (2) spore dispersal
- (3) absorption
- (4) photosynthesis

Ans: (2)

[1991]

Q215. Apophysis in the capsule of Funaria is

- (1) middle part
- (2) lower part
- (3) fertile part
- (4) upper part

Ans: (2)

[1991]

Q216. Which one of the following is not common between Funaria and Selaginella?

- (1) Flagellate sperms
- (2) Archegonium
- (3) Roots
- (4) Embryo

Ans: (3)

[1991]

Q217. The plant group that produces spores and embryo but lacks vascular tissues and seeds is

- (1) Bryophyta
- (2) Pteridophyta
- (3) Phaeophyta
- (4) Rhodophyta

Ans: (1)

[1991]

Q218. A plant in which sporophytic generation is represented by zygote

- (1) Chlamydomonas
- (2) Pinus
- (3) Dryopteris
- (4) Selaginella

Ans: (1)

[1992]

Q219. Bryophytes are amphibians because

- (1) they are mostly aquatic
- (2) they require a layer of water for carrying out sexual reproduction
- (3) all the above
- (4) they occur in damp places

Ans: (2)

[1992]

Q220. Which one has the largest gametophyte?

- (1) Selaginella
- (2) Cycas
- (3) Moss
- (4) Angiosperm

Ans: (3)

[1992]

Q221. Pteridophytes differ from mosses/bryophytes in possessing

- (1) archegonia
- (2) independent gametophyte
- (3) flagellate spermatozoids

(4) well developed vascular system

Ans: (4)

[1992]

Q222. Turpentine is obtained from

(1) Gymnospermous wood

(2) Angiospermous wood

(3) Ferns

(4) Pteridophytes

Ans: (1)

[1992]

Q223. Resin and turpentine are obtained from

(1) Cedrus

(2) Cycas

(3) Abies

(4) Pinus

Ans: (4)

Q224. In Pinus, the pollen grain has 6 chromosomes then in its endosperm will have

(1) 6

(2) 12

(3) 24

(4) 18

Ans: (1)

[1992]

Q225. A plant having seeds but lacking flowers and fruits belongs to

(1) Ferns

(2) Pteridophytes

(3) Gymnosperms

(4) Mosses

Ans: (3)

[1993]

Q226. Which one is the most advanced from evolutionary point of view.

- (1) Chlamydomonas
- (2) Selaginella
- (3) Pinus
- (4) Funaria

Ans: (3)

[1993]

Q227. Pinus differs from mango in having

- (1) ovules not enclosed in ovary
- (2) tree habit
- (3) wood
- (4) green leaves

Ans: (1)

[1993]

Q228. Pyrenoids are the centres for formation of

- (1) fat
- (2) porphyrin
- (3) starch
- (4) enzymes

Ans: (3)

Q229. Chloroplast of Chlamydomonas is

- (1) collar-shaped
- (2) stellate
- (3) spiral
- (4) cup-shaped

Ans: (4)

[1993]

Q230. In Ulothrix/Spirogyra, reduction division (meiosis) occurs at the time of

- (1) zygospore germination
- (2) gamete formation
- (3) vegetative reproduction
- (4) zoospore formation

Ans: (1)

[1993]

Q231. The absence of chlorophyll, in the lowermost cell of

Ulothrix, shows

- (1) cell characteristic
- (2) functional fission
- (3) beginning of labour division
- (4) tissue formation

Ans: (3)

Q232. Which of the following cannot fix nitrogen?

- (1) Spirogyra
- (2) Nostoc
- (3) Anabaena
- (4) Azotobacter

Ans: (1)

Q233. In Chlorophyceae, sexual reproduction occurs by

- (1) Oogamy only
- (2) Isogamy and anisogamy
- (3) Anisogamy and oogamy
- (4) Isogamy, anisogamy and oogamy

Ans: (4)

[1994]

Q234. Unique features of Bryophytes is that they

- (1) lack roots
- (2) produce spores
- (3) lack vascular tissues
- (4) have sporophyte attached to gametophyte

Ans: (4)

[1994]

Q235. The 'wing' of Pinus seed is derived from

- (1) surface of ovuliferous scale
- (2) testa
- (3) all the above
- (4) testa and tegmen

Ans: (1)

[1995]

Q236. In which one of these the elaters are present along with

mature spores in the capsule (to help in spore dispersal)?

- (1) Funaria
- (2) Riccia
- (3) Sphagnum
- (4) Marchantia

Ans: (4)

[1995]

Q237. The 'amphibians' of plant kingdom are

- (1) bryophytes with simple internal organization
- (2) unicellular motile algae
- (3) pteridophytes with complex internal organization not reaching angiosperm level.
- (4) multicellular non-motile algae

Ans: (1)

[1995]

Q238. A well developed archegonium with neck consisting of 4-6 rows of neck canal cells, characterises

- (1) Pteridophytes and gymnosperms
- (2) Gymnosperms only
- (3) Gymnosperms and flowering plants
- (4) Bryophytes and pteridophytes

Ans: (4)

[1995]

Q239. The plant body of moss (Funaria) is

- (1) predominantly sporophyte with gametophyte
- (2) completely sporophyte
- (3) predominantly gametophyte with sporophyte
- (4) completely gametophyte

Ans: (3)

Q240. Agar is commercially obtained from

- (1) brown algae
- (2) red algae
- (3) blue-green algae
- (4) green algae

Ans: (2)

[1996]

Q241. Multicellular branched rhizoids and leafy gametophytes are characteristic of

- (1) all pteridophytes
- (2) all bryophytes
- (3) some pteridophytes
- (4) some bryophytes

Ans: (4)

[1996]

Q242. An alga very rich in protein is

- (1) Oscillatoria
- (2) Spirogyra
- (3) Chlorella
- (4) Ulothrix

Ans: (3)

[1996, 97, 2003]

Q243. Blue-green algae belong to

- (1) Rhodophyceae
- (2) Eukaryotes
- (3) Chlorophyceae
- (4) Prokaryotes

Ans: (4)

[1996]

Q244. Which one of the following is a living fossil?

- (1) Ginkgo
- (2) Pinus
- (3) Thuja
- (4) Opuntia

Ans: (1)

[1997]

Q245. Seed-habit first originated in

- (1) certain monocots
- (2) certain ferns
- (3) primitive dicots
- (4) certain pines

Ans: (2)

[1997]

Q246. Ulothrix can be described as a

- (1) membranous alga producing zoospores
- (2) non-motile colonial alga lacking zoospores
- (3) filamentous alga with flagellated reproductive stages
- (4) filamentous alga lacking flagellated reproductive stages

Ans: (3)

[1997]

Q247. Which one of the following statements about Cycas is incorrect?

- (1) Its xylem is mainly composed of xylem vessels
- (2) It does not have a well-organized female flower
- (3) Its roots contain some blue-green algae.
- (4) It has circinate vernation

Ans: (1)

[1997]

Q248. Brown algae is characterised by the presence of

- (1) fucoxanthin
- (2) phycocyanin
- (3) haematochrome
- (4) phycoerythrin

Ans: (1)

[1997]

Q249. Bryophytes can be separated from algae because they

- (1) possess archegonia with outer layer of sterile cells
- (2) are thalloid forms
- (3) contain chloroplasts in their cells
- (4) have no conducting tissue

Ans: (1)

[1998]

Q250. Ulothrix filaments produce

- (1) heterogametes
- (2) isogametes
- (3) basidiospores

(4) anisogametes

Ans: (2)

[1998]

Q251. Bryophytes comprise

- (1) dominant phase of gametophyte which produces spores
- (2) sporophyte of longer duration
- (3) small sporophyte phase and generally parasitic on gametophyte.
- (4) dominant phase of sporophyte which is parasitic

Ans: (3)

[1998]

Q252. The antherozoids of Funaria are

- (1) multiciliated
- (2) aciliated
- (3) monociliated
- (4) flagellated

Ans: (4)

Q253. Largest sperms in the plant world are found in

- (1) Cycas
- (2) Pinus
- (3) Thuja
- (4) Banyan

Ans: (1)

[1998]

Q254. The “walking” fern is so named because

- (1) it knows how to walk by itself
- (2) it is dispersed through the agency of walking animals
- (3) its spores are able to walk
- (4) it propagates vegetatively by its leaf tips

Ans: (4)

[1999]

Q255. Bryophytes are dependent on water because

- (1) the sperms can easily reach upto egg in the archegonium
- (2) water is essential for fertilization for their homosporous nature
- (3) archegonium has to remain filled with water for fertilization
- (4) water is essential for their vegetative propagation

Ans: (1)

[1999]

Q256. The largest ovules, largest male and female gametes and largest plants are found among

- (1) Gymnosperms
- (2) Angiosperms
- (3) Dicotyledonous plants
- (4) Tree ferns and some monocots

Ans: (1)

[1999, 2000]

Q257. Dichotomous branching is found in

- (1) Liverworts
- (2) Fern
- (3) Marchantia
- (4) Funaria

Ans: (3)

[1999]

Q258. Columella is a specialised structure found in the sporangium of

- (1) Spirogyra
- (2) Ulothrix
- (3) None of these
- (4) Rhizopus

Ans: (4)

[1999]

Q259. Which of the following is true about bryophytes?

- (1) They are thalloid
- (2) They possess archegonia
- (3) All of these
- (4) They contain chloroplast

Ans: (3)

[1999]

Q260. In which of the following would you place the plants having vascular tissue lacking seeds?

- (1) Pteridophytes

- (2) Algae
- (3) Gymnosperms
- (4) Bryophytes

Ans: (1)

Q261. Cycas have two cotyledons but not included in angiosperms because of

- (1) Circinate ptyxis
- (2) Naked ovules
- (3) Compound leaves
- (4) Seems like monocot

Ans: (2)

[2000]

Q262. A research student collected certain alga and found that its cells contained both chlorophyll a and chlorophyll b as well as phycoerythrin. The alga belongs to

- (1) Chlorophyceae
- (2) Rhodophyceae
- (3) Phaeophyceae
- (4) Bacillariophyceae

Ans: (2)

[2000]

Q263. Floridean starch is found in

- (1) Myxophyceae
- (2) Chlorophyceae
- (3) Cyanophyceae
- (4) Rhodophyceae

Ans: (4)

[2000]

Q264. One of the most important reasons why wild plants should thrive is that they are good sources of

- (1) genes for resistance to disease and pests
- (2) highly nutritive animal feed
- (3) very rare and highly sought after fruits of medical importance
- (4) unsaturated edible oils

Ans: (1)

[2000]

Q265. In Ferns meiosis occurs when

- (1) spores are formed
- (2) spore germinates
- (3) antheridia and archegonia are formed
- (4) gametes are formed

Ans: (1)

[2001]

Q266. Which one pair of examples will correctly represent the grouping Spermatophyta according to one of the schemes of classifying plants?

- (1) Pinus, Cycas
- (2) Ginkgo, Pisum
- (3) Rhizopus, Triticum
- (4) Acacia, Sugarcane

Ans: (2)

[2002]

Q267. Which one of the following pairs of plants are not seed producers?

- (1) Funaria and Ficus
- (2) Funaria and Pinus
- (3) Ficus and Chlamydomonas
- (4) Fern and Funaria

Ans: (4)

[2002]

Q268. Sexual reproduction in Spirogyra is an advanced feature because it shows

- (1) same size of motile sex organs
- (2) physiologically differentiated sex organs
- (3) morphologically different sex organs
- (4) different sizes of motile sex organs

Ans: (2)

[2003]

Q269. Which of the following is without exception in

angiosperms?

- (1) secondary growth
- (2) presence of vessels
- (3) autotrophic nutrition
- (4) double fertilisation

Ans: (4)

[2003]

Q270. Which of the following plants produces seeds but not flowers?

- (1) Peepal
- (2) Maize
- (3) Pinus
- (4) Mint

Ans: (3)

[2003]

Q271. Peat Moss is used as a packing material for sending flowers and live plants to distant places because

- (1) it serves as a disinfectant
- (2) it is hygroscopic
- (3) it is easily available
- (4) It reduces transpiration

Ans: (2)

[2004]

Q272. In a moss the sporophyte

- (1) manufactures food for itself as well as for the gametophyte
- (2) produces gametes that give rise to the gametophyte
- (3) is partially parasitic on the gametophyte
- (4) arises from a spore produced from the gametophyte

Ans: (3)

Q273. Match items in Column I with those in Column II: Column I Column II (A) Peritrichous (J) Ginkgo flagellation (B) Living fossil (K) Macrocystis (C) Rhizophore (L) Escherichia coli (D) Smallest (M) Selaginella flowering plant (E) Largest perennial (N) Wolffia alga Select the correct answer from the following:

- (1) A-N; B-L; C-K; D-N; E-J;
- (2) A-L; B-J; C-M; D-N; E-K;
- (3) A-J; B-K; C-N; D-L; E-K
- (4) A-K; B-J; C-L; D-M; E-N

Ans: (2)

Q274. Which one of the following is a living fossil?

- (1) Saccharomyces
- (2) Cycas
- (3) Spirogyra
- (4) Moss [2003, 04]

Ans: (2)

[2006]

Q275. Which of the following propagates through leaf- tip?

- (1) Marchantia
- (2) Walking fern
- (3) Moss
- (4) Sproux-leaf plant

Ans: (2)

[2006]

Q276. In gymnosperms, the pollen chamber represents

- (1) the microsporangium in which pollen grains develop
- (2) a cavity in the ovule in which pollen grains are stored after pollination
- (3) a cell in the pollen grain in which the sperms are formed.
- (4) an opening in the megagametophyte through which the pollen tube approaches the egg

Ans: (1)

[2006]

Q277. Flagellated male gametes are present in all the three of which one of the following sets?

- (1) Riccia, Dryopteris and Cycas
- (2) Zygnema, Saprolegnia and Hydrilla
- (3) Anthoceros, Funaria and Spirogyra
- (4) Fucus, Marsilea and Calotropis

Ans: (1)

[2007]

Q278. If you are asked to classify the various algae into distinct groups, which of the following characters you should choose?

- (1) chemical composition of the cell wall
- (2) nature of stored food materials in the cell
- (3) types of pigments present in the cell.
- (4) structural organization of thallus

Ans: (3)

[2007]

Q279. In the prothallus of a vascular cryptogam, the antherozoids and eggs mature a different times. As a result

- (1) self-fertilization is prevented
- (2) there is high degree of sterility
- (3) there is no change in success rate of fertilization
- (4) one can conclude that the plant is apomictic

Ans: (1)

[2007]

Q280. Conifers differ from grasses in the

- (1) formation of endosperm before fertilization
- (2) lack of xylem tracheids
- (3) production of seeds from ovules
- (4) absence of pollen tubes

Ans: (1)

[2007]

Q281. Which one of the following plants is monoecious?

- (1) Papaya
- (2) Pinus
- (3) Marchantia
- (4) Cycas

Ans: (2)

[2007]

Q282. Select one of the following pairs of important features distinguishing Gnetum from Cycas and Pinus and showing affinities with angiosperms

- (1) perianth and two integuments
- (2) absence of resin duct and leaf venation

- (3) embryo development and apical meristem
 - (4) presence of vessel elements and absence of archegonia
- Ans: (4)

[2008]

Q283. Which one of the following is heterosporous?

- (1) Adiantum
- (2) Dryopteris
- (3) Equisetum
- (4) Salvinia

Ans: (4)

Q284. In which one of the following, male and female gametophytes do not have free living independent existence?

- (1) Polytrichum
- (2) Pteris
- (3) Cedrus
- (4) Funaria

Ans: (3)

[2008]

Q285. Spore dissemination in some liverworts is aided by

- (1) peristome teeth
- (2) indusium
- (3) elaters
- (4) calyptra

Ans: (3)

[2009]

Q286. Some hyperthermophilic organisms that grow in highly acidic (pH2) habitats belong to the two groups:

- (1) Protists and mosses
- (2) Eubacteria and archaea
- (3) Liverworts and yeasts
- (4) Cyanobacteria and diatoms

Ans: (2)

[2009]

Q287. Algae have cell wall made up of:

- (1) pectins, cellulose and proteins

- (2) cellulose, galactans and mannans
- (3) cellulose, hemicellulose and pectins
- (4) hemicellulose, pectins and proteins

Ans: (2)

[2009]

Q288. Male and female gametophytes are independent and free - living in:

- (1) Pinus
- (2) Mustard
- (3) Sphagnum
- (4) Castor

Ans: (3)

[2010]

Q289. Which one of the following is a vascular cryptogam?

- (1) Cedrus
- (2) Ginkgo
- (3) Equisetum
- (4) Marchantia

Ans: (3)

[2010]

Q290. Which one of the following has haplontic life cycle?

- (1) Wheat
- (2) Polytrichum
- (3) Funaria
- (4) Ustilago

Ans: (4)

[2010]

Q291. Read the following five statements (A - E) and answer the question. (A) In Equisetum the female gametophyte is retained on the parent sporophyte. (B) In Ginkgo male gametophyte is not independent. (C) The sporophyte in Riccia is more developed than that in Polytrichum. (D) Sexual reproduction in Volvox is isogamous. (E) The spores of slime molds lack cell walls. How many of the above statements are correct?

- (1) Four
- (2) Two
- (3) One
- (4) Three

Ans: (2)

[2011M]

Q292. Which one of the following is common to multicellular fungi, filamentous algae and protonema of mosses

- (1) Mode of Nutrition
- (2) Diplontic life cycle
- (3) Multiplication by fragmentation
- (4) Members of kingdom plantae

Ans: (3)

[2012]

Q293. Which one of the following is a correct statement?

- (1) Antheridiophores and archegoniophores are present in pteridophytes.
- (2) Pteridophyte gametophyte has a protonemal and leafy stage
- (3) Origin of seed habit can be traced in pteridophytes
- (4) In gymnosperms female gametophyte is free-living

Ans: (3)

[2012]

Q294. Cycas and Adiantum resemble each other in having:

- (1) Cambium
- (2) Seeds
- (3) Vessels
- (4) Motile Sperms

Ans: (4)

[2012]

Q295. In angiosperms, functional megaspore develops into

- (1) endosperm
- (2) embryo sac
- (3) pollen sac
- (4) ovule

Ans: (2)

[2012M]

Q296. Which of the following is not correctly matched for the organism and its cell wall degrading enzyme?

- (1) Fungi-Chitinase
- (2) Plant cells-Cellulase
- (3) Bacteria-Lysozyme
- (4) Algae-Methylase

Ans: (4)

[2012M]

Q297. Read the following statements (A-E) and answer the question which follows them. 1. In liverworts, mosses and ferns gametophytes are free-living 2. Gymnosperms and some ferns are heterosporous. 3. Sexual reproduction in Fucus, Volvox and Albugo is oogamous 4. The sporophyte in liverworts is more elaborate than that in mosses 5. Both, Pinus and Marchantia are dioecious How many of the above statements are correct?

- (1) Four
- (2) Two
- (3) One
- (4) Three

Ans: (4)

[NEET 2013]

Q298. Isogamous condition with non-flagellated gametes is found in:

- (1) Fucus
- (2) Spirogyra
- (3) Chlamydomonas
- (4) Volvox

Ans: (2)

[NEET 2013]

Q299. Besides paddy fields cyanobacteria are also found inside vegetative part of:

- (1) Psilotum
- (2) Cycas
- (3) Pinus

(4) Equisetum

Ans: (2)

[NEET 2013]

Q300. Which one of the following pairs is wrongly matched?

- (1) Viroids - RNA
- (2) Ginkgo - Archegonia
- (3) Mustard - Synergids
- (4) Salvinia - Prothallus

Ans: (2)

[NEET 2013]

Q301. Organ Pipe Coral is

- (1) Helipora
- (2) Tubipora
- (3) Fungia
- (4) Astraea

Ans: (2)

[NEET Kar. 2013]

Q302. Animals/organisms floating on the surface of water are

- (1) benthos
- (2) plankton
- (3) neritic
- (4) pelagic

Ans: (2)

[NEET Kar. 2013]

Q303. Which one of the following is wrongly matched?

- (1) Sargassum-Chlorophyll c
- (2) Nostoc-Water blooms
- (3) Basidiomycetes-Puffballs
- (4) Spirogyra-Motile gametes

Ans: (4)

[NEET Kar. 2013]

Q304. What is common in all the three, Funaria, Dryopteris and Ginkgo?

- (1) Well developed vascular tissues
- (2) Independent sporophyte

- (3) Independent gametophyte
- (4) Presence of archegonia

Ans: (4)

[1988]

Q305. The plant body is thalloid in

- (1) Salvinia
- (2) Funaria
- (3) Marchantia
- (4) Sphagnum

Ans: (3)

[1988]

Q306. Fire bellied toad is

- (1) Necturus
- (2) Amphiuma
- (3) Salamandra
- (4) Discoglossus

Ans: (4)

[1988]

Q307. Which is not a true amphibian animal

- (1) Tortoise
- (2) Salamander
- (3) Frog
- (4) Toad

Ans: (1)

[1988]

Q308. Association between Sucker Fish (Remora) and Shark is

- (1) Predation
- (2) Commensalism
- (3) Parasitism
- (4) Symbiosis

Ans: (2)

[1988]

Q309. A wood boring mollusc/Shipworm is

- (1) Limax
- (2) Chiton

- (3) Patella
 - (4) Teredo
- Ans: (4)

[1988]

Q310. Silk thread is obtained from Silk Moth during

- (1) nymph state
- (2) pupal state
- (3) adult state
- (4) larval state

Ans: (2)

[1988]

Q311. Bird vertebrae are

- (1) amphicoelous
- (2) acoelous
- (3) procoelous
- (4) heterocoelous

Ans: (4)

[1988]

Q312. Feet of king fisher are modified for

- (1) running
- (2) wading
- (3) catching
- (4) perching

Ans: (2)

[1988]

Q313. Both male and female pigeons secrete milk through

- (1) Crop
- (2) Salivary glands
- (3) Gizzard
- (4) Modified sweat glands

Ans: (1)

[1988]

Q314. Typhlops is

- (1) Blind Snake
- (2) Sea Snake

(3) Grass Snake

(4) Glass Snake

Ans: (1)

[1988]

Q315. Necturus is

(1) Mud Puppy

(2) Hell Bender

(3) Blind Worm

(4) Congo Eel

Ans: (1)

[1988]

Q316. Transfer of Taenia to secondary host occurs as

(1) morula

(2) onchosphere

(3) egg.

(4) cysticercus

Ans: (2)

[1988]

Q317. Jelly Fishes belongs to class

(1) Anthozoa

(2) Hydrozoa

(3) None of these

(4) Scyphozoa

Ans: (4)

[1988]

Q318. Fish which can be used in biological control of mosquitoes/Larvicidal fish is

(1) Cat Fish

(2) Eel

(3) Gambusia

(4) Carp

Ans: (3)

[1989, 01]

Q319. Lamina propria is connected with

(1) graafian follicle

- (2) acini
- (3) intestine
- (4) liver

Ans: (3)

[1989]

Q320. Hair occur in all mammals except those of

- (1) Primata
- (2) Rodentia
- (3) Cetacea
- (4) Chiroptera

Ans: (3)

[1989]

Q321. Wish bone of birds is from

- (1) hind limbs
- (2) pelvic girdle
- (3) pectoral girdle/clavicles
- (4) skull

Ans: (3)

[1989]

Q322. Flight muscles of birds are attached to

- (1) scapula
- (2) clavicle
- (3) coracoid
- (4) keel of sternum

Ans: (4)

[1989]

Q323. A chordate character is

- (1) postanal tail
- (2) gills
- (3) chitinous exoskeleton
- (4) spiracles

Ans: (1)

[1989]

Q324. Earthworms are

- (1) more useful than harmful

- (2) useful
- (3) more harmful
- (4) harmful

Ans: (2)

[1989]

Q325. Photoreceptors of earthworm occur on

- (1) dorsal surface
- (2) clitellum
- (3) lateral sides
- (4) many eyes

Ans: (1)

[1989]

Q326. Blood of Pheretima is

- (1) red with haemoglobin in corpuscles
- (2) blue with haemocyanin in corpuscles
- (3) red with haemoglobin in plasma
- (4) blue with haemocyanin in plasma

Ans: (3)

[1989]

Q327. Pheretima posthuma is highly useful as

- (1) they are used as fish meal
- (2) their burrows make the soil loose
- (3) they kill the birds due to biomagnification of chlorinated hydrocarbons
- (4) they make the soil porous, leave their castings and take organic debris in the soil

Ans: (4)

[1990]

Q328. Taenia saginata differs from Taenia solium in

- (1) absence of scolex hooks and presence of both male and female reproductive organs
- (2) absence of scolex hooks
- (3) presence of scolex hooks
- (4) absence of scolex hooks and uterine branching

Ans: (4)

[1990]

Q329. Onchosphere occurs in

- (1) Taenia
- (2) Ascaris
- (3) Planaria
- (4) Fasciola

Ans: (1)

[1990]

Q330. Eutherians are characterised by

- (1) ovoviviparity
- (2) hairy skin
- (3) glandular skin
- (4) true placentation

Ans: (4)

[1990]

Q331. Ecdysis is shedding of

- (1) dermis
- (2) stratum corneum
- (3) stratum Malpighi
- (4) epidermis

Ans: (2)

[1990]

Q332. Penguin occurs in

- (1) Africa
- (2) Australia
- (3) America
- (4) Antarctica

Ans: (4)

[1990]

Q333. Kala-azar and Oriental Sore are spread by

- (1) Sand Fly
- (2) Housefly
- (3) Fruit Fly
- (4) Bed Bug

Ans: (1)

[1990]

Q334. Malpighian tubules are

- (1) respiratory organs of insects
- (2) excretory organs of insects
- (3) respiratory organs of annelids
- (4) excretory organs of annelids

Ans: (2)

[1990]

Q335. In hot summer and cold winter, the number of malaria cases as well as Anopheles declines, Reappearance of malaria in humid warm conditions is due to

- (1) monkeys
- (2) surviving malarial parasites in human carriers
- (3) mosquito larvae in permanent waters
- (4) surviving sporozoites in surviving mosquitoes

Ans: (4)

[1990]

Q336. Classification of Porifera is based on

- (1) reproduction
- (2) branching
- (3) symmetry
- (4) spicules

Ans: (4)

[1990]

Q337. The excretory structures of flatworms/Taenia are

- (1) malpighian tubules
- (2) flame cells
- (3) green glands
- (4) protonephridia

Ans: (2)

[1991]

Q338. Bladderworm/cysticercus is the larval stage of

- (1) Pinworm
- (2) Tapeworm
- (3) Liver Fluke
- (4) Roundworm

Ans: (2)

[1991]

Q339. Earthworm possesses hearts

- (1) 2 pairs
- (2) 6 pairs
- (3) 1
- (4) 4 pairs

Ans: (4)

[1991]

Q340. Skin is a respiratory organ in

- (1) primitive mammals
- (2) lizards
- (3) frog
- (4) birds

Ans: (3)

[1991]

Q341. Which one occurs in Echinodermata

- (1) Porous body
- (2) Bilateral symmetry
- (3) Soft skin
- (4) Radical symmetry

Ans: (4)

[1991]

Q342. An insect regarded as greatest mechanical carrier of diseases is

- (1) Musca
- (2) Pediculus
- (3) Xenopsylla
- (4) Cimex

Ans: (1)

[1991]

Q343. Metamorphosis of insects is regulated through hormone

- (1) ecdysone
- (2) pheromone
- (3) all the above

(4) thyroxine

Ans: (1)

[1991]

Q344. Male and female cockroaches can be distinguished externally through

(1) anal style and antennae in females

(2) anal styles in male

(3) both b and c

(4) anal cerci in female

Ans: (2)

[1991]

Q345. *Ascaris lumbricoides* infection occurs through

(1) improperly cooked measly pork

(2) sole of uncovered feet

(3) from air through inhalation

(4) contaminated cooked measly pork

Ans: (4)

[1991]

Q346. *Ascaris* larva is called

(1) hexacanth

(2) cysticercus

(3) onchosphere

(4) rhabditiform

Ans: (4)

[1991]

Q347. What is correct about *Taenia*?

(1) Female organs occur in anterior proglottides

(2) Male organs occur in posterior proglottides

(3) Mature proglottides contain both male and female organs

(4) Male organs occur in anterior proglottides

Ans: (3)

[1992]

Q348. The simplest type of canal system in Porifera is

(1) sycon type

(2) ascon type

- (3) radial type
- (4) leucon type

Ans: (2)

[1992]

Q349. An egg laying mammal is

- (1) Koala
- (2) Kangaroo
- (3) Whale
- (4) Platypus

Ans: (4)

[1992]

Q350. Kidney of adult rabbit is

- (1) mesonephros
- (2) pronephros
- (3) opisthonephros
- (4) metanephros

Ans: (4)

[1992]

Q351. Star fish belongs to

- (1) Holothuroidea
- (2) Asterozoa
- (3) Crinozoa
- (4) Ophiurozoa

Ans: (2)

[1992]

Q352. Eye of the molluscan group that resembles vertebrate eye is

- (1) pelecypoda
- (2) bivalvia
- (3) cephalopoda
- (4) gastropoda

Ans: (3)

[1992]

Q353. Adult Culex and Anopheles can be distinguished with the help of

- (1) antennae/wings
- (2) mouth parts/colour
- (3) feeding habits
- (4) sitting posture

Ans: (4)

[1992]

Q354. Sound box of birds is called

- (1) syrinx
- (2) pygostyle
- (3) synsacrum
- (4) larynx

Ans: (1)

[1992]

Q355. A. *Periplaneta americana* is nocturnal, omnivorous, household pest. R. It is because it acts as scavenger

- (1) Both A and R are true and R is correct explanation of A
- (2) A is true but R is false
- (3) Both A and R are true but R is not correct explanation of A
- (4) A is false but R is true

Ans: (1)

[1992]

Q356. Gorilla, Chimpanzee, Monkeys and Humans belongs to the same

- (1) family
- (2) species
- (3) order
- (4) genus

Ans: (3)

[1992]

Q357. What is common in Whale, Bat and Rat?

- (1) Extra-abdominal testes to avoid high temperature of body
- (2) Absence of neck
- (3) Presence of external ears
- (4) Muscular diaphragm between thorax and abdomen

Ans: (4)

[1992]

Q358. The cervical vertebrae in humans is

- (1) double than that of horse
- (2) same as in whale
- (3) less than that in giraffe
- (4) more than that in rabbit

Ans: (2)

[1993]

Q359. Bull Frog of India is

- (1) R. ecutesbeiana
- (2) Rana tigrina
- (3) R. esculenta
- (4) R. sylvatica

Ans: (2)

Q360. Aristotle's lantern occurs in class

- (1) Holothuroidea
- (2) Echinoidea
- (3) Ophiuroidea
- (4) Asteroidea

Ans: (2)

[1993]

Q361. Give the correct matching of causative agent/ germ and disease

- (1) Glossina – Kala-azar
- (2) Anopheles – malaria
- (3) Wuchereria – Filariasis
- (4) Leishmania – Sleeping sickness

Ans: (3)

[1993]

Q362. Tracheae of cockroach and mammal are similar in having

- (1) ciliated inner lining
- (2) paried nature
- (3) origin from head
- (4) noncollapsible walls

Ans: (4)

[1993]

Q363. A larval stage occurs in the life history of all members of the group

- (1) housefly, earthworm and mosquito
- (2) frog, lizard and cockroach
- (3) butterfly, frog and mosquito
- (4) ascaris, housefly and frog

Ans: (3)

[1993]

Q364. Mucus helps frog in forming

- (1) smooth skin
- (2) thick skin
- (3) moist skin
- (4) dry skin

Ans: (3)

[1993]

Q365. All vertebrates possess

- (1) four chambered ventral heart
- (2) renal portal system
- (3) pharyngeal gill slits
- (4) dorsal hollow central nervous system

Ans: (4)

[1993]

Q366. What is common between Ostrich, Penguin and Kiwi?

- (1) Flightless birds
- (2) Running birds
- (3) Four toed birds
- (4) Migratory birds

Ans: (1)

[1993]

Q367. Which one assists in locomotion

- (1) Clitellum in Pheretima
- (2) Trichocysts in Paramecium
- (3) Posterior sucker in Hirudinaria
- (4) Pedicellariae of Star Fish

Ans: (3)

[1993]

Q368. What is true about *Taenia saginata*?

- (1) Rostellar hooks are absent
- (2) Life history has pig as intermediate host
- (3) Rostellum has double circle of hooks
- (4) There are two large suckers on scolex

Ans: (1)

[1993]

Q369. Which one of the following animals possesses nerve cells but no nerves

- (1) Earthworm
- (2) Hydra
- (3) Frog's tadpole
- (4) Tapeworm

Ans: (2)

[1993]

Q370. Budding is a normal mode of asexual reproduction in

- (1) tapeworm and Hydra
- (2) starfish and Hydra
- (3) sponge and starfish
- (4) hydra and sponges

Ans: (4)

[1993]

Q371. Which one belongs to Platyhelminthes?

- (1) Plasmodium
- (2) Schistosoma
- (3) Wuchereria
- (4) Trypanosoma

Ans: (2)

[1994]

Q372. Point out the non-parasite

- (1) Leech
- (2) Tapeworm
- (3) Sea anemone

(4) Mosquito

Ans: (3)

[1994]

Q373. Special character of Coelenterates is

(1) flame cells

(2) polymorphism

(3) hermaphroditism

(4) nematocysts

Ans: (4)

[1994]

Q374. Coelom derived from blastocoel is known as

(1) pseudocoelom

(2) enterocoelom

(3) haemocoelom

(4) schizocoel

Ans: (1)

[1994]

Q375. Radial symmetry is often exhibited by animals having

(1) benthos/sedentary living

(2) one opening of alimentary canal

(3) ciliary mode of feeding

(4) aquatic mode of living

Ans: (1)

[1994]

Q376. Golden era/age of reptiles is

(1) recent

(2) palaeozoic

(3) proterozoic

(4) mesozoic

Ans: (4)

[1994]

Q377. A common characteristic of all vertebrates is

(1) presence of two pairs of functional appendages

(2) presence of skull

(3) body is covered with an exoskeleton

(4) division of body into head, neck, trunk and tail

Ans: (2)

[1994]

Q378. All chordates possess

- (1) skull
- (2) exoskeleton
- (3) axial skeletal rod of notochord
- (4) limbs

Ans: (3)

[1994]

Q379. Tube feet occur in

- (1) Cuttle Fish
- (2) Cockroach
- (3) Cat Fish
- (4) Star Fish

Ans: (4)

Q380. Closed circulatory system occurs in

- (1) cuttle Fish
- (2) snail
- (3) all of these
- (4) cockroach

Ans: (1)

[1994]

Q381. True coelom is the space lying between the alimentary canal and body wall enclosed by the layers of

- (1) mesoderm on one side and ectoderm on the other
- (2) ectoderm on both sides
- (3) mesoderm on both sides
- (4) endoderm on one side and ectoderm on the other

Ans: (3)

[1995]

Q382. Radial symmetry is usually associated with

- (1) creeping mode of locomotion
- (2) aquatic mode of life
- (3) sedentary mode of life

(4) lower grade of organisation

Ans: (4)

[1995]

Q383. Pneumatic bones are expected to be found in

(1) frog's tadpole

(2) pigeon

(3) flying fish

(4) house lizard

Ans: (2)

[1996]

Q384. Besides annelida and arthropoda, the metamerism is exhibited by

(1) mollusca

(2) cestoda

(3) acanthocephala

(4) chordata

Ans: (4)

Q385. The organisms attached to the substratum, generally, possess

(1) asymmetrical body

(2) radial symmetry

(3) cilia on surface to create water current

(4) one single opening of digestive canal

Ans: (2)

[1996]

Q386. The long bones are hollow and connected by air passages these are characteristics of

(1) aves

(2) mammals

(3) all land vertebrates

(4) reptilia

Ans: (1)

[1996]

Q387. What is common among silverfish, scorpion, crab and honey

bee?

- (1) Jointed legs
- (2) Compound eyes
- (3) Metamorphosis
- (4) Poison gland

Ans: (1)

[1996]

Q388. The flightless bird Cassowary is found in

- (1) New Zealand
- (2) Mauritius
- (3) Indonesia
- (4) Australia

Ans: (4)

Q389. Functionwise, just as there are nephridia in an earthworm, so are

- (1) flame cells in liver fluke
- (2) parotid glands in toad
- (3) myotomes in fish
- (4) statocysts in prawn

Ans: (1)

[1997]

Q390. What is true about all sponges without exception

- (1) They have a mixed skeleton consisting of spicules and spongin fibres
- (2) They are all marine
- (3) They reproduce only asexually by budding
- (4) They have flagellated collar cells

Ans: (4)

Q391. What is common between *Ascaris lumbricoides* and *Anopheles stephensi*?

- (1) Anaerobic respiration
- (2) Sexual dimorphism
- (3) Metamerism
- (4) Hibernation

Ans: (2)

[1998]

Q392. Indicate the correct statement

- (1) Rat bears cloaca
- (2) Camel has biconcave red blood cells
- (3) Platypus lays eggs
- (4) Bat bears feathers

Ans: (3)

[1998]

Q393. Cell-tissue-body organisation is characteristic of

- (1) Liver fluke
- (2) Star fish
- (3) Sponge
- (4) Hydra

Ans: (4)

[2000]

Q394. In desert grasslands which type of animals are relatively more abundant?

- (1) Fussorial
- (2) Arboreal
- (3) Diurnal
- (4) Aquatic

Ans: (1)

[2000]

Q395. Most appropriate term to describe the life cycle of Obelia is

- (1) alternation of generations
- (2) metagenesis
- (3) neoteny
- (4) metamorphosis

Ans: (2)

[2000]

Q396. In which of the animals dimorphic nucleus is found?

- (1) Plasmodium vivax
- (2) Amoeba proteus
- (3) Paramecium caudatum

(4) Trypanosoma gambiense

Ans: (3)

[2001]

Q397. In which of the following notochord is present in embryonic stage?

(1) Vertebrates

(2) All chordates

(3) Non chordates

(4) Some chordates

Ans: (2)

[2001]

Q398. Cause of mimicry is

(1) protection (defence)

(2) concealment

(3) both

(4) attack (offence)

Ans: (2)

[2002]

Q399. In which of the following, haemocyanin pigment is found?

(1) Echinodermata

(2) Mollusca

(3) Lower chordata

(4) Annelida

Ans: (2)

[2002]

Q400. In which of the following animal post anal tail is found?

(1) Scorpion

(2) Earthworm

(3) Cobra

(4) Lower invertebrate

Ans: (3)

[2002, 05]

Q401. One of the following is a very unique feature of the mammalian body:

(1) Four chambered heart

- (2) Homeothermy
- (3) Rib cage
- (4) Presence of diaphragm

Ans: (4)

[2003]

Q402. Sycon belongs to a group of animals, which are best described as

- (1) multicellular without any tissue organization
- (2) multicellular having tissue organization, but no body cavity
- (3) multicellular with a gastrovascular system
- (4) unicellular or acellular

Ans: (1)

[2003]

Q403. During its life-cycle, Fasciola hepatica (liver fluke) infects its intermediate host and primary host at the following larval stages respectively:

- (1) cercaria and redia
- (2) miracidium and metacercaria
- (3) metacercaria and cercaria
- (4) redia and miracidium

Ans: (4)

[2003]

Q404. Given below are four matchings of an animal and its kind of respiratory organ: (A) Silver fish – trachea (B) Scorpion – book lung (C) Sea squirt – pharyngeal gills (D) Dolphin – skin The correct matchings are

- (1) A, B and C
- (2) C and D
- (3) B and D
- (4) A and D

Ans: (1)

[2003]

Q405. Which one of the following is a matching pair of an animal and a certain phenomenon it exhibits?

- (1) Musca – Complete metamorphosis
- (2) Taenia – Polymorphism
- (3) Chameleon – Mimicry
- (4) Pheretima – Sexual dimorphism

Ans: (1)

[2004]

Q406. In contrast to Annelids the Platyhelminths show:

- (1) Radial symmetry
- (2) Absence of body cavity
- (3) Presence of pseudocoel
- (4) Bilateral symmetry

Ans: (2)

[2004]

Q407. From the following statements select the wrong one.

- (1) Millepedes have two pairs of appendages in each segment of the body
- (2) Prawn has two pairs of antennae
- (3) Animals belonging to Phylum Porifera are exclusively marine
- (4) Nematocysts are characteristic of the Phylum Cnidaria

Ans: (3)

Q408. Which one of the following characters is not typical of the class Mammalia?

- (1) Ten pairs of cranial nerves
- (2) Thecodont dentition
- (3) Seven cervical vertebrae
- (4) Alveolar lungs

Ans: (1)

[2005]

Q409. In Arthropoda, head and thorax are often fused to form cephalothorax, but in which one of the following classes, is the body divided into head, thorax and abdomen?

- (1) Crustacea
- (2) Insecta
- (3) Arachnida and Crustacea
- (4) Myriapoda

Ans: (2)

[2005]

Q410. The animals with bilateral symmetry in young stage, and radial pentamerous symmetry in the adult stage, belong to the phylum

- (1) Cnidaria
- (2) Annelida
- (3) Echinodermata
- (4) Mollusca

Ans: (3)

[2005]

Q411. Which one of the following is a matching set of a phylum and its three examples?

- (1) Porifera - Spongilla, Euplectella, Pennatula
- (2) Platyhelminthes - Planaria, Schistosoma, Enterobius
- (3) Cnidaria - Bonellia, Physalia, Aurelia
- (4) Mollusca - Loligo, Teredo, Octopus

Ans: (4)

[2006]

Q412. Metameric segmentation is the characteristic of

- (1) Mollusca and Chordata
- (2) Echinodermata and Annelida
- (3) Platyhelminthes and Arthropoda
- (4) Annelida and Arthropoda

Ans: (4)

[2006]

Q413. Biradial symmetry and lack of cnidoblasts are the characteristics of

- (1) Hydra and starfish
- (2) Ctenoplana and Beroe
- (3) Starfish and sea anemone
- (4) Aurelia and Paramecium

Ans: (2)

[2006]

Q414. In which one of the following sets of animals do all the four

give birth to young ones?

- (1) Kangaroo, Hedgehog, Dolphin,, Loris
- (2) Platypus, Penguin, Bat, Hippopotamus
- (3) Lion, Bat, Whale, Ostrich
- (4) Shrew, Bat, Cat, Kiwi

Ans: (1)

[2006]

Q415. Two common characters found in centipede, cockroach and crab are

- (1) Book lungs and antennae
- (2) Jointed legs and chitinous exoskeleton
- (3) Compound eyes and anal cerci
- (4) Green gland and tracheae

Ans: (2)

[2006]

Q416. Which one of the following is the true description about an animal concerned?

- (1) Rat - Left kidney is slightly higher in position than the right one
- (2) Earthworm - The alimentary canal consists of a sequence of pharynx, oesophagus, stomach, gizzard and intestine
- (3) Cockroach - 10 pairs of spiracles (2 pairs on thorax and 8 pairs on abdomen)
- (4) Frog - Body divisible into three regions - head, neck and trunk

Ans: (3)

Q417. Which one of the following is NOT a characteristic of phylum Annelida?

- (1) Pseudocoelom
- (2) Closed circulatory system
- (3) Ventral nerve cord
- (4) Segmentation

Ans: (1)

[2006]

Q418. Which of the following pairs are correctly matched?

Animals - Morphological features \ (i) Crocodile - 4-chambered

heart \ (ii) Sea urchin – Parapodia \ (iii) Obelia - Thecodont \ (iv)

Lemur - Thecodont

- (1) only (i) and (ii)
- (2) (ii), (iii) and (iv)
- (3) (i), (iii) and (iv)
- (4) only (i) and (iv)

Ans: (4)

[2007]

Q419. Annual migration does not occur in the case of

- (1) Arctic tern
- (2) Siberian crane
- (3) Salmon
- (4) Salamander

Ans: (4)

[2008]

Q420. What is common about Trypanosoma, Noctiluca, Monocystis and Giardia?

- (1) These are all parasites
- (2) They have flagella
- (3) These are all unicellular protists
- (4) They produce spores

Ans: (3)

[2008]

Q421. Which one of the following pairs of animals comprises ‘jawless fishes’?

- (1) Guppies and hag fishes
- (2) Mackerals and Rohu
- (3) Lampreys and eels
- (4) Lampreys and hag fishes

Ans: (4)

[2008]

Q422. Which one of the following groups of animals is bilaterally symmetrical and triploblastic?

- (1) Sponges
- (2) Aschelminthes (round worms)

(3) Coelenterates (Cnidarians)

(4) Ctenophores

Ans: (2)

[2008]

Q423. Which one of the following groups of three animals each is correctly matched with their one characteristic morphological feature? Animals Morphological - feature

(1) Scorpion, Spider, - Ventral solid central Cockroach nervous system

(2) Liver fluke, Sea - Bilateral anemone, Sea symmetry cucumber

(3) Cockroach, - Metameric Locust, Taenia segmentation

(4) Centipede, Prawn- Jointed appendages Sea urchin

Ans: (1)

[2008]

Q424. Ascaris is characterized by

(1) presence of true coelom but absence of metamerism

(2) absence of true coelom but presence of metamerism

(3) presence of true coelom and metamerism (metamerisation)

(4) presence of neither true coelom nor metamerism

Ans: (4)

Q425. Which one of the following phyla is correctly matched with its two general characteristics?

(1) Echinodermata - Pentamerous radial symmetry and mostly internal fertilization

(2) Arthropoda - Body divided into head, thorax and abdomen and respiration by tracheae

(3) Mollusca - Normally oviparous and development through a trochophore or veliger larva

(4) Chordata - Notochord at some stage and separate anal and urinary openings to the outside

Ans: (3)

[2009]

Q426. What will you look for to identify the sex of the following?

(1) Female cockroach-Anal cerci

(2) Female Ascaris- Sharply curved posterior end

- (3) Male shark-Claspers borne on pelvic fins
- (4) Male frog- A copulatory pad on the first digit of the hind limb

Ans: (3)

[2010]

Q427. Which one of the following statements about certain given animals is correct?

- (1) Insects are pseudocoelomates
- (2) Round worms (Aschelminthes) are pseudocoelomates
- (3) Flat worms (Platyhelminthes) are coelomates
- (4) Molluscs are acoelomates

Ans: (2)

[2010]

Q428. Which one of the following kinds of animals are triploblastic?

- (1) Ctenophores
- (2) Flat worms
- (3) Corals
- (4) Sponges

Ans: (2)

[2010]

Q429. Which one of the following statements about all the four of Spongilla, Leech, Dolphin and Penguin is correct?

- (1) Spongilla has special collared cells called choanocytes, not found in the remaining three
- (2) Penguin is homeothermic while the remaining three are poikilothermic
- (3) All are bilaterally symmetrical
- (4) Leech is a fresh water form while all others are marine

Ans: (1)

[2010]

Q430. One example of animals having a single opening to the outside that serves both as mouth as well as anus is:

- (1) Ascidia
- (2) Octopus
- (3) Fasciola
- (4) Asterias

Ans: (3)

[2011]

Q431. Frogs differ from humans in possessing:

- (1) nucleated red blood cells
- (2) paired cerebral hemispheres [2011M]
- (3) thyroid as well as parathyroid
- (4) hepatic portal system

Ans: (1)

[2011]

Q432. Which one of the following statements is totally wrong about the occurrence of notochord, while the other three are correct?

- (1) It is absent throughout life in humans from the very beginning
- (2) It is present only in larval tail in Ascidians
- (3) It is present throughout life in Amphioxus
- (4) It is replaced by a vertebral column in adult frog

Ans: (1)

[2011]

Q433. In which one of the following, the genus name, its two characters and its class/phylum are correctly matched? Genus name --Two characters --Class/ phylum

- (1) Pteropus --(i) Skin possesses hair Mammalia (ii) Oviparous--Mammalia
- (2) Ascaris --(i) Body segmented Annelida (ii) Males and females distinct --Annelida
- (3) Aurelia --(i) Cnidoblasts Coelenterata (ii) Organ level of organization--Coelenterata
- (4) Salamandra --(i) A tympanum represents ear Amphibia (ii) Fertilization is external --Amphibia

Ans: (1)

[2011]

Q434. Which one of the following groups of animals is correctly matched with its one characteristic feature without even a single exception?

- (1) Chondrichthyes: possess cartilaginous endoskeleton
- (2) Reptilia: possess 3 - chambered heart with one incompletely divided

ventricle

(3) Mammalia: give birth to young one.

(4) Chordata: possess a mouth provided with an upper and lower jaw

Ans: (1)

[2011M]

Q435. Which one of the following have the highest number of species in nature?

(1) Birds

(2) Fungi

(3) Angiosperms

(4) Insects

Ans: (4)

Q436. Which group of animals belong to the same phylum?

(1) Sponge, Sea anemone, Starfish

(2) Earthworm, Pinworm, Tapeworm

(3) Malarial parasite, Amoeba, Mosquito

(4) Prawn, Scorpion, Locusta

Ans: (4)

[2011M]

Q437. Which one of the following categories of animals, is correctly described with no single exception in it?

(1) All bony fishes have four pairs of gills and an operculum on each side.

(2) All sponges are marine and have collared cells.

(3) All reptiles possess scales, have a three chambered heart and are cold blooded (poikilothermal).

(4) All mammals are viviparous and possess diaphragm for breathing.

Ans: (2)

Q438. Which one of the following pairs of animals are similar to each other pertaining to the feature stated against them?

(1) Ascaris and Ancylostoma - Metameric segmentation

(2) Pteropus and Ornithorhynchus - Viviparity

(3) Sea horse and Flying fish - Cold blooded (poikilothermal)

(4) Garden lizard and Crocodile - Three chambered heart

Ans: (3)

[2012M]

Q439.

Ans: (2)

[2012M]

Q440. The figure shows four animals (A), (B), (C) and (D). Select the correct answer with respect to a common characteristics of two of these animals. (A) (B) (C) (D)

- (1) (A) and (B) have cnidoblasts for selfdefense
- (2) (A) and (D) respire mainly through body wall
- (3) (C) and (D) have a true coelom
- (4) (B) and (C) show radial symmetry

Ans: (3)

[NEET 2013]

Q441. Which one of the following animals is correctly matched with its one characteristics and the taxon? Animal Characteristic Taxon

- (1) Sea Anemone -- Triploblastic -- Cnidaria
- (2) Duckbilled -- Oviparous -- Mammalian platypus
- (3) Silverfish-- Pectoral and Chordata -- Pelvic fins
- (4) Millipede -- Ventral nerve -- Arachnida cord

Ans: (2)

[NEET 2013]

Q442. The characteristics of class Reptilia are:

- (1) Fresh water animals with bony endoskeleton, air-bladder to regulate buoyancy
- (2) Body covered with dry and cornified skin, scales over the body are epidermal, they do not have external ears
- (3) Marine animals with cartilaginous endoskeleton, body covered with placoid scales
- (4) Body covered with moist skin which is devoid of scales, the ear is represented by a tympanum, alimentary canal, urinary and reproductive tracts open into a common cloaca

Ans: (2)

[NEET 2013]

Q443. One of the representatives of phylum Arthropoda is:

- (1) Flying fish
- (2) Silverfish
- (3) Cuttlefish
- (4) Pufferfish

Ans: (2)

[NEET 2013]

Q444. Which of the following are correctly matched with respect to their taxonomic classification?

- (1) Spiny anteater, sea urchin, sea cucumber Echinodermata
- (2) Centipede, millipede, spider, scorpion Insecta
- (3) Flying fish, cuttlefish, silverfish-Pisces
- (4) House fly, butterfly, tse tse fly, silverfish Insecta

Ans: (4)

[NEET Kar. 2013]

Q445. Match the name of the animal (column I), with one characteristics (column II), and the phylum/class (column III) to which it belongs : Column I -- Column II -- Column III

- (1) Adamsia -- radially Porifera -- symmetrical
- (2) Ichthyophis -- terrestrial -- Reptilia
- (3) Petromyzon-- ectoparasite -- Cyclostomata
- (4) Limulus -- body Pisces covered by chitinous -- exoskeleton

Ans: (3)

[NEET Kar. 2013]

Q446. Perisperm is

- (1) peripheral part of endosperm
- (2) remnant of endosperm
- (3) disintegrated secondary nucleus
- (4) persistent nucellus

Ans: (4)

[NEET Kar. 2013]

Q447. Micropyle of seed is involved in the passage of

- (1) water
- (2) male gamete
- (3) gases
- (4) pollen tube

Ans: (1)

[NEET Kar. 2013]

Q448. Fruit of Groundnut is

- (1) Berry
- (2) Legume
- (3) Nut
- (4) Caryopsis

Ans: (2)

[1988]

Q449. Sharks and dogfishes differ from skates and rays by

- (1) Head and trunk are widened considerably
- (2) Their pectoral fins distinctly marked off from cylindrical bodies
- (3) Distinct demarcation between body and tail
- (4) Gill slits are ventrally placed

Ans: (2)

[1988]

Q450. Which one of the following groups of animals reproduces only by sexual means?

- (1) Porifera
- (2) Ctenophora
- (3) Protozoa
- (4) Cnidaria

Ans: (2)

[1988, 89]

Q451. Tegmen develops from

- (1) inner integument
- (2) funiculus
- (3) outer integument
- (4) chalaza

Ans: (1)

[1989, 2002, 04]

Q452. In Groundnut the food/oil reserve is present in

- (1) endosperm
- (2) epicarp
- (3) cotyledons

(4) mesocarp

Ans: (3)

Q453. New Banana plants develop from

(1) stolon

(2) rhizome

(3) seed

(4) sucker

Ans: (4)

[1990]

Q454.

Ans: (3)

[1990]

Q455. Mango juice is got from

(1) endocarp

(2) epicarp

(3) pericarp and thalamus

(4) mesocarp

Ans: (4)

[1990]

Q456. Syngenesious condition is found in

(1) Solanaceae

(2) Asteraceae

(3) Fabaceae

(4) Labiate

Ans: (2)

[1990]

Q457. Vegetative reproduction of Agave occurs through

(1) bulbils

(2) rhizome

(3) sucker

(4) stolon

Ans: (1)

[1990]

Q458. Velamen is found in

(1) leaves of Ficus elastica

- (2) roots of Screwpine
- (3) aerial roots of orchids
- (4) aerial and terrestrial roots of orchids

Ans: (3)

[1991]

Q459. A family delimited by head type of inflorescence is

- (1) Solanaceae
- (2) Fabaceae
- (3) Liliaceae
- (4) Asteraceae

Ans: (4)

[1991]

Q460. Vivipary is characteristic of

- (1) hygrophytes
- (2) mesophytes
- (3) halophytes
- (4) xerophytes

Ans: (3)

[1991]

Q461. Germination of seed within fruit is

- (1) hypogeal
- (2) ovipary
- (3) epigeal
- (4) vivipary

Ans: (4)

[1991]

Q462. Vivipary is

- (1) fruit development without pollination
- (2) seed germination with subterranean cotyledons
- (3) seed germination inside the fruit while attached to the plant
- (4) seed germination with epiterranean cotyledons

Ans: (3)

Q463. Botanical name of Cauliflower is

- (1) Brassica oleracea var. botrytis
- (2) Brassica oleracea var. capitata

- (3) Brassica oleracea var. gemmifera
- (4) Brassica campesteris

Ans: (1)

[1991]

Q464.

Ans: (3)

[1992]

Q465. Fruit of Mangifera indica is

- (1) Capsule
- (2) Berry
- (3) Siliqua
- (4) Drupe

Ans: (4)

[1992]

Q466. Hypanthodium is

- (1) inflorescence
- (2) thalamus
- (3) ovary
- (4) fruit

Ans: (1)

[1991, 92]

Q467. Plant having column of vascular tissues bearing fruits and having a tap root system is

- (1) gymnosperm of dicot
- (2) monocot
- (3) gymnosperm or monocot
- (4) dicot

Ans: (4)

[1993]

Q468. A perennial plant differs from biennial in

- (1) being tree species
- (2) having underground perennating structure
- (3) not dying after seasonal production of flowers
- (4) having asexual reproductive structures

Ans: (3)

[1994]

Q469. Pulses are obtained from

- (1) Poaceae
- (2) Fabaceae
- (3) Solanaceae
- (4) Asteraceae

Ans: (2)

[1994]

Q470. Epipetalous stamens with free filaments and fused anthers occur in

- (1) Liliaceae
- (2) Asteraceae
- (3) Poaceae
- (4) Solanaceae

Ans: (2)

[1994]

Q471. Which one of the following statements is correct with respect to the plant species and its use?

- (1) Ricinus communis – important edible cereal
- (2) Oryza sativa – rich source of protein
- (3) Hibiscus esculentus – flowers eaten throughout the country.
- (4) Manihot utilissima – root tubers eaten especially in Kerala

Ans: (4)

[1995]

Q472. Which part of the coconut produces coir?

- (1) Epicarp
- (2) Seed coat
- (3) Pericarp.
- (4) Mesocarp

Ans: (4)

[1995, 01]

Q473. Which one of the following is a true fruit?

- (1) Cashew nut
- (2) Apple
- (3) Coconut

(4) Pear
Ans: (3)

Q474. Tetrastamens are found in family

- (1) Cruciferae
 - (2) Malvaceae
 - (3) Liliaceae
 - (4) Solanaceae
- Ans: (1)

Q475. Buttress roots are found in

- (1) Terminalia
 - (2) sorghum
 - (3) Pandanus
 - (4) banyan
- Ans: (1)

[1997]

Q476. The embryo in sunflower has

- (1) many cotyledons
 - (2) one cotyledon
 - (3) no cotyledon
 - (4) two cotyledons
- Ans: (4)

[1997]

Q477. Aril represents the edible part of

- (1) mango
 - (2) banana
 - (3) apple
 - (4) litchi
- Ans: (4)

Q478. Which plant will lose its economic value if its fruits are produced by induced parthenocarpy?

- (1) banana
- (2) brabe
- (3) orange
- (4) pomegranate

Ans: (4)

[1997]

Q479. Heterospory and seed habit are often discussed in relation to a structure called

- (1) petiole
- (2) spathe
- (3) ligule
- (4) bract

Ans: (3)

[1997, 99, 2005, 06]

Q480. Most plants are green in colour because

- (1) chlorophyll is least effective in absorbing green light
- (2) the atmosphere filters out all the colours of the visible light spectrum except green
- (3) green light allows maximum photosynthesis
- (4) green light is the most effective wavelength region of the visible spectrum in sunlight for photosynthesis

Ans: (1)

[1998]

Q481. Match the following and indicate which is correct

- (1) Brassicaceae – Wheat
- (2) Cucurbitaceae – Orange
- (3) Leguminosae – Sunflower
- (4) Malvaceae – Cotton

Ans: (4)

[1998]

Q482. The type of placentation in which ovary is syncarpous, unilocular and ovules on sutures is called

- (1) marginal placentation
- (2) apical placentation
- (3) superficial placentation
- (4) parietal placentation

Ans: (4)

[1999]

Q483. The plant, which bears clinging roots, is

- (1) screw pine
- (2) trapa
- (3) podostemon
- (4) orchid

Ans: (4)

Q484. Angiosperm to which the largest flowers belong is?

- (1) total root parasite
- (2) total stem parasite
- (3) partial root parasite
- (4) partial stem parasite

Ans: (1)

[1999]

Q485. Floral features are chiefly used in Angiosperms identification because

- (1) reproductive parts are more stable and conservative than vegetative parts
- (2) flowers are of various colours
- (3) flowers are nice to work with
- (4) flowers can be safely pressed

Ans: (1)

Q486. Which is correct pair for edible part?

- (1) Guava - mesocarp
- (2) Tomato - Thalamus
- (3) Date palm - Mesocarp
- (4) Maize - Cotyledons

Ans: (3)

[2001]

Q487. Bicarpellary gynoecium and oblique ovary occurs in

- (1) Pisum
- (2) Mustard
- (3) Brinjal
- (4) Banana

Ans: (3)

[2001]

Q488. Edible part of banana is

- (1) endocarp and less developed mesocarp
- (2) epicarp
- (3) epicarp and mesocarp
- (4) mesocarp and less developed endocarp

Ans: (4)

[2001]

Q489. Roots of which plant contains an oxidising agent?

- (1) Mustard
- (2) Carrot
- (3) Radish
- (4) Soyabean

Ans: (4)

[2001]

Q490. What is eye of potato?

- (1) Adventitious bud
- (2) Axillary bud
- (3) Apical bud
- (4) Accessory bud

Ans: (1)

[2001]

Q491. In a cereal grain the single cotyledon of embryo is represented by

- (1) coleoptile
- (2) scutellum
- (3) coleorhiza
- (4) prophyll

Ans: (2)

Q492. An ovule which becomes curved so that the nucellus and embryo sac lie at right angles to the funicle is

- (1) Anatropous
- (2) Hemitropous
- (3) Orthotropous
- (4) Campylotropous

Ans: (2)

[2003]

Q493. The aleurone layer in maize grain is specially rich in

- (1) starch
- (2) auxins
- (3) lipids
- (4) proteins

Ans: (4)

[2003]

Q494. Juicy hair-like structures observed in the lemon fruit develop from

- (1) mesocarp
- (2) mesocarp and endocarp
- (3) endocarp
- (4) exocarp

Ans: (3)

[2004]

Q495. Which of the following is a correct pair?

- (1) Opuntia – predator
- (2) Cuscuta – parasite
- (3) Capsella – hydrophyte
- (4) Dischidia – insectivorous

Ans: (2)

[2006]

Q496. Which of the following is a flowering plant with nodules containing filamentous nitrogen-fixing micro-organism

- (1) Cicer arietinum
- (2) Crotalaria juncea
- (3) Casuarina equisetifolia
- (4) Cycas revoluta

Ans: (3)

[2006]

Q497. Pentamerous, actinomorphic flowers, bicarpellate ovary with oblique septa and fruit a capsule of berry, are characteristic features of

- (1) Liliaceae
- (2) Brassicaceae

- (3) Asteraceae
 - (4) Solanaceae
- Ans: (4)

[2000, 06]

Q498. Pineapple (anas) fruit develops from

- (1) a multilocular monocarpellary flower
- (2) a multipistillate syncarpous flower
- (3) a unilocular polycarpellary flower
- (4) a cluster of compactly borne flowers on a common axis

Ans: (4)

[2006]

Q499. Long filamentous threads protruding at the end of the young cob of maize are

- (1) hairs
- (2) styles
- (3) anthers
- (4) ovaries

Ans: (2)

[2006]

Q500. What type of placentation is seen in sweet pea?

- (1) Marginal
- (2) Axile
- (3) Basal
- (4) Free central

Ans: (1)

[2007]

Q501. Keel is characteristic of the flowers of:

- (1) Calotropis
- (2) Gulmohur
- (3) Bean
- (4) Cassia

Ans: (3)

Q502. In unilocular ovary with a single ovule the placentation is:

- (1) Free Central
- (2) Marginal

(3) Axile

(4) Basal

Ans: (4)

Q503. An example of axile placentation is:

(1) Marigold

(2) Dianthus

(3) Argemone

(4) Lemon

Ans: (4)

[2009]

Q504.

Ans: (1)

[2010]

Q505. Replum is present in the ovary of flower of

(1) Sun flower

(2) Lemon

(3) Pea

(4) Mustard

Ans: (4)

Q506.

Ans: (4)

Q507. What would be the number of chromosomes of the aleurone cells of a plant with 42 chromosomes in its root tip cells?

(1) 84

(2) 42

(3) 21

(4) 63

Ans: (4)

[2010]

Q508. Which one of the following statements is correct?

(1) Placentation in primose is basal

(2) In tomato, fruit is a capsule

(3) Flower of tulip is a modified shoot

(4) Seeds of orchids have oil-rich endosperm

Ans: (3)

[2011]

Q509. The technical term used for the androecium in a flower of China rose (*Hibiscus rosa sinensis*) is:

- (1) Polyandrous
- (2) Monadelphous
- (3) Polyadelphous
- (4) Diadelphous

Ans: (2)

Q510. Ovary is half-inferior in the flowers of:

- (1) brinjal
- (2) guava
- (3) cucumber
- (4) plum

Ans: (4)

Q511. Sweet potato is homologous to

- (1) Ginger
- (2) Potato
- (3) Turnip
- (4) Colocasia

Ans: (3)

[2011]

Q512. Whorled, simple leaves with reticulate venation are present in

- (1) China rose
- (2) Calotropis
- (3) Alstonia
- (4) Neem

Ans: (3)

Q513.

Ans: (4)

Q514. The ovary is half inferior in flowers of

- (1) cotton
- (2) peach
- (3) guava
- (4) cucumber

Ans: (2)

[2011M]

Q515. Flowers are zygomorphic in:

- (1) ioruito
- (2) mustard
- (3) Datura
- (4) gulmohur

Ans: (4)

[2011M]

Q516. How many plants in the list given below have composite fruits that develop from an inflorescence Walnut, poppy, radish, fig, pineapple, apple, tomato, mulberry

- (1) Two
- (2) Four
- (3) Three
- (4) Five

Ans: (3)

[2012]

Q517. The gynoecium consists of many free pistils in flowers of

- (1) Papaver (4) Michelia
- (2) Aloe (4) Tomato

Ans: (3)

[2012]

Q518. Phyllode is present in:

- (1) Australian Acacia
- (2) Asparagus
- (3) Opuntia
- (4) Euphorbia

Ans: (1)

[2012]

Q519. Cymose inflorescence is present in:

- (1) Trifolium
- (2) Solanum
- (3) Brassica
- (4) Sesbania

Ans: (2)

[2012]

Q520. Placentation in tomato and lemon is

- (1) Marginal
- (2) Parietal
- (3) Axile
- (4) Free central

Ans: (3)

[2012]

Q521. In china rose the flowers are:

- (1) Zygomorphic, epigynous with twisted aestivation
- (2) Actinomorphic, epigynous with valvate aestivation
- (3) Actinomorphic, hypogynous with twisted aestivation
- (4) Zygomorphic, hypogynous with imbricate aestivation

Ans: (3)

[2012]

Q522. How many plants in the list given below have marginal placentation? Mustard, Gram, Tulip, Asparagus, Arhar, Sun hemp, Chilli, Colchicine, Onion, Moong, Pea, Tobacco, Lupin

- (1) Six
- (2) Four
- (3) Three
- (4) Five

Ans: (1)

[2012]

Q523. Which one of the following organisms is correctly matched with its three characteristics?

- (1) Onion: Bulb, Imbricate aestivation, Axile placentation
- (2) Pea: C3 pathway, Endospermic seed, Vexillary aestivation
- (3) Maize: C3 pathway, Closed vascular bundles, Scutellum

(4) Tomato: Twisted aestivation, Axile placentation, Berry

Ans: (1)

[2012M]

Q524. Vexillary aestivation is characteristic of the family

- (1) Solanaceae
- (2) Fabaceae
- (3) Brassicaceae
- (4) Asteraceae

Ans: (2)

[2012M]

Q525. The coconut water and the edible part of coconut are equivalent to:

- (1) Mesocarp
- (2) Endosperm
- (3) Embryo
- (4) Endocarp

Ans: (2)

[NEET 2013]

Q526. Inflorescence is racemose in

- (1) Tulip
- (2) Soyabean
- (3) Aloe
- (4) Brinjal

Ans: (2)

[NEET 2013]

Q527. In a cymose inflorescence the main axis

- (1) Bears a solitary flower
- (2) Terminates in a flower
- (3) Has unlimited growth but lateral branches end in flowers
- (4) Has unlimited growth

Ans: (2)

[NEET Kar. 2013]

Q528. How many plants among China rose, Ocimum, sunflower, mustard, Alstonia, guava, Calotropis and Nerium (Oleander) have opposite phyllotaxy?

- (1) Four
- (2) Two
- (3) Five
- (4) Three

Ans: (4)

[NEET Kar. 2013]

Q529. Among flowers of Calotropis, tulip, Sesbania, Asparagus, Colchicine, Sweet pea, Petunia, Indigofera, Mustard, Soyabean, Tobacco and groundnut how many plants have corolla with valvate aestivation?

- (1) Seven
- (2) Five
- (3) Eight
- (4) Six

Ans: (1)

[NEET Kar. 2013]

Q530. Among bitter gourd, mustard, brinjal, pumpkin, china rose, lupin, cucumber, sunhemp, gram, guava, bean, chilli, plum, petunia, tomato, rose, withania, potato, onion, aloe and tulip how many plants have hypogynous flower ?

- (1) Eighteen
- (2) Ten
- (3) Six
- (4) Fifteen

Ans: (4)

[NEET Kar. 2013]

Q531. Pith and cortex do not differentiate in

- (1) monocot root
- (2) monocot stem
- (3) dicot root
- (4) dicot stem

Ans: (2)

Q532. Cork is formed from

- (1) phloem

- (2) cork cambium (phellogen)
- (3) xylem
- (4) vascular cambium

Ans: (2)

Q533. Which one yields fibres?

- (1) Teak
- (2) Coconut
- (3) Sisso
- (4) Oak

Ans: (2)

Q534. Which meristem helps in increasing girth?

- (1) Primary meristem
- (2) Lateral meristem
- (3) Apical meristem
- (4) Intercalary meristem

Ans: (2)

[1988]

Q535. Tunica corpus theory is connected with

- (1) shoot apex
- (2) root apex
- (3) secondary growth
- (4) root cap

Ans: (1)

[1988]

Q536. Cork cambium and vascular cambium are

- (1) lateral meristems
- (2) parts of secondary xylem and phloem
- (3) apical meristems
- (4) parts of pericycle

Ans: (1)

[1988]

Q537. Which is the correct fact about diffuse or ring porous wood?

- (1) Ring porous wood carries more water when need is higher

[1989]

- (2) Ring porous wood, carries more water for short period
- (3) Diffuse porous wood is less specialised but conducts water rapidly throughout
- (4) Diffuse porous wood carries more water

Ans: (1)

[1989]

Q538. Sieve tubes are suited for translocation of food because they possess

- (1) broader lumen and perforated cross walls
- (2) bordered pits
- (3) no protoplasm
- (4) no ends walls

Ans: (1)

[1989]

Q539. Death of protoplasm is a pre-requisite for a vital function like

- (1) absorption of water
- (2) transport of sap
- (3) gaseous exchange
- (4) transport of food

Ans: (2)

[1989]

Q540. Organisation of stem apex into corpus and tunica is determined mainly by

- (1) rate of cell growth
- (2) planes of cell division
- (3) rate of shoot tip growth
- (4) regions of meristematic activity

Ans: (2)

[1990, 95]

Q541. For union between stock and scion in grafting which one is the first to occur?

- (1) Differentiation of new vascular tissues
- (2) Formation of callus
- (3) Regeneration of cortex and epidermis

(4) Production of plasmodesmata

Ans: (2)

[1990]

Q542. Pericycle of roots produces

- (1) vascular bundles
- (2) mechanical support
- (3) adventitious buds
- (4) lateral roots

Ans: (4)

[1990]

Q543. Collenchyma occurs in

- (1) climbing stems
- (2) herbaceous climbers
- (3) water plants
- (4) woody climbers

Ans: (1)

[1990]

Q544. Collenchyma occurs in the stem and petioles of

- (1) Dicot herbs
- (2) Xerophytes
- (3) Hydrophytes
- (4) Monocots

Ans: (1)

[1990]

Q545. Monocot leaves possess

- (1) apical meristem
- (2) intercalary meristem
- (3) mass meristem
- (4) lateral meristem

Ans: (2)

[1990]

Q546. An organised and differentiated cellular structure having cytoplasm but no nucleus is

- (1) Sieve tubes
- (2) Vessels

- (3) Tracheids
 - (4) Xylem parenchyma
- Ans: (1)

[1990]

Q547. Angular collenchyma occurs in

- (1) Althaea
- (2) Cucurbita
- (3) Salvia
- (4) Helianthus

Ans: (2)

[1990, 92]

Q548. Where do the casparian bands occur?

- (1) Pericycle
- (2) Epidermis
- (3) Phloem
- (4) Endodermis

Ans: (4)

[1990, 94]

Q549. Vascular cambium produces

- (1) primary xylem and secondary phloem
- (2) primary xylem and primary phloem
- (3) secondary xylem and primary phloem
- (4) secondary xylem and secondary phloem

Ans: (4)

[1991]

Q550. What is true about a monocot leaf

- (1) Mesophyll not differentiated into palisade and spongy tissues
- (2) Reticulate venation
- (3) Well differentiated mesophyll
- (4) Absence of bulliform cells from epidermis

Ans: (1)

[1991]

Q551. Abnormal/anomalous secondary growth occurs in

- (1) Wheat
- (2) Dracaena

- (3) Sunflower
 - (4) Ginger
- Ans: (2)

[1991]

Q552. Bordered pits are found in

- (1) Companion cells
 - (2) Sieve cells
 - (3) Sieve tube wall
 - (4) Vessel wall
- Ans: (4)

[1991]

Q553. A bicollateral vascular bundle is characterised by

- (1) Longitudinal splitting of vascular bundle
 - (2) Phloem being sandwiched between xylem
 - (3) Xylem being sandwiched between phloem
 - (4) Transverse splitting of vascular bundle
- Ans: (3)

[1992]

Q554. Commercial cork is obtained from

- (1) Quercus/Oak
 - (2) Berberis/Barberry
 - (3) Betula/Birch
 - (4) Salix/Willow
- Ans: (1)

[1993]

Q555. Which is correct about transport or conduction of substances?

- (1) Inorganic food moves upwardly and downwardly through xylem
 - (2) Organic food moves up through phloem
 - (3) Organic food moves upwardly and downwardly through phloem
 - (4) Organic food moves up through phloem
- Ans: (3)

[1993]

Q556. As the secondary growth takes place (proceeds) in a tree, thickness of

- (1) both increase
- (2) heart wood increases
- (3) both remain the same
- (4) sap-wood increases

Ans: (2)

Q557. Procambium forms

- (1) only cork cambium
- (2) only primary vascular bundles
- (3) primary vascular bundles and vascular cambium
- (4) only vascular cambium

Ans: (2)

[1993]

Q558. Periderm is produced by

- (1) Phellogen
- (2) Vascular cambium
- (3) Intrafascicular cambium
- (4) Fascicular cambium

Ans: (1)

[1993]

Q559. A narrow layer of thin walled cells found between phloem/bark and wood of a dicot is

- (1) Endodermis
- (2) Cork cambium
- (3) Pericycle
- (4) Vascular cambium

Ans: (4)

[1994]

Q560. Which exposed wood will decay faster

- (1) Wood with lot of fibres
- (2) Sapwood
- (3) Heartwood
- (4) Softwood

Ans: (2)

[1994]

Q561. Transition of radial vascular bundle in root to conjoint

vascular bundle in stem occurs in which zone?

- (1) Meristem
- (2) Epicotyl
- (3) At base of stem
- (4) Hypocotyl

Ans: (4)

[1996]

Q562. Which of the following meristems is responsible for extrastelar secondary growth in dicotyledonous stem?

- (1) Intercalary meristem
- (2) Intrafascicular cambium
- (3) Phellogen
- (4) Interfascicular cambium

Ans: (3)

[1997]

Q563. A leaf primordium grows into the adult leaf lamina by means of

- (1) marginal meristems
- (2) apical meristem
- (3) at first by apical meristem and later largely by marginal meristems.
- (4) lateral meristem

Ans: (3)

[1998]

Q564. At maturity which of the following is enucleate?

- (1) Palisade cell
- (2) Sieve cell
- (3) Cortical cell
- (4) Companion cell

Ans: (2)

[1998]

Q565. What is not true about sclereids?

- (1) These are commonly found in the shells of nuts and in the pulp of guava, pear, etc
- (2) These are parenchyma cells with thickened lignified walls
- (3) These are also called the stone cells

(4) These are elongated and flexible with tapered ends

Ans: (2)

[1999]

Q566. Four radial vascular bundles are found in

(1) dicot stem

(2) dicot root

(3) monocot stem

(4) monocot root

Ans: (2)

[2000]

Q567. Vessels are found in

(1) all angiosperms, all gymnosperms and some pteridophyta

(2) all angiosperms and some gymnosperms

(3) all pteridophyta

(4) most of angiosperms and few gymnosperms

Ans: (4)

[2001]

Q568. Main function of lenticel is

(1) gaseous exchange

(2) transpiration

(3) bleeding

(4) guttation

Ans: (2)

[2002]

Q569. Loading of phloem is related to

(1) separation of phloem parenchyma

(2) increases of sugar in phloem

(3) strengthening of phloem fibre

(4) elongation of phloem cell

Ans: (2)

[2002]

Q570. What happens during vascularization in plants?

(1) Differentiation of procambium, xylem and phloem is simultaneous

(2) Differentiation of procambium is immediately followed by the development of secondary xylem and phloem

(3) Differentiation of procambium followed by the development of primary phloem and then by primary xylem

(4) Differentiation of procambium followed by the development of xylem and phloem

Ans: (4)

[2002]

Q571. Chlorenchyma is known to develop in the

(1) mycelium of a green mould such as *Aspergillus*

(2) pollen tube of *Pinus*

(3) spore capsule of a moss

(4) cytoplasm of *Chlorella*

Ans: (3)

[2002]

Q572. The apical meristem of the root is present

(1) only in tap roots

(2) in all the roots

(3) only in adventitious roots

(4) only in radicals

Ans: (2)

[2002]

Q573. The cells of the quiescent centre are characterised by

(1) having light cytoplasm and small nuclei

(2) dividing regularly to add to tunica

(3) dividing regularly to add to the corpus

(4) having dense cytoplasm and prominent nuclei

Ans: (1)

[2003]

Q574. Which of the following statements is true?

(1) Vessels are unicellular with wide lumen

(2) Vessels are multicellular with narrow lumen

(3) Tracheids are unicellular with wide lumen

(4) Tracheids are multicellular with narrow lumen

Ans: (3)

Q575. Axillary bud and terminal bud are derived from the activity of

- (1) apical meristem
- (2) lateral meristem
- (3) parenchyma
- (4) intercalary meristem

Ans: (1)

Q576. A common structural feature of vessel elements and sieve tube elements are

- (1) enucleate condition
- (2) pores on lateral walls
- (3) thick secondary walls
- (4) presence of p-protein

Ans: (1)

[2004]

Q577. In a woody dicotyledonous tree, which of the following parts will mainly consist of primary tissues?

- (1) Flowers, fruits and leaves
- (2) All parts
- (3) Shoot tips and root tips
- (4) Stem and root

Ans: (3)

[2004]

Q578. Ectophloic siphonostele is found in

- (1) Adiantum and Cucurbitaceae
- (2) Osmunda and Equisetum
- (3) Dicksonia and Maidenhair fern
- (4) Marsilea and Botrychium

Ans: (2)

Q579. The most abundant element present in the plants is

- (1) Manganese
- (2) Carbon
- (3) Iron
- (4) Nitrogen

Ans: (2)

[2005]

Q580. In a longitudinal section of a root, starting from the tip upward, the four zones occur in the following order:

- (1) Cell division, cell enlargement, cell maturation, root cap
- (2) Root cap, cell division, cell enlargement, cell maturation
- (3) Cell division, cell maturation, cell enlargement, root cap
- (4) Root cap, cell division, cell maturation, cell enlargement

Ans: (2)

[2006]

Q581. Which one of the following is resistant to enzyme action?

- (1) Pollen exine
- (2) Cork
- (3) Leaf cuticle
- (4) Wood fibre

Ans: (1)

[2007]

Q582. The length of different internodes in a culm of sugarcane is variable because of

- (1) size of leaf lamina at the node below each internode
- (2) shoot apical meristem
- (3) intercalary meristem
- (4) position of axillary buds

Ans: (3)

[2007]

Q583. Vascular tissues in flowering plants develop from:

- (1) periblem
- (2) phellogen
- (3) dermatogen
- (4) plerome

Ans: (4)

[2008]

Q584. Passage cells are thin walled cells found in

- (1) central region of style through which the pollen tube grows towards the ovary
- (2) phloem elements that serve as entry points for substance for transport of other plant parts

(3) endodermis of roots facilitating rapid transport of water from cortex to pericycle.

(4) testa of seeds to enable emergence of growing embryonic axis during seed germination

Ans: (3)

[2008]

Q585. For a critical study of secondary growth in plants. Which one of the following pairs is suitable?

(1) wheat and maiden hair fern

(2) teak and pine

(3) sugarcane and sunflower.

(4) deodar and fern

Ans: (2)

[2008]

Q586. Reduction in vascular tissue, mechanical tissue and cuticle is characteristic of:

(1) hydrophytes

(2) mesophytes

(3) xerophytes

(4) epiphytes

Ans: (1)

[2009]

Q587. In barley stem vascular bundles are:

(1) closed and radial

(2) closed and scattered

(3) open and scattered

(4) open and in a ring

Ans: (2)

[2009]

Q588. Palisade parenchyma is absent in leaves of:

(1) gram

(2) mustard

(3) sorghum

(4) soybean

Ans: (3)

Q589. The annular and spirally thickened conducting elements generally develop in the protoxylem when the root or stem is:

- (1) differentiating
- (2) elongating
- (3) maturing
- (4) widening

Ans: (3)

[2009]

Q590. Anatomically fairly old dicotyledonous root is distinguished from the dicotyledonous stem by

- (1) position of protoxylem
- (2) absence of secondary phloem
- (3) absence of secondary xylem
- (4) presence of cortex

Ans: (1)

[2009]

Q591. In land plants, the guard cells differ from other epidermal cells in having:

- (1) endoplasmic reticulum
- (2) cytoskeleton
- (3) chloroplasts
- (4) mitochondria

Ans: (3)

[2010]

Q592. Ground tissue includes

- (1) epidermis and cortex
- (2) all tissues external to endodermis
- (3) all tissues internal to endodermis
- (4) all tissues except epidermis and vascular bundles

Ans: (4)

[2010]

Q593. Heartwood differs from sapwood in:

- (1) having dead and non -conducting elements
- (2) presence of rays and fibres
- (3) being susceptible to pests and pathogens

(4) absence of vessels and parenchyma

Ans: (1)

[2010]

Q594. Which one of the following is not a lateral meristem?

- (1) Phellogen
- (2) Intrafascicular cambium
- (3) Intercalary meristem
- (4) Interfascicular cambium

Ans: (3)

[2011]

Q595. The chief water conducting elements of xylem in gymnosperms are:

- (1) transfusion tissue
- (2) vessels
- (3) tracheids
- (4) fibres

Ans: (3)

[2011]

Q596. In Kranz anatomy, the bundle sheath cells have

- (1) thin walls, no intercellular spaces and several chloroplasts
- (2) thin walls, many intercellular spaces and no chloroplasts
- (3) thick walls, many intercellular spaces and few chloroplasts
- (4) thick walls, no intercellular spaces and large number of chloroplasts

Ans: (4)

[2011]

Q597. Some vascular bundles are described as open because these

- (1) possess conjunctive tissue between xylem and phloem
- (2) are surrounded by pericycle but not endodermis
- (3) are not surrounded by pericycle
- (4) are capable of producing secondary xylem and phloem

Ans: (4)

[2011]

Q598. Function of companion cells is

- (1) loading of sucrose into sieve elements by passive transport

- (2) providing energy to sieve elements for active transport
- (3) loading of sucrose into sieve elements
- (4) providing water to phloem

Ans: (3)

[2011M]

Q599. Which one of the following is wrongly matched?

- (1) Root - Exarch protoxylem
- (2) Root pressure - Guttation
- (3) Cassia - Imbricate aestivation
- (4) Puccinia - Smut

Ans: (4)

[2011M]

Q600. The cork cambium, cork and secondary cortex are collectively called:

- (1) periderm
- (2) phelloderm'
- (3) phellem
- (4) phellogen

Ans: (1)

[2011M]

Q601. Gymnosperms are also called soft wood spermatophytes because they lack:

- (1) Thick-walled tracheids
- (2) Cambium
- (3) Xylem fibres
- (4) Phloem fibres

Ans: (3)

[2012]

Q602. Water containing cavities in vascular bundles are found in:

- (1) Cycas
- (2) Sunflower
- (3) Pinus
- (4) Maize

Ans: (4)

[2012]

Q603. Closed vascular bundles lack

- (1) Cambium
- (2) Ground tissue
- (3) Pith
- (4) conjunctive tissue

Ans: (1)

[2012]

Q604. Companion cells are closely associated with:

- (1) Trichomes
- (2) Sieve elements
- (3) Guard cells
- (4) Vessel elements

Ans: (2)

[2012]

Q605. The common bottle cork is a product of:

- (1) Xylem
- (2) Dermatogen
- (3) Vascular Cambium
- (4) Phellogen

Ans: (4)

[2012]

Q606. Which of the following statements is not true for stomatal apparatus?

- (1) Guard cells are always surrounded by subsidiary cells
- (2) Inner walls of guard cells are thick
- (3) Stomata are involved in gaseous exchange
- (4) Guard cells invariably possess chloroplasts and mitochondria

Ans: (1)

[2012M]

Q607. Interfascicular cambium develops from the cells of:

- (1) Pericycle
- (2) Xylem parenchyma
- (3) Medullary rays
- (4) Endodermis

Ans: (3)

[NEET 2013]

Q608. Lenticels are involved in:

- (1) Photosynthesis
- (2) Gaseous exchange
- (3) Transpiration
- (4) Food transport

Ans: (2)

[NEET 2013]

Q609. Age of a tree can be estimated by:

- (1) diameter of its heartwood
- (2) biomass
- (3) its height and girth
- (4) number of annual rings

Ans: (4)

[NEET 2013]

Q610. As compared to a dicot root, a monocot root has

- (1) inconspicuous annual rings.
- (2) many xylem bundles.
- (3) more abundant secondary xylem.
- (4) relatively thicker periderm.

Ans: (2)

[NEET Kar. 2013]

Q611. Haversian canals occur in

- (1) Scapula
- (2) Humerus
- (3) Clavicle
- (4) Pubis

Ans: (2)

[NEET Kar. 2013]

Q612. Histamine secreting cells are found in

- (1) muscular tissue
- (2) connective tissues
- (3) nervous tissue
- (4) lungs

Ans: (2)

Q613. Mineral found in red pigment of vertebrate blood is

- (1) calcium
- (2) magnesium
- (3) copper
- (4) iron

Ans: (4)

[1989]

Q614. Lymph differs from blood in possessing

- (1) more RBC and few WBC
- (2) only WBC
- (3) more WBC and few RBC
- (4) more RBC and WBC

Ans: (2)

[1989]

Q615. Meristematic tissue responsible for increase in girth of tree trunk is

- (1) Lateral meristem
- (2) Apical meristem
- (3) Phellogen
- (4) Intercalary meristem

Ans: (1)

[1989]

Q616. Vitamin K is required for

- (1) conversion of prothrombin to thrombin
- (2) formation of thromboplastin
- (3) synthesis of prothrombin
- (4) conversion of fibrinogen to fibrin

Ans: (3)

[1990]

Q617. Formation of cartilage bones involves

- (1) deposition of bony matter by osteoclasts only
- (2) deposition of bony matter by osteoblasts and resorption chondroblasts
- (3) deposition of bony matter by osteoblasts only
- (4) deposition of bony matter by osteoclasts and resorption by chondroblasts

Ans: (2)

[1992]

Q618. Afferent nerve fibre carries impulses from

- (1) central nervous system to muscles
- (2) effector to central nervous system
- (3) central nervous system to receptors
- (4) receptor to central nervous system

Ans: (4)

[1992]

Q619. Component of blood responsible for producing antibodies is

- (1) Erythrocytes
- (2) Thrombocytes
- (3) Lymphocytes
- (4) Monocytes

Ans: (3)

[1993]

Q620. Characteristics of smooth muscle fibres are

- (1) cylindrical, unbranched, unstriated, multinucleate and involuntary
- (2) spindle-shaped, unbranched, unstriated, uninucleate and involuntary
- (3) cylindrical, unbranched, striated, multinucleate and voluntary
- (4) spindle shaped, unbranched, unstriated, multinucleate and involuntary

Ans: (2)

[1993]

Q621. Protein present in the matrix of cartilage is known as

- (1) cartilagin
- (2) chondrin
- (3) ossein
- (4) casein

Ans: (2)

[1993]

Q622. Stratum germinativum is an example of which kind of epithelium?

- (1) Columnar
- (2) Cuboidal
- (3) Squamous

(4) Ciliated

Ans: (1)

[1993]

Q623. Epithelial tissue with thin flat cells appearing like packed tiles occurs on

(1) inner lining of fallopian tubes

(2) inner lining of cheek

(3) inner lining of ovary

(4) inner lining of stomach

Ans: (2)

[1994]

Q624. Blood capillary consists of

(1) endothelium and thin coat of muscle fibres

(2) endothelium only

(3) endothelium and thin coat of connective tissue plus muscle fibres

(4) endothelium and thin coat of connective tissue

Ans: (2)

[1997]

Q625. The layer of actively dividing cells of skin is termed as

(1) stratum malpighii/ stratum germinativum

(2) stratum compactum

(3) stratum lucidum

(4) stratum corneum

Ans: (1)

Q626. The polysaccharide present in the matrix of cartilage is known as

(1) chondroitin

(2) cartilagin

(3) casein

(4) ossein

Ans: (1)

[1997]

Q627. The active molecule that helps initiate the inflammatory response when mast cells degranulate is

- (1) heparin
- (2) perforin
- (3) insulin
- (4) histamine

Ans: (4)

[1998]

Q628. Which of the following is not exclusively supplied with involuntary muscles?

- (1) Muscles of iris
- (2) Muscular coats of blood vessels
- (3) Muscles of urethra
- (4) Muscles of the ducts of glands

Ans: (3)

[1998]

Q629. The functional unit of contractile system in striated muscle is

- (1) Z-band
- (2) myofibril
- (3) cross bridges
- (4) sarcomere

Ans: (4)

[1999]

Q630. Basement membrane is made up of

- (1) both epidermal and endodermal cells
- (2) epidermal cells only
- (3) no cell at all, but is a product of epithelial cells
- (4) endodermal cells only

Ans: (3)

[2000]

Q631. Which cartilage is present at the end of long bones?

- (1) Elastic cartilage
- (2) Calcified cartilage
- (3) Fibrous cartilage
- (4) Hyaline cartilage

Ans: (4)

[2000]

Q632. During an injury nasal septum gets damaged and for its recovery which cartilage is preferred?

- (1) Calcified cartilage
- (2) Hyaline cartilage
- (3) Fibrous cartilage
- (4) Elastic cartilage

Ans: (2)

[2000]

Q633. Which cells do not form layer and remain structurally separate?

- (1) Nerve cells
- (2) Epithelial cells
- (3) Gland cells
- (4) Muscle cells

Ans: (1)

[2001]

Q634. A piece of bone such as femur of frog if kept in dilute HCl for about a week will

- (1) turn flexible
- (2) assume black colour
- (3) crack into pieces
- (4) shrink in size

Ans: (1)

[2001]

Q635. Simple epithelium is a tissue in which the cells are

- (1) continuously dividing to provide form to an organ
- (2) hardened and provide support to the organs
- (3) loosely connected to one another to form an irregular organ
- (4) cemented directly to one another to form a single layer

Ans: (4)

[2002]

Q636. Areolar connective tissue joins

- (1) bones with bones
- (2) integument with muscles

(3) fat body with muscles

(4) bones with muscles

Ans: (2)

Q637. Which of the following substances, if introduced into the blood stream, would cause coagulation of blood at the site of its introduction?

(1) Thromboplastin

(2) Prothrombin

(3) Heparin

(4) Fibrinogen

Ans: (1)

Q638. ATPase enzyme needed for muscle contraction is located in

(1) myosin

(2) actinin

(3) actin

(4) troponin

Ans: (1)

[2004]

Q639. Mast cells of connective tissue contain

(1) heparin and calcitonin

(2) vasopressin and relaxin

(3) serotonin and melanin

(4) heparin and histamine

Ans: (4)

[2005]

Q640. Which one of the following contains the largest quantity of extracellular material?

(1) Areolar tissue

(2) Myelinated nerve fibres

(3) Stratified epithelium

(4) Striated muscle

Ans: (1)

[2006]

Q641. Which one of the following is correct pairing of a body part and the kind of muscle tissue that moves it?

- (1) Iris–Involuntary smooth muscle
- (2) Biceps of upper arm–Smooth muscle fibres
- (3) Heart wall–Involuntary unstriated muscle
- (4) Abdominal wall–Smooth muscle

Ans: (4)

[2006]

Q642. Earthworms have no skeleton but during burrowing, the anterior end becomes turgid and acts as a hydraulic skeleton. It is due to

- (1) gut peristalsis
- (2) coelomic fluid
- (3) setae
- (4) blood

Ans: (2)

[2006]

Q643. In which one of the following preparations are you likely to come across cell junctions most frequently?

- (1) Hyaline cartilage
- (2) Thrombocytes
- (3) Ciliated epithelium.
- (4) Tendon

Ans: (3)

[2007]

Q644. Bowman's glands are found in

- (1) juxtamedullary nephrons
- (2) external auditory canal
- (3) olfactory epithelium
- (4) cortical nephrons only

Ans: (3)

[2008]

Q645. Mast cells secrete

- (1) hemoglobin
- (2) myoglobin

- (3) hippurin
 - (4) histamine
- Ans: (4)

[2009]

Q646. The kind of tissue that forms the supportive structure in our pinna (external ears) is also found in:

- (1) tip of the nose
- (2) nails
- (3) vertebrae
- (4) ear ossicles

Ans: (1)

Q647. Which one of the following correctly describes the location of some body parts in the earthworm *Pheretima*?

- (1) Two pairs of testes in 10th and 11th segments.
- (2) Four pairs of spermathecae in 4 - 7 segments.
- (3) Two pairs of accessory glands in 16 - 18 segments.
- (4) One pair of ovaries attached at intersegmental septum of 14th and 15th segments.

Ans: (1)

[2009]

Q648. If a live earthworm is pricked with a needle on its outer surface without damaging its gut, the fluid that comes out is:

- (1) slimy mucus
- (2) coelomic fluid
- (3) excretory fluid
- (4) haemolymph

Ans: (2)

[2009]

Q649. The cell junctions called tight, adhering and gap junctions are found in

- (1) neural tissue
- (2) connective tissue
- (3) muscular tissue
- (4) epithelial tissue

Ans: (4)

[2009]

Q650. The epithelial tissue present on the inner surface of bronchioles and fallopian tube is:

- (1) squamous
- (2) glandular
- (3) cuboidal
- (4) ciliated

Ans: (4)

[2009]

Q651. The cells lining the blood vessels belong to the category of:

- (1) columnar epithelium
- (2) smooth muscle tissue
- (3) connective tissue
- (4) squamous epithelium

Ans: (4)

[2010]

Q652. Which of the following is correctly stated as it happens in the common cockroach?

- (1) Nitrogenous excretory product is urea
- (2) Malpighian tubules are excretory organs projecting out from the colon
- (3) The food is ground by mandibles and gizzard
- (4) Oxygen is transported by haemoglobin in blood

Ans: (3)

[2011]

Q653. The ciliated columnar epithelial cells in humans are known to occur in:

- (1) bile duct and oesophagus
- (2) eustachian tube and stomach lining
- (3) fallopian tubes and urethra
- (4) bronchioles and fallopian tubes

Ans: (4)

[2011]

Q654. One very special feature in the earthworm Pheretima is

that

- (1) the S- shaped setae embedded in the integument are the defensive weapons used against the enemies
- (2) fertilisation for eggs occurs inside the body
- (3) it has a long dorsal tubular heart
- (4) the typhlosole greatly increases the effective absorption area of the digested food in the intestine

Ans: (4)

[2011]

Q655. The kind of epithelium which forms the inner walls of blood vessels is:

- (1) ciliated columnar epithelium
- (2) cuboidal epithelium
- (3) squamous epithelium
- (4) columnar epithelium

Ans: (3)

[2011M]

Q656. Compared to those of humans, the erythrocytes in frog are

- (1) very much smaller and fewer
- (2) Without nucleus but with haemoglobin
- (3) nucleated and without haemoglobin.
- (4) nucleated and with haemoglobin

Ans: (4)

[2011M]

Q657. The type of muscles present in our:

- (1) thigh are striated and voluntary
- (2) heart are involuntary and unstriated smooth muscles
- (3) upper arm are smooth muscle fibres fusiform in shape
- (4) intestine are striated and involuntary

Ans: (1)

[2011M]

Q658. Which one of the following structures in Pheretima is correctly matched with its function?

- (1) Setae- defence against predators
- (2) Clitellum - secretes cocoon

(3) Typhlosole - storage of extra nutrients

(4) Gizzard - absorbs digested food

Ans: (2)

[2011M]

Q659. Consider the following four statements (A-D) related to the common frog *Rana tigrina*, and select the correct option stating which ones are true (T) and which ones are false (F) Statements: \ (A) On dry land it would die due to lack of O₂ its mouth is forcibly kept closed for a few days \ (B) It has four- chambered heart \ (C) On dry land it turns uricotelic from ureotelic \ (D) Its life-history is carried out in pond water Options: (A) (B) (C) (D)

(1) F F T T

(2) T F F T

F T T F

(4) T T F F

Ans: (2)

[2011M]

Q660. The breakdown of detritus into smaller particles by earthworm is a process called

(1) mineralisation

(2) humification

(3) catabolism

(4) fragmentation

Ans: (4)

[2012]

Q661. What external changes are visible after the last moult of a cockroach nymph?

(1) Labium develops

(2) Anal cerci develop

(3) Mandibles become harder

(4) Both fore wings and hind wings develop

Ans: (4)

[2012]

Q662.

Ans: (2)

Q663. The supportive skeletal structures in the human external ears and in the nose tip are examples of

- (1) bone
- (2) ligament
- (3) cartilage
- (4) areolar tissue

Ans: (3)

[2012M]

Q664.

Ans: (2)

Q665. Select the correct statement from the ones given below with respect to *Periplaneta americana*.

- (1) There are 16 very long Malpighian tubules present at the junctions of midgut and hindgut.
- (2) Nervous system located dorsally, consists of segmentally arranged ganglia joined by a pair of longitudinal connectives.
- (3) Grinding of food is carried out only by the mouth parts.
- (4) Males bear a pair of short thread like anal styles.

Ans: (4)

[NEET 2013]

Q666. Organelles can be separated from cell homogenate through

- (1) differential centrifugation
- (2) chromatography
- (3) auto-radiography
- (4) X-rays diffraction

Ans: (1)

Q667. *Acetabularia* used in Hammerling's nucleocytoplasmic experiments is

- (1) unicellular uninucleate green algae
- (2) unicellular fungus
- (3) unicellular multinucleate green algae
- (4) multicellular fungus

Ans: (1)

[NEET Kar. 2013]

Q668. According of fluid mosaic model, plasma membrane is composed of

- (1) phospholipids and integral proteins
- (2) phospholipids and oligosaccharides
- (3) phospholipids, extrinsic proteins and intrinsic proteins
- (4) phospholipids and hemicellulose

Ans: (3)

[1988]

Q669. Select the correct option with respect to cockroaches

- (1) Males bear short anal styles not present in females
- (2) The fore wings are tegmina which are used in flight
- (3) Nervous system comprises of a dorsal nerve cord and ten pairs of ganglion
- (4) Malpighian tubules convert nitrogenous wastes into urea

Ans: (1)

[1988]

Q670.

Ans: (2)

[1989]

Q671. Magnification of compound microscope is not connected with

- (1) focal length of eye piece
- (2) numerical aperture
- (3) tube length
- (4) focal length of objective

Ans: (2)

[1989]

Q672. A bivalent consists of

- (1) four chromatids and two centromeres
- (2) two chromatids and one centromere
- (3) four chromatids and four centromeres
- (4) two chromatids and two centromeres

Ans: (1)

[1989]

Q673. Nucleoproteins are synthesised in

- (1) nucleolus
- (2) nucleoplasm
- (3) cytoplasm
- (4) nuclear envelope

Ans: (3)

[1989]

Q674. Polyribosomes are aggregates of

- (1) peroxisomes
- (2) ribosomes and rRNA
- (3) several ribosomes held together by string of mRNA
- (4) only rRNA

Ans: (3)

[1989]

Q675. Plasma membrane is made of

- (1) proteins, lipids and carbohydrates
- (2) proteins and carbohydrates
- (3) proteins, some nucleic acid and lipids
- (4) proteins and lipids

Ans: (1)

[1990]

Q676. Fluid mosaic model of cell membrane was put forward by

- (1) Garner and Allard
- (2) Danielli and Davson
- (3) Watson and Crick
- (4) Singer and Nicolson

Ans: (4)

[1990]

Q677. Resolution power is the ability to

- (1) distinguish amongst organelles
- (2) distinguish two close points
- (3) magnify image
- (4) distinguish two close objects

Ans: (4)

[1990]

Q678. Electron microscope has a high resolution power. This is due to

- (1) low wavelength of light source used
- (2) electromagnetic lenses
- (3) high numerical aperture of glass lenses used
- (4) very low wavelength of electron beam

Ans: (4)

[1990, 92]

Q679. Hammerling's experiments of *Acetabularia* involved exchanging

- (1) rhizoid and stalk
- (2) cytoplasm
- (3) gametes
- (4) nucleus

Ans: (1)

[1991]

Q680. The latest model for plasma membrane is

- (1) fluid mosaic model
- (2) lamellar model
- (3) molecular lipid model
- (4) unit membrane model

Ans: (1)

[1991]

Q681. Ribosomes are the centre for

- (1) protein synthesis
- (2) respiration
- (3) fat synthesis
- (4) photosynthesis

Ans: (1)

[1991]

Q682. Angstrom (\AA) is equal to

- (1) 0.0001 mm
- (2) 0.01 mm
- (3) 0.00001 mm

(4) 0.001 mm

Ans: (1)

[1991]

Q683. Addition of new cell wall particles amongst the existing ones is

(1) intussusception

(2) deposition

(3) aggregation

(4) apposition

Ans: (1)

[1991]

Q684. Cell wall shows

(1) differential permeability

(2) complete permeability

(3) impermeability

(4) semipermeability

Ans: (2)

[1992]

Q685. Ribosomes were discovered by

(1) De Robertis

(2) Golgi

(3) Palade

(4) Porter

Ans: (3)

[1992]

Q686. Experiments on *Acetabularia* by Hammerling proved the role of

(1) chromosomes in heredity

(2) cytoplasm in controlling differentiation

(3) nucleo-cytoplasmic ratio

(4) nucleus in heredity

Ans: (4)

[1992]

Q687. Which one is apparato reticolare?

(1) Microfilaments

- (2) Golgi apparatus
- (3) Microtubules
- (4) Endoplasmic reticulum

Ans: (2)

[1992]

Q688. An outer covering membrane is absent over

- (1) mitochondrion
- (2) nucleolus
- (3) plastid
- (4) lysosome

Ans: (2)

[1992]

Q689. All plastids have similar structure because they can

- (1) perform same function
- (2) store starch, lipids and proteins
- (3) be present together
- (4) get transformed from one type to another

Ans: (4)

[1992]

Q690. Oxysomes of F₀ – F₁ particles occur on

- (1) inner mitochondrial membrane
- (2) thylakoids
- (3) chloroplast surface
- (4) mitochondrial surface

Ans: (1)

[1992]

Q691. In salivary gland chromosomes/polytene chromosomes, pairing is

- (1) formed between nonhomologous chromosomes
- (2) absent
- (3) formed between homologous chromosomes
- (4) occasional

Ans: (3)

[1992]

Q692. Which is correct about cell theory in view of current status

of our knowledge about cell structure

- (1) Cell theory does not hold good because all living beings (e.g., viruses) do not have cellular organisation
- (2) It needs modification due to discovery of subcellular structures like chloroplasts and mitochondria
- (3) Cell theory means that all living objects consist of cells whether or not capable of reproducing
- (4) Modified cell theory means that all living beings are composed of cells capable of reproducing

Ans: (1)

Q693. Names of Schleiden and Schwann are associated with

- (1) theory of cell lineage
- (2) protoplasm as the physical basis of life
- (3) nucleus functions as control centre of cell
- (4) cell theory

Ans: (4)

[1993]

Q694. Binding of specific protein on regulatory DNA sequence can be studied by means of

- (1) light microscope
- (2) ultra centrifugation
- (3) X-ray crystallography
- (4) electron microscope

Ans: (3)

[1993]

Q695. Glycogen is a polymer of

- (1) fructose
- (2) galactose
- (3) sucrose
- (4) glucose

Ans: (4)

[1993]

Q696. Balbiani rings (puffs) are sites of

- (1) synthesis of polysaccharides

[1993]

- (2) DNA replication
- (3) synthesis of lipids
- (4) RNA and protein synthesis

Ans: (4)

[1993]

Q697. In plant cells, peroxisomes are associated with

- (1) photoperiodism
- (2) photorespiration
- (3) photosynthesis
- (4) phototropism

Ans: (2)

[1993]

Q698. Membranous bag with hydrolytic enzymes which is used for controlling intracellular digestion of macro -molecules is

- (1) lysosome
- (2) endoplasmic reticulum
- (3) phagosome
- (4) nucleosome

Ans: (1)

[1993, 94]

Q699. Golgi apparatus is absent in

- (1) bacteria and
- (2) higher plants (4) yeast

Ans: (1)

[1993]

Q700. Cell recognition and adhesion occur due to biochemicals of cell membranes named

- (1) proteins and lipids
- (2) proteins
- (3) glycoproteins and glycolipids
- (4) lipids

Ans: (3)

[1993]

Q701. Auxetic growth is

- (1) increase in fatty tissue

- (2) increase in cell volume only
- (3) increase in intercellular material
- (4) increase in cell number only

Ans: (2)

[1994]

Q702. Series of reactions which can convert fatty acids to sugars in plants but not in animals is

- (1) ornithine cycle
- (2) krebs cycle
- (3) glycolysis
- (4) glyoxylate cycle

Ans: (4)

[1994]

Q703. Organelle having flattened membrane bound cisternae and lying near the nucleus is

- (1) centriole
- (2) golgi apparatus
- (3) nucleolus
- (4) mitochondrion

Ans: (2)

[1994]

Q704. Mitochondrial cristae are sites of

- (1) phosphorylation of flavoproteins
- (2) breakdown of macromolecules
- (3) oxidation-reduction reactions
- (4) protein synthesis

Ans: (3)

[1994]

Q705. Inner membrane convolutions of a mitochondrion are known as

- (2) grana
- (2) lamellae
- (3) cristae
- (4) thylakoids

Ans: (3)

[1994]

Q706. Lysosomes have a high content of

- (1) polyribosomes
- (2) hydrolytic enzymes
- (3) DNA ligases
- (4) lipoproteins

Ans: (2)

[1995]

Q707. The desmosomes are concerned with

- (1) cell adherence
- (2) cytolysis
- (3) cellular excretion
- (4) cell division

Ans: (1)

[1995]

Q708. The point, at which polytene chromosomes appears to be attached together, is called

- (1) chromomere
- (2) centriole
- (3) chromocentre
- (4) centromere

Ans: (3)

[1995]

Q709. The function of rough endoplasmic reticulum is

- (1) protein synthesis
- (2) fat synthesis
- (3) steroid synthesis
- (4) lipid synthesis

Ans: (1)

[1995]

Q710. The prokaryotic flagella possess

- (1) '9 + 2' membrane enclosed structure
- (2) unit membrane enclosed fibre
- (3) helically arranged protein molecule
- (4) protein membrane enclosed fibre

Ans: (3)

[1996, 2000]

Q711. The cell organelle involved in glyco-sylation of protein is

- (1) endoplasmic reticulum
- (2) ribosome
- (3) mitochondria
- (4) peroxisome

Ans: (1)

[1997]

Q712. The proteins are synthesised at

- (1) centrosomes
- (2) ribosomes
- (3) golgi bodies
- (4) mitochondria

Ans: (2)

[1999]

Q713. Which of the following organ has single membrane?

- (1) Mitochondria
- (2) Nucleus
- (3) Spherosomes
- (4) Cell Wall

Ans: (3)

[1999]

Q714. Some of the enzymes, which are associated in converting fats into carbohydrates, are present in

- (1) microsomes
- (2) liposomes
- (3) glyoxysomes
- (4) golgi bodies

Ans: (3)

[1999]

Q715. Genes located on mitochondrial DNA

- (1) show biparental inheritance like the nuclear genes
- (2) generally show maternal inheritance
- (3) are not inherited

(4) are always inherited from the male parent

Ans: (2)

[2000]

Q716. Ribosomes are produced in

(1) mitochondria

(2) nucleolus

(3) golgi body

(4) cytoplasm

Ans: (2)

[2001]

Q717. Which of the following occurs more than one and less than five in a chromosome?

(1) Centromere

(2) Chromatid

(3) Telomere

(4) Chromosome

Ans: (2)

[2001]

Q718. In fluid mosaic model of plasma membrane

(1) phospholipids form a bimolecular layer in middle part

(2) upper layer is non-polar and hydrophilic

(3) proteins form a middle layer

(4) upper layer is polar and hydrophobic

Ans: (1)

[2002]

Q719. Element necessary for middle lamella is

(1) K

(2) Ca

(3) Cu

(4) Zn

Ans: (2)

[2002]

Q720. Microtubules absent in

(1) flagella

(2) mitochondria

- (3) spindle fibres
 - (4) centriole
- Ans: (2)

[2002]

Q721. The main organelle involved in modification and routing of newly synthesized proteins to their destinations is

- (1) lysosome
 - (2) chloroplast
 - (3) endoplasmic Reticulum
 - (4) mitochondria
- Ans: (3)

[2002]

Q722. In chloroplasts, chlorophyll is present in the

- (1) thylakoids
 - (2) outer membrane
 - (3) stroma
 - (4) inner membrane
- Ans: (1)

[2003]

Q723. Flagella of prokaryotic and eukaryotic cells differ in

- (1) microtubular organization and type of movement
 - (2) type of movement and placement in cell
 - (3) microtubular organization and function
 - (4) location in cell and mode of functioning
- Ans: (1)

[2004]

Q724. In which one of the following is nitrogen not a constituent?

- (1) Bacteriochlorophyll
 - (2) Pepsin
 - (3) Invertase
 - (4) Idioblast
- Ans: (4)

[2004]

Q725. Mitotic spindle is mainly composed of which protein?

- (1) Tubulin
- (2) Actin
- (3) Myoglobin
- (4) Myosin

Ans: (1)

[2005]

Q726. Which of the following statement regarding mitochondrial membrane is not correct?

- (1) The outer membrane resembles a sieve
- (2) The enzymes of the electron transfer chain are embedded in the outer membrane
- (3) The outer membrane is permeable to all kinds of molecules
- (4) The inner membrane is highly convoluted forming a series of infoldings

Ans: (2)

[2005]

Q727. Protein synthesis in an animal cell occurs

- (1) on-ribosomes present in the nucleolus as well as in cytoplasm
- (2) only on the ribosomes present in cytosol
- (3) on ribosomes present in cytoplasm as well as in mitochondria
- (4) only on ribosomes attached to the nuclear envelope and endoplasmic reticulum

Ans: (3)

[2005]

Q728. Centromere is required for:

- (1) crossing over
- (2) movement of chromosomes towards poles
- (3) transcription
- (4) cytoplasmic cleavage

Ans: (2)

[2005]

Q729. A student wishes to study the cell structure under a light microscope having 10X eyepiece and 45X objective. He should illuminate the object by which one of the following colours of light so as to get the best possible resolution?

- (1) Yellow

- (2) Blue
- (3) Red
- (4) Green

Ans: (2)

[2005]

Q730. According to widely accepted “fluid mosaic model” cell membranes are semi-fluid, where lipids and integral proteins can diffuse randomly. In recent years, this model has been modified in several respects. In this regard, which of the following statements is incorrect?

- (1) Proteins can remain confined within certain domains of the membrane.
- (2) Proteins in cell membranes can travel within the lipid bilayer.
- (3) Many proteins remain completely embedded within the lipid bilayer.
- (4) Proteins can also undergo flip-flop movements in the lipid bilayer.

Ans: (4)

[2006]

Q731. Polysome is formed by

- (1) a ribosome with several subunits
- (2) several ribosomes attached to a single mRNA
- (3) ribosomes attached to each other in a linear arrangement
- (4) many ribosomes attached to a strand of endoplasmic reticulum

Ans: (2)

[2006]

Q732. Keeping in view the fluid mosaic model for the structure of cell membrane, which one of the following statements is correct with respect to the movement of lipids and proteins from one lipid monolayer to the other (described as flipflop movement)?

- (1) While proteins can flip-flop, lipids can not
- (2) Both lipids and proteins can flip-flop
- (3) Neither lipids, nor proteins can flip-flop
- (4) While lipids can rarely flip-flop, protein can not

Ans: (4)

[2007]

Q733. Which one of the following is not a constituent of cell

membrane?

- (1) phospholipids
- (2) glycolipids
- (3) cholesterol.
- (4) proline

Ans: (4)

[2007]

Q734. Select the wrong statement from the following

- (1) The chloroplasts are generally much larger than mitochondria
- (2) Both chloroplasts and mitochondria have an internal compartment, the thylakoid space bounded by the thylakoid membrane
- (3) Both chloroplasts and mitochondria contain an inner and an outer membrane.
- (4) Both chloroplasts and mitochondria contain DNA

Ans: (2)

Q735. A major breakthrough in the studies of cells came with the development of electron microscope. This is because

- (1) the electron microscope is more powerful than the light microscope as it uses a beam of electrons which has wavelength much longer than that of photons
- (2) the resolving power of the electron microscope is 200 – 350 nm as compared to 0.1 – 0.2 for the light microscope
- (3) the resolution power of the electron microscope is much higher than that of the light microscope
- (4) electron beam can pass through thick materials, whereas light microscopy requires thin sections

Ans: (3)

Q736. Cytoskeleton is made up of:

- (1) proteinaceous filaments
- (2) callose deposits
- (3) calcium carbonate granules
- (4) cellulosic microfibrils

Ans: (1)

[2008]

Q737. Plasmodesmata are:

- (1) connections between adjacent cells
- (2) locomotary structures
- (3) lignified cemented layers between cells
- (4) membranes connecting the nucleus with plasmalemma

Ans: (1)

[2008]

Q738. Vacuole in a plant cell

- (1) lacks membrane and contains air
- (2) is membrane-bound and contains storage proteins and lipids
- (3) lacks membrane and contains water and excretory substances
- (4) is membrane-bound and contains water and excretory substances

Ans: (4)

[2008]

Q739. The two sub-units of ribosome remain united a critical ion level of

- (1) magnesium
- (2) copper
- (3) calcium
- (4) manganese

Ans: (1)

[2009]

Q740. Cellulose is the major component of cell walls of

- (1) Pseudomonas
- (2) Pythium
- (3) Saccharomyces
- (4) Xanthomonas

Ans: (2)

[2009]

Q741. The main arena of various types of activities of a cell is:

- (1) cytoplasm
- (2) plasma membrane
- (3) nucleus
- (4) mitochondrion

Ans: (1)

[2009]

Q742. Which one of the following has its own DNA?

- (1) Lysosome
- (2) Mitochondria
- (3) Peroxisome
- (4) Dictyosome

Ans: (2)

[2009]

Q743. Which one of the following structures between two adjacent cells is an effective transport pathway?

- (1) Endoplasmic reticulum
- (2) Plasmodesmata
- (3) Plasmalemma
- (4) Plastoquinones

Ans: (2)

[2010]

Q744. Middle lamella is composed mainly of:

- (1) phosphoglycerides
- (2) muramic acid
- (3) hemicellulose
- (4) calcium pectate

Ans: (4)

[2010]

Q745. Stroma in the chloroplasts of higher plant contains:

- (1) chlorophyll.
- (2) light-dependent reaction enzymes
- (3) light-independent reaction enzymes
- (4) ribosomes

Ans: (3)

[2010]

Q746. What are those structures that appear as beads - on- string in the chromosomes when viewed under electron microscope?

- (1) Nucleosomes
- (2) Genes
- (3) Base pairs

(4) Nucleotides

Ans: (1)

[2010]

Q747. Peptide synthesis inside a cell takes place in:

- (1) chromoplast
- (2) chloroplast
- (3) ribosomes
- (4) mitochondria

Ans: (3)

[2011]

Q748. Important site for formation of glycoproteins and glycolipids is

- (1) plastid
- (2) vacuole
- (3) lysosome
- (4) golgi apparatus

Ans: (4)

[2011]

Q749. Given below is a sample of a portion of DNA strand. What is so special shown in it? 5' — GAATTC — 3' 3' —

CTTAAG — 5'

- (1) Start codon at the 5' end
- (2) Replication completed
- (3) Palindromic sequence of base pairs
- (4) Deletion mutation

Ans: (3)

[2011]

Q750. The plasma membrane consists mainly of:

- (1) proteins embedded in a polymer of glucose molecules
- (2) phospholipids embedded in a protein bilayer
- (3) proteins embedded in a carbohydrate bilayer
- (4) proteins embedded in a phospholipid bilayer

Ans: (4)

[2011]

Q751. Which one of the following does not differ in E.coli and

Chlamydomonas

- (1) Cell wall
- (2) Ribosomes
- (3) Cell membrane
- (4) Chromosomal Organization

Ans: (3)

Q752. Ribosomal RNA is actively synthesized in

- (1) Nucleoplasm
- (2) Lysosomes
- (3) Ribosomes
- (4) Nucleolus

Ans: (4)

[2011M]

Q753. Which one of the following is not considered as a part of the endomembrane system?

- (1) Vacuole
- (2) Golgi complex
- (3) Lysosome
- (4) Peroxisome

Ans: (4)

[2011M]

Q754. In mitochondria, proteins accumulate in the

- (1) intermembrane space
- (2) outer membrane
- (3) matrix
- (4) inner membrane

Ans: (4)

[2012]

Q755.

Ans: (4)

[2012]

Q756. Which one of the following cellular parts is correctly described?

- (1) Thylakoids - Flattened membranous sacs forming the grana of

chloroplasts.

(2) Centrioles - Sites for active RNA synthesis.

(3) Ribosomes - Those on chloroplasts are larger (80s) while those in the cytoplasm are smaller (70s).

(4) Lysosomes - Optimally active at a pH of about 8.5.

Ans: (1)

[2012]

Q757. Which one of the following structures is an organelle within an organelle?

(1) ER

(2) Ribosome

(3) Mesosome

(4) Peroxisome

Ans: (2)

[2012]

Q758. Select the correct statement from the following regarding cell membrane.

(1) Lipids are arranged in a bilayer with polar heads towards the inner part.

(2) Na^+ and K^+ ions move across cell membrane by passive transport

(3) Fluid mosaic model of cell membrane was proposed by Singer and Nicolson

(4) Proteins make up 60 to 70% of the cell membrane.

Ans: (3)

[2012]

Q759. Nuclear mebrane is absent in

(1) Volvox

(2) Penicillium

(3) Nostoc

(4) Agaricus

Ans: (3)

[2012M]

Q760. What is true about ribosomes

(1) These are found only in eukaryotic cells

(2) The prokaryotic ribosomes are 80S, where "S" stands for sedimentation coefficient

- (3) These are self-splicing introns of some RNAs.
- (4) These are composed of ribonucleic acid and proteins

Ans: (4)

[2012M]

Q761. Which of the following type of plastids does not contain stored food material?

- (1) Elaioplasts
- (2) Amyloplast
- (3) Aleuroplast
- (4) Chromoplast

Ans: (4)

Q762. The term 'glycocalyx' is used for

- (1) Cell wall of bacteria
- (2) A layer surrounding the cell wall of bacteria
- (3) Bacterial cell glyco-engineered to possess N-glycosylated proteins
- (4) A layer present between cell wall and membrane of bacteria

Ans: (2)

[NEET 2013]

Q763. A major site for synthesis of lipids is:

- (1) Nucleoplasm
- (2) SER
- (3) RER
- (4) Symplast

Ans: (2)

[NEET 2013]

Q764. The Golgi complex plays a major role

- (1) in post translational modification of proteins and glycosidation of lipids
- (2) in digesting proteins and carbohydrates
- (3) in trapping the light and transforming it into chemical energy
- (4) as energy transferring organelles

Ans: (1)

[NEET Kar. 2013]

Q765.

Ans: (1)

[NEET Kar. 2013]

Q766. Which is not consistent with double helical structure of DNA?

- (1) $A + T/C + G$ is not constant
- (2) $A = T, C = G$
- (3) Both A and B
- (4) Density of DNA decreases on heating

Ans: (1)

Q767. RNA does not possess

- (1) Adenine
- (2) Uracil
- (3) Cytosine
- (4) Thymine

Ans: (4)

[NEET Kar. 2013]

Q768. In double helix of DNA, the two DNA strands are

- (1) coiled differently (e) coiled over protein sheath
- (2) coiled around a common axis (4) coiled around each other

Ans: (2)

[1988]

Q769. Why is a capsule advantageous to a bacterium?

- (1) It provides means of locomotion
- (2) It allows the bacterium to attach to the surface
- (3) It allows bacterium to “hide” from host’s immune system
- (4) It protects the bacterium from desiccation

Ans: (3)

[1988]

Q770.

Ans: (4)

[1990]

Q771. A segment of DNA has 120 adenine and 120 cytosine bases. The total number of nucleotides present in the segment is

- (1) 60
- (2) 120
- (3) 480

(4) 240

Ans: (3)

[1991, 05]

Q772. The basic unit of nucleic acid is

- (1) Nucleoside
- (2) Pentose sugar
- (3) Nucleotide
- (4) Nucleoid

Ans: (3)

Q773. In RNA, thymine is replaced by

- (1) Cytosine
- (2) Adenine
- (3) Uracil
- (4) Guanine

Ans: (3)

[1991, 92]

Q774. Mineral associated with cytochrome is

- (1) Fe and Mg
- (2) Cu
- (3) Fe and Cu
- (4) Mg

Ans: (3)

[1991]

Q775. A nucleotide is formed of

- (1) Nitrogen base, sugar and phosphate
- (2) Purine, pyrimidine and phosphate
- (3) Pyrimidine, sugar and phosphate
- (4) Purine, sugar and phosphate

Ans: (1)

[1991]

Q776. Amino acids are produced from

- (1) Essential oils
- (2) Proteins
- (3) α -keto acids
- (4) Fatty acids

Ans: (3)

Q777. Living cell contains 60 – 75% water. Water present in human body is

- (1) 75 – 80%
- (2) 60 – 65%
- (3) 65 – 70%
- (4) 50 – 55%

Ans: (3)

[1991]

Q778. Adenine is

- (1) Nucleoside
- (2) Purine
- (3) Nucleotide
- (4) Pyrimidine

Ans: (2)

[1992]

Q779. Enzymes having slightly different molecular structure but performing identical activity are

- (1) Apoenzymes
- (2) Holoenzymes
- (3) Coenzymes
- (4) Isoenzymes

Ans: (4)

[1992]

Q780. DNA is composed of repeating units of

- (1) Ribonucleotides
- (2) Ribonucleosides
- (3) Deoxyribonucleotides
- (4) Deoxyribonucleosides

Ans: (3)

[1992]

Q781. Which one contains four pyrimidine bases?

- (1) UAGCGGUA
- (2) GATCAATGC
- (3) TGCCTAACG

(4) GCUAGACAA

Ans: (2)

Q782. The four elements making 99% of living system are

(1) CHON

(2) CHOS

(3) CNOP

(4) CHOP

Ans: (1)

[1993]

Q783. An enzyme brings about

(1) increase in activation energy

(2) decrease in reaction time

(3) reduction in activation energy

(4) increase in reaction time

Ans: (3)

[1993]

Q784. Which is wrong about nucleic acids?

(1) Length of one helix is 45\AA in B-DNA

(2) DNA is single stranded in some viruses

(3) One turn of Z-DNA has 12 bases

(4) RNA is double stranded occasionally

Ans: (1)

[1994]

Q785. Which is distributed more widely in a cell?

(1) Chloroplasts

(2) DNA

(3) Sphaerosomes

(4) RNA

Ans: (4)

[1994]

Q786. In which one of the following groups, all the three are examples of polysaccharides?

(1) glucose, fructose, lactose

(2) Starch, glycogen, cellulose

(3) Galactose, starch, sucrose

(4) Sucrose, maltose, glucose

Ans: (2)

[1995]

Q787. The nitrogenous organic base purine occurring in RNA is

(1) guanine

(2) cytosine

(3) uracil

(4) thymine

Ans: (1)

[1995]

Q788. The pyrenoids are made up of

(1) core of starch surrounded by sheath of protein

(2) proteinaceous centre and starchy sheath

(3) core of nucleic acid surrounded by protein sheath

(4) core of protein surrounded by fatty sheath

Ans: (2)

[1995]

Q789. A polysaccharide, which is synthesized and stored in liver cells, is

(1) arabinose

(2) lactose

(3) glycogen

(4) galactose

Ans: (3)

[1996]

Q790. Two free ribonucleotide units are interlinked with

(1) hydrogen bond

(2) peptide bond

(3) phosphodiester bond

(4) covalent bond

Ans: (3)

Q791. The RNA that picks up specific amino acids from the amino acid pool in the cytoplasm to ribosome during protein synthesis is called

- (1) rRNA
- (2) mRNA
- (3) carrier RNA
- (4) tRNA

Ans: (4)

[1996]

Q792. DNA synthesis can be specifically measured by estimating the incorporation of radio labelled

- (1) thymidine
- (2) uracil
- (3) deoxyribose sugar
- (4) adenine

Ans: (1)

[1997]

Q793. Protein synthesis in an animal cell takes place

- (1) in cytoplasm as well as in mitochondria
- (2) only in the cytoplasm
- (3) only on ribosomes attached to the nuclear envelope
- (4) in the nucleolus as well as in cytoplasm

Ans: (1)

[1997]

Q794. Genes are packed into a bacterial chromosome by

- (1) acidic proteins
- (2) histones
- (3) actin
- (4) basic proteins

Ans: (4)

[1997]

Q795. Most diverse macromolecules, found in the cell both physically and chemically are

- (1) nucleic acids
- (2) proteins
- (3) lipids.
- (4) carbohydrates

Ans: (2)

Q796. Minor changes at gene level are described as

- (1) Reverse mutations
- (2) Point mutations
- (3) Forward mutations
- (4) Chromosomal mutations

Ans: (2)

[1998]

Q797. Lactose is composed of

- (1) Fructose + Galactose
- (2) Glucose + Glucose
- (3) Glucose + Galactose.
- (4) Glucose + Fructose

Ans: (3)

[1998]

Q798. Cellulose, the most important constituent of plant cell wall is made of

- (1) unbranched chain of glucose molecules linked by β -1, 4 glycosidic bond
- (2) unbranched chain of glucose molecules linked by α -1, 4 glycosidic bond
- (3) branched chain of glucose molecules linked by α -1, 6 glycosidic bond at the site of branching.
- (4) branched chain of glucose molecules linked by β -1, 4 glycosidic bond in straight chain and α -1, 6 glycosidic bond at the site of branching

Ans: (1)

[1998]

Q799. The enormous diversity of protein molecules is due mainly to the diversity of

- (1) amino acid sequences within the protein molecule
- (2) amino groups on the amino acids
- (3) peptide bonds
- (4) R groups on the amino acids

Ans: (1)

[1998]

Q800. Radioactive thymidine when added to the medium surrounding living mammalian cells gets incorporated into the newly synthesized DNA. Which of the following types of

chromatin is expected to become radioactive if cells are exposed to radioactive thymidine as soon as they enter the S-phase?

- (1) Both heterochromatin and euchromatin
- (2) Heterochromatin
- (3) Neither heterochromatin nor euchromatin but only the nucleolus
- (4) Euchromatin

Ans: (4)

Q801. One of the similarities between DNA and RNA is that both

- (1) have similar sugars
- (2) are polymers of nucleotides
- (3) have similar pyrimidine bases
- (4) are capable of replicating

Ans: (2)

[1999]

Q802. The transfer RNA molecule in 3D appears

- (1) Y-shaped
- (2) L-shaped
- (3) S-shaped
- (4) E-shaped

Ans: (2)

[2000, 06]

Q803. Conjugated proteins containing carbohydrates as prosthetic group are known as

- (1) Lipoproteins
- (2) Chromoproteins
- (3) Nucleoproteins
- (4) Glycoproteins

Ans: (4)

[2000]

Q804. Length of one turn of the helix in a b-form DNA is approximately

- (1) 0.34 nm
- (2) 3.4 nm
- (3) 20 nm
- (4) 2 nm

Ans: (2)

[2000]

Q805. The secondary structure of that portion of an integral protein that is buried in the lipid bilayer of a cell membrane is

- (1) random coil
- (2) β -strand
- (3) α -helix
- (4) β -bend

Ans: (3)

[2000]

Q806. Most abundant organic compound on earth is

- (1) Lipids
- (2) Protein
- (3) Steroids
- (4) Cellulose

Ans: (4)

[2000]

Q807. Due to discovery of which of the following in 1980 the evolution was termed as RNA world?

- (1) RNA have enzymatic property
- (2) mRNA, tRNA, rRNA synthesise proteins
- (3) RNA is not found in all cells
- (4) In some virus RNA is genetic material

Ans: (1)

[2000]

Q808. Which is an essential amino acid?

- (1) Glycine
- (2) Serine
- (3) Phenylalanine
- (4) Aspartic acid

Ans: (3)

[2000]

Q809. Enzymes enhance the rate of reaction by

- (1) combining with the product as soon as it is formed
- (2) forming a reactant-product complex

- (3) lowering the activation energy of the reaction
- (4) changing the equilibrium point of the reaction

Ans: (3)

[2001]

Q810. Feedback inhibition of an enzymatic reaction is caused by

- (1) Enzyme
- (2) End product
- (3) Rise in temperature
- (4) Substrate

Ans: (2)

[2001]

Q811. Collagen is

- (1) lipid
- (2) fibrous protein
- (3) carbohydrate
- (4) globular protein

Ans: (2)

[2001]

Q812. Which of the following is a reducing sugar?

- (1) beta -methyl galactoside
- (2) galactose
- (3) sucrose
- (4) gluconic acid

Ans: (2)

[2001]

Q813. Lipids are insoluble in water because lipid molecules are

- (1) neutral
- (2) hydrophilic
- (3) zwitter ions
- (4) hydrophobic

Ans: (4)

[2002]

Q814. Spoilage of oil can be detected by which fatty acid?

- (1) Linoleic acid
- (2) Oleic acid

- (3) Erucic acid
- (4) Linolenic acid

Ans: (3)

Q815. Types of RNA polymerase required in nucleus for RNA synthesis?

- (1) 3
- (2) 1
- (3) 4
- (4) 2

Ans: (1)

Q816. The catalytic efficiency of two different enzymes can be compared by the

- (1) K_m value
- (2) formation of the product
- (3) molecular size of the enzyme
- (4) pH optimum value

Ans: (1)

Q817. Which of the following statements regarding enzyme inhibition is correct?

- (1) Non-competitive inhibition of an enzyme can be overcome by adding large amount of substrate.
- (2) Competitive inhibition is seen when a substrate competes with an enzyme for binding to an inhibitor protein.
- (3) Non-competitive inhibitors often bind to the enzyme irreversibly.
- (4) Competitive inhibition is seen when the substrate and the inhibitor compete for the active site on the enzyme.

Ans: (4)

[2004]

Q818. Which form of RNA has a structure resembling clover leaf?

- (1) m RNA
- (2) rRNA
- (3) t RNA

(4) hn RNA

Ans: (3)

[2004]

Q819. In which one of the following enzymes, is copper necessarily associated as an activator?

(1) Lactic dehydrogenase

(2) Carbonic anhydrase

(3) Tyrosinase

(4) Tryptophanase

Ans: (3)

[2005]

Q820. Cancer cells are more easily damaged by radiation than normal cells because they are

(1) different in structure

(2) starved of mutation

(3) non-dividing

(4) undergoing rapid division

Ans: (4)

[2005]

Q821. Carbohydrates, the most abundant biomolecules on earth, are produced by:

(1) all bacteria, fungi and algae

(2) some bacteria, algae and green plant cells

(3) viruses, fungi and bacteria

(4) fungi, algae and green plant cells

Ans: (2)

[2005]

Q822. Antiparallel strands of a DNA molecule means that

(1) one strand turns clockwise

(2) the phosphate groups of two DNA strands, at their ends. share the same position

(3) one strand turns anti-clockwise

(4) the phosphate groups at the start of two DNA strands are in opposite position (pole)

Ans: (2)

[2005]

Q823. Which one of the following hydrolyses internal phosphodiester bonds in a polynucleotide chain?

- (1) Endonuclease
- (2) Lipase
- (3) Exonuclease
- (4) Protease

Ans: (1)

[2005]

Q824. Which of the following is the simplest amino acid?

- (1) Glycine
- (2) Alanine
- (3) Tyrosine
- (4) Asparagine

Ans: (1)

Q825. Enzymes, vitamins and hormones can be classified into a single category of biological chemicals, because all of these

- (1) are conjugated proteins
- (2) help in regulating metabolism
- (3) enhance oxidative metabolism
- (4) are exclusively synthesized in the body of a living organism as at present

Ans: (2)

[2005]

Q826.

Ans: (3)

[2006]

Q827. Carrier ions like Na^+ facilitate the absorption of substances like:

- (1) fatty acids and glycerol
- (2) amino acids and glucose
- (3) fructose and some amino acids
- (4) glucose and fatty acids

Ans: (2)

[2007]

Q828. A competitive inhibitor of succinic dehydrogenase is

- (1) m-ketoglutarate
- (2) Malonate
- (3) Malate
- (4) Oxaloacetate

Ans: (2)

[2008]

Q829. About 98 percent of the mass of every living organism is composed of just six element including carbon, hydrogen, nitrogen, oxygen and

- (1) calcium and phosphorus
- (2) sulphur and magnesium
- (3) phosphorus and sulphur.
- (4) magnesium and sodium

Ans: (1)

[2010]

Q830. An organic substance bound to an enzyme and essential for its activity is called

- (1) Isoenzyme
- (2) Holoenzyme
- (3) Coenzyme
- (4) Apoenzyme

Ans: (3)

Q831. Which one of the following biomolecules is correctly characterized?

- (1) Adenylic acid - Adenosine with a glucose phosphate molecule.
- (2) Lecithin - A phosphorylated glyceride found in cell membrane.
- (3) Alanine amino acid - Contains an amino group and an acidic group anywhere in the molecule.
- (4) Palmitic acid - An unsaturated fatty acid with 18 carbon atoms.

Ans: (2)

Q832.

Ans: (4)

Q833. Which one is the most abundant protein in the animal world

- (1) Collagen
- (2) Trypsin
- (3) Insulin
- (4) Haemoglobin

Ans: (1)

[2012]

Q834.

Ans: (3)

Q835.

Ans: (4)

[2012M]

Q836. Which of the following statements about enzymes is wrong?

- (1) Enzymes are mostly proteins but some are lipids also
- (2) Enzymes require optimum pH and temperature for maximum activity
- (3) Enzymes are highly specific
- (4) Enzymes are denatured at high temperatures

Ans: (1)

[NEET 2013]

Q837. Macro molecule chitin is:

- (1) Simple polysaccharide
- (2) Phosphorus containing polysaccharide
- (3) Nitrogen containing polysaccharide
- (4) Sulphur containing polysaccharide

Ans: (3)

[NEET 2013]

Q838. Transition state structure of the substrate formed during an enzymatic reaction is:

- (1) permanent and stable
- (2) permanent but unstable
- (3) transient but stable
- (4) transient and unstable

Ans: (4)

[NEET 2013]

Q839. The essential chemical components of many coenzymes are:

- (1) Vitamins
- (2) Nucleic acids
- (3) Proteins
- (4) Carbohydrates

Ans: (1)

[NEET 2013]

Q840. A phosphoglycerate is always made up of:

- (1) a saturated or unsaturated fatty acid esterified to a phosphate group which is also attached to a glycerol molecule.
- (2) only an unsaturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached
- (3) only a saturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached
- (4) a saturated or unsaturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached

Ans: (4)

[NEET Kar. 2013]

Q841. In meiosis, the daughter cells differ from parent cell as well as amongst themselves due to

- (1) independent assortment and crossing over
- (2) segregation, independent assortment and crossing over
- (3) segregation and independent assortment
- (4) segregation and crossing over

Ans: (2)

Q842. Mitotic anaphase differs from metaphase in possessing

- (1) half number of chromosomes and same number of chromatids
- (2) same number of chromosomes and same number of chromatids
- (3) same number of chromosomes and half number of chromatids
- (4) half number of chromosomes and half number of chromatids

Ans: (3)

[1988]

Q843. Segregation of mendelian factor (Aa) occurs during

- (1) Zygotene/Pachytene
- (2) Diplotene
- (3) Anaphase II
- (4) Anaphase I

Ans: (4)

[1990]

Q844. Meiosis I is reductional division. Meiosis II is equational division due to

- (1) separation of chromatids
- (2) pairing of homologous chromosomes
- (3) disjunction of homologous chromosomes
- (4) crossing over

Ans: (1)

[1991]

Q845.

Ans: (4)

[1991]

Q846. The exchange of genetic material between chromatids of paired homologous chromosomes during first meiotic division is called

- (1) crossing over
- (2) transformation
- (3) synapsis
- (4) chiasmata

Ans: (1)

[1992]

Q847. Meiosis is evolutionary significant because it result in

- (1) eggs and sperms
- (2) genetically similar daughters
- (3) recombinations
- (4) four daughter cells

Ans: (3)

[1993]

Q848. Best stage to observe shape, size and number of

chromosomes is

- (1) prophase
- (2) interphase
- (3) telophase
- (4) metaphase

Ans: (4)

[1994]

Q849. Meiosis II performs

- (1) separation of homologous chromosomes
- (2) separation of sex chromosomes
- (3) separation of chromatids
- (4) synthesis of DNA and centromere

Ans: (3)

[1994]

Q850. Number of chromatids at metaphase is

- (1) two in mitosis and four in meiosis
- (2) two each in mitosis and meiosis
- (3) one in mitosis and two in meiosis
- (4) two in mitosis and one in meiosis

Ans: (2)

[1996]

Q851. How many mitotic divisions are needed for a single cell to make 128 cells?

- (1) 28
- (2) 7
- (3) 64
- (4) 14

Ans: (2)

[1996, 2000]

Q852. Which one of the following structures will not be common to mitotic cells of higher plants?

- (1) centromere
- (2) cell plate
- (3) spindle fibres
- (4) centriole

Ans: (4)

[1996]

Q853. Colchicine is employed to diploidize a haploid cell as it

- (1) allows replication of DNA twice in one cell cycle
- (2) inhibits mitosis
- (3) inhibits formation of centromere
- (4) inhibits formation of mitotic spindle

Ans: (4)

[1996]

Q854. Lampbrush chromosomes occur during

- (1) metaphase of meiosis
- (2) prophase of mitosis
- (3) interphase
- (4) diplotene of meiosis

Ans: (4)

[1997]

Q855. In cell cycle, DNA replication takes place in

- (1) mitotic metaphase
- (2) G1 phase
- (3) S phase
- (4) G2 phase

Ans: (3)

[1997]

Q856. Best material for the study of mitosis in laboratory is

- (1) leaf tip
- (2) anther
- (3) ovary
- (4) root tip

Ans: (4)

[1997]

Q857. During cell division, the spindle fibres attach to the chromosome at a region called

- (1) centriole
- (2) chromocentre
- (3) chromomere

(4) kinetochore

Ans: (4)

[1998]

Q858. A bacterium divides every 35 minutes. If a culture containing 10^5 cells per ml is grown for 175 minutes, what will be the cell concentration per ml after 175 minutes?

(1) 32×10^5 cells

(2) 5×10^5 cells

(3) 175×10^5 cells

(4) 35×10^5 cells

Ans: (1)

[1998]

Q859. Microtubule is involved in the

(1) membrane architecture

(2) cell division

(3) dNA recognition

(4) muscle contraction

Ans: (2)

[2000]

Q860. During cell division in apical meristem the nuclear membrane appears in

(1) telophase

(2) metaphase

(3) cytokinesis

(4) anaphase

Ans: (1)

[2002]

Q861. At what stage of the cell cycle are histone proteins synthesized in a eukaryotic cell?

(1) During entire prophase

(2) During G-2 stage of prophase

(3) During telophase

(4) During S-phase

Ans: (4)

[2002]

Q862. Which one of the following precedes reformation of the nuclear envelope during M phase of the cell cycle

- (1) Formation of the contractile ring, and formation of the phragmoplast
- (2) Decondensation from chromosomes, and reassembly of the nuclear lamina
- (3) Formation of the contractile ring, and transcription from chromosomes
- (4) Transcription from chromosomes, and reassembly of the nuclear lamina

Ans: (4)

[2004]

Q863. If you are provided with root-tips of onion in your class and are asked to count the chromosomes, which of the following stages can you most conveniently look into?

- (1) Anaphase
- (2) Metaphase
- (3) Prophase
- (4) Telophase

Ans: (2)

[2004]

Q864. In the somatic cell cycle

- (1) a short interphase is followed by a long mitotic phase
- (2) In G1 phase DNA content is double the amount of DNA present in the original cell
- (3) G2 phase follows mitotic phase
- (4) DNA replication takes place in S-phase

Ans: (4)

[2004]

Q865. If a diploid cell is treated with colchicine then it becomes

- (1) diploid
- (2) triploid
- (3) monoploid
- (4) tetraploid

Ans: (4)

[2005]

Q866. Select the correct option with respect to mitosis.

- (1) Golgi complex and endoplasmic reticulum are still visible at the end of

prophase.

(2) Chromatids separate but remain in the centre of the cell in anaphase.

(3) Chromosomes move to the spindle equator and get aligned along equatorial plate in metaphase

(4) Chromatids start moving towards opposite poles in telophase.

Ans: (3)

Q867. Which stages of cell division do the following figures A and B represent respectively? Fig. A Fig. B

(1) Late Anaphase - Prophase

(2) Metaphase - Telophase

(3) Prophase - Anaphase

(4) Telophase - Metaphase

Ans: (1)

[2009]

Q868. During mitosis ER and nucleolus begin to disappear at:

(1) late metaphase

(2) late prophase

(3) early prophase

(4) early metaphase

Ans: (3)

[2010]

Q869. Synapsis occurs between:

(1) two homologous chromosomes

(2) mRNA and ribosomes

(3) a male and a female gamete

(4) spindle fibres and centromere

Ans: (1)

[2010]

Q870.

Ans: (4)

[2011]

Q871. A stage in cell division is shown in the figure. Select the answer which gives correct identification of the stage with its characteristics.

- (1) Telophase Endoplasmic reticulum and nucleolus not reformed yet
- (2) Late anaphase Chromosomes move away from equatorial plate, Golgi complex not present
- (3) Telophase Nuclear envelop reforms, golgi complex reforms
- (4) Cytokinesis Cell plate formed, mitochondria distributed between two daughter cells

Ans: (3)

[2011M]

Q872. Identify the meiotic stage in which the homologous chromosomes separate while the sister chromatids remain associated at their centromeres?

- (1) Anaphase I
- (2) Metaphase I
- (3) Anaphase II
- (4) Metaphase II

Ans: (1)

[2012]

Q873. Given below is the representation of a certain event at a particular stage of a type of cell division. Which is this stage?

- (1) Prophase of Mitosis
- (2) Prophase I during meiosis
- (3) Both prophase and metaphase of mitosis
- (4) Prophase II during meiosis

Ans: (2)

[2012]

Q874. During gamete formation, the enzyme recombinase participates during

- (1) Prophase - I
- (2) Metaphase - I
- (3) Prophase - II
- (4) Anaphase - II

Ans: (1)

[2012M]

Q875. At metaphase, chromosomes are attached to the spindle fibres by their:

- (1) kinetochores
- (2) satellites
- (3) centromere
- (4) secondary constrictions

Ans: (1)

[NEET 2013]

Q876. Water potential is equal to

- (1) $\psi_p + \psi_w$
- (2) $\psi_s + O.P.$
- (3) $\psi_s + \psi_p$
- (4) $\psi_s = T.P.$

Ans: (3)

[NEET 2013]

Q877.

Ans: (1)

[NEET Kar. 2013]

Q878. During meiosis I, the chromosomes start pairing at

- (1) Pachytene
- (2) Leptotene
- (3) Diplotene
- (4) Zygotene

Ans: (4)

[NEET Kar. 2013]

Q879. During the metaphase stage of mitosis spindle fibres attach to chromosomes at

- (1) Both centromere and kinetochore
- (2) Centromere
- (3) Centromere, kinetochore and areas adjoining centromere
- (4) Kinetochore

Ans: (4)

Q880. The complex formed by a pair of synapsed homologous chromosomes is called

- (1) Axoneme
- (2) Kinetochore
- (3) Equatorial plate

(4) Bivalent
Ans: (4)

[1988]

Q881. The principal pathway of water translocation in angiosperms is

- (1) xylem vessel system
- (2) sieve cells
- (3) xylem and phloem
- (4) sieve tube elements

Ans: (1)

[1988]

Q882. A bottle filled with previously moistened Mustard seeds and water was screw capped tightly and kept in a corner. It blew up suddenly after about half an hour. The phenomenon involved is

- (1) osmosis
- (2) diffusion
- (3) d.P.D
- (4) imbibition

Ans: (4)

[1988]

Q883. Stomata open and close due to

- (1) pressure of gases inside the leaves
- (2) circadian rhythm
- (3) turgor pressure of guard cells
- (4) genetic clock

Ans: (3)

[1988, 2002]

Q884. Phenyl mercuric acetate (PMA) results in

- (1) reduced respiration
- (2) reduced photosynthesis
- (3) killing of plants

(4) reduced transpiration [1990]

Q885. Transpiration is least in

- (1) dry environment
- (2) good soil moisture

- (3) high atmospheric humidity
 - (4) high wind velocity
- Ans: (3)

[1990]

Q886. Guttation is mainly due to

- (1) transpiration
- (2) root pressure
- (3) imbibition
- (4) osmosis

Ans: (2)

[1991, 99]

Q887. Which of the following is used to determine the rate of transpiration in plants?

- (1) Auxanometer
- (2) Porometer/hygrometer
- (3) Tensiometer/ Barometer
- (4) Potometers

Ans: (4)

[1991]

Q888. Water movement between cells is due to

- (1) D.P.D
- (2) T.P.
- (3) Incipient plasmolysis
- (4) W.P.

Ans: (1)

[1992]

Q889. The most widely accepted theory for ascent of sap in trees is

- (1) pulsating action of living cell
- (2) capillarity
- (3) transpiration pull and cohesion Theory of Dixon and Jolly
- (4) role of atmospheric pressure

Ans: (3)

[1992]

Q890. In soil, the water available for root absorption is

- (1) hygroscopic water
- (2) gravitational water
- (3) combined water
- (4) capillary water

Ans: (4)

[1992]

Q891. Amino acids are mostly synthesised from

- (1) volatile acids
- (2) mineral salts
- (3) α -ketoglutaric acid
- (4) fatty acids

Ans: (3)

[1992]

Q892. In guard cells when sugar is converted into starch, the stomatal pore

- (1) opens fully
- (2) closes completely
- (3) remains unchanged
- (4) opens partially

Ans: (2)

[1992]

Q893. At constant temperature, the rate of transpiration will be higher at

- (1) 1 km above sea level
- (2) Sea level
- (3) 1.5 km above sea level
- (4) 1 km below sea level

Ans: (3)

[1992]

Q894. Conversion of starch to organic acids is required for

- (1) stomatal formation
- (2) stomatal opening
- (3) stomatal activity
- (4) stomatal closing

Ans: (2)

[1992]

Q895. In terrestrial habitats, temperature and rainfall conditions are influenced by

- (1) thermoperiodism
- (2) water transformations
- (3) translocation
- (4) transpiration

Ans: (4)

[1992]

Q896. The movement of mineral ions into plant root cells as a result of diffusion is called

- (1) passive absorption
- (2) osmosis
- (3) endocytosis
- (4) active absorption

Ans: (1)

[1993]

Q897. The closure of lid of pitcher in a pitcher plant, is due to

- (1) paratonic movement
- (2) turgor movement
- (3) autonomous movement
- (4) tropic movement

Ans: (1)

[1993]

Q898. Active and passive transports across cell membrane differ in

- (1) active transport is more rapid
- (2) passive transport is nonselective
- (3) passive transport is confined to anions while active transport is confined to cations
- (4) passive transport is along the concentration gradient while active transport is due to metabolic energy

Ans: (4)

[1993]

Q899. An adaptation for better gaseous exchange in plant leaves

is

- (1) waxy cuticle
- (2) hair on lower surface
- (3) stomata on lower surface away from direct sun rays.
- (4) multiple epidermis

Ans: (3)

[1995]

Q900. Which is produced during water stress that brings stomatal closure

- (1) ferulic acid
- (2) ethylene
- (3) coumarin
- (4) abscisic acid

Ans: (4)

Q901. Water potential in the leaf tissue is positive (+) during

- (1) excessive absorption
- (2) excessive transpiration
- (3) guttation
- (4) low transpiration

Ans: (3)

[1997]

Q902. Plants die from prolonged water-logging because

- (1) cell sap in the plants becomes too dilute
- (2) soil nutrients become very dilute
- (3) nutrients leach down due to excess water
- (4) root respiration stops

Ans: (4)

[1997]

Q903. The core metal of chlorophyll is

- (1) nickel
- (2) iron
- (3) copper
- (4) magnesium

Ans: (4)

[1997]

Q904. Bidirectional translocation of minerals takes place in

- (1) parenchyma
- (2) xylem
- (3) cambium
- (4) phloem

Ans: (4)

[1997]

Q905. With increase in the turgidity of a cell surrounded by water the wall pressure will

- (1) fluctuate
- (2) increase
- (3) remain unchanged
- (4) decrease

Ans: (2)

[1997]

Q906. Movement of ions or molecules in a direction opposite to that of prevailing electrochemical gradient is known as

- (1) pinocytosis
- (2) diffusion
- (3) brownian movement
- (4) active transport

Ans: (4)

[1997]

Q907. Water potential of actively absorbing cells is

- (1) always 0
- (2) always + ve
- (3) always > 1
- (4) always - ve

Ans: (4)

[1998]

Q908. If a cell A with DPD 4 bars is connected to cell B, C, D whose OP and TP are respectively 4 and 4, 10 and 5 and 7 and 3 bars, the flow of water will be

- (1) B to A, C and D
- (2) A and D to B and C

(3) C to A, B and D

(4) A to B,C and D

Ans: (1)

[1998]

Q909. The water potential and osmotic potential of pure water are

(1) zero and 100

(2) zero and zero

(3) 100 and zero

(4) 100 and 100

Ans: (2)

[1999]

Q910. Suppose an aquatic plant is placed in a test tube containing distilled water and the tube is stoppered. The tube is left outdoors for 24 hours and the pH value of the water is then measured at regular intervals. Which of the following is the most probable result?

(1) The pH value is lowest at noon

(2) The pH value is lowest just before sunrise

(3) The pH value is lowest just before sunset.

(4) The pH value is highest just before sunrise

Ans: (2)

[2000]

Q911. The ability of the Venus fly trap to capture insects is due to:

(1) a passive process requiring no special ability on the part of the plant

(2) specialised “muscle-like” cells

(3) rapid turgor pressure changes

(4) chemical stimulation by the prey

Ans: (3)

[2001]

Q912. Dough kept overnight in warm weather becomes soft and spongy because of

(1) cohesion

- (2) absorption of carbon dioxide from atmosphere
- (3) osmosis
- (4) fermentation

Ans: (4)

[2001]

Q913. Stomata of a plant open due to

- (1) efflux of potassium ions
- (2) influx of calcium ions
- (3) influx of hydrogen ions
- (4) influx of potassium ions

Ans: (4)

[2003]

Q914. When water moves through a semi permeable membrane then which of the following pressure develops?

- (1) T. P.
- (2) O. P.
- (3) W. P
- (4) S. P

Ans: (2)

[2004]

Q915. Which of the following plant is found to have minimum transpiration

- (1) Mango
- (2) Nerium
- (3) Guava
- (4) Hydrilla

Ans: (2)

[2005]

Q916. Which one of the following statements is correct?

- (1) At present it is not possible to grow maize without chemical fertilizers
- (2) Both Azotobacter and Rhizobium fix atmospheric nitrogen in root nodules of plants.
- (3) Extensive use of chemical fertilizers may lead to eutrophication of nearby water bodies.
- (4) Cyanobacteria such as Anabaena and Nostoc are important mobilizers of

phosphates and for plant nutrition in soil

Ans: (3)

[2005]

Q917. Two cells A and B are contiguous. Cell A has osmotic pressure 10 atm, turgor pressure 7 atm and diffusion pressure deficit 3 atm. Cell B has osmotic pressure 8 atm, turgor pressure 3 atm and diffusion pressure deficit 5 atm. The result will

- (1) movement of water from cell A to B.
- (2) no movement of water
- (3) movement of water from cell B to A.
- (4) equilibrium between the two

Ans: (1)

[2006]

Q918. The translocation of organic solutes in sieve tube members is supported by

- (1) cytoplasmic streaming
- (2) P-proteins
- (3) root pressure and transpiration pull
- (4) mass flow involving a carrier and ATP

Ans: (2)

[2006]

Q919. Sulphur is an important nutrient for optimum growth and productivity in

- (1) oilseed crops
- (2) cereals
- (3) pulse crops
- (4) fibre crops

Ans: (3)

[2007]

Q920. Potometer works on the principle of

- (1) root pressure
- (2) osmotic pressure
- (3) potential difference between the tip of the tube and that of the plant
- (4) amount of water absorbed equals the amount transpired

Ans: (4)

[2007]

Q921. Which of the following criteria does not pertain to facilitated transport?

- (1) Uphill transport
- (2) High selectivity
- (3) Requirement of special membrane proteins
- (4) Transport saturation

Ans: (1)

[2008]

Q922. Guttation is the result of:

- (1) osmosis
- (2) diffusion
- (3) root pressure
- (4) transpiration

Ans: (3)

[2008]

Q923. Guard cells help in:

- (1) fighting against infection
- (2) transpiration
- (3) protection against grazing
- (4) guttation

Ans: (2)

[2009]

Q924. Carbohydrates are commonly found as starch in plant storage organs. Which of the following five properties of starch (a-e) make it useful as a storage material? (A) Easily translocated (B) Chemically non-reactive (C) Easily digested by animals (D) Osmotically inactive (E) Synthesized during photosynthesis The useful properties are

- (1) (A), (C) and (E)
- (2) (B) and (C)
- (3) (A) and (E)
- (4) (B) and (D)

Ans: (4)

[2011M]

Q925. The rupture and fractionation do not usually occur in the water column in vessel/tracheids during the ascent of sap because of

- (1) weak gravitational pull
- (2) lignified thick walls
- (3) transpiration pull
- (4) cohesion and adhesion

Ans: (4)

[NEET 2013]

Q926. Mycorrhiza is a symbiotic relationship between roots of higher plants and

- (1) bacteria
- (2) virus
- (3) blue green algae
- (4) fungi

Ans: (4)

Q927. Which one is an essential mineral, not constituent of any enzyme but stimulates the activity of many enzymes

- (1) K
- (2) Zn
- (3) Mg
- (4) Mn

Ans: (1)

[1988]

Q928. Phosphorous and nitrogen ions generally get depleted in soil because they usually occur as

- (1) positively charged ions
- (2) neutral ions
- (3) both positively and negatively charged but disproportionate mixture
- (4) negatively charged ions

Ans: (3)

[1989]

Q929. Minerals absorbed by roots move to the leaf through

- (1) sieve tubes
- (2) xylem
- (3) none of the above
- (4) phloem

Ans: (2)

[1989]

Q930.

Ans: (3)

[1995]

Q931. Which of the following is not caused by deficiency of mineral nutrition?

- (1) Etiolation
- (2) Necrosis
- (3) Shortening of internodes
- (4) Chlorosis

Ans: (1)

[1995]

Q932. Which one of the following is not an essential element for plants?

- (1) Iodine
- (2) Potassium
- (3) Zinc
- (4) Iron

Ans: (1)

[1995]

Q933. Which one of the following is a micronutrient for plants?

- (1) Manganese
- (2) Calcium
- (3) Nitrogen
- (4) Magnesium

Ans: (1)

[1996]

Q934. Which of the following can fix atmospheric nitrogen?

- (1) Saprolegnia
- (2) Albugo

(3) Anabaena

(4) Cystopus

Ans: (3)

[1996]

Q935. The association between blue-green algae and fungi occurs in

(1) cannibism

(2) lichens

(3) mycorrhiza

(4) symbiosis

Ans: (2)

[1997]

Q936. Passive absorption of minerals depend on

(1) metabolic inhibitor

(2) temperature

(3) humidity

(4) temperature and metabolic inhibitor

Ans: (2)

[1997]

Q937. Enzyme involved in nitrogen assimilation

(1) transferase

(2) nitrogenase

(3) transaminase

(4) nitrate reductase

Ans: (2)

[1999]

Q938. The plants grown in magnesium-deficient but urea sprayed soil would show

(1) yellowing of leaves

(2) deep green foliage

(3) loss of pigments in petals

(4) early flowering

Ans: (1)

[2000]

Q939. A pair of insectivorous plants is

- (1) Dionaea and Viscum
- (2) Drosera and Rafflesia
- (3) Venus fly trap and Rafflesia
- (4) Nepenthes and Bladderwort

Ans: (4)

[2001]

Q940. Which of the following is a free living aerobic nonphotosynthetic nitrogen-fixer?

- (1) Azospirillum
- (2) Rhizobium
- (3) Nostoc
- (4) Azotobacter

Ans: (4)

[2001]

Q941. Which one of the following mineral elements plays an important role in biological nitrogen fixation?

- (1) Manganese
- (2) Molybdenum
- (3) Zinc
- (4) Copper

Ans: (2)

[2001]

Q942. The major role of minor elements inside living organisms is to act as

- (1) building blocks of important amino acids
- (2) binder of cell structure
- (3) constituent of hormones
- (4) co-factors of enzymes

Ans: (4)

[2001]

Q943. Choose the correct match

- (1) Utricularia, Drosera, Dionaea
- (2) Trapa, Dionaea, Drosera
- (3) Dionaea, Trapa, Vanda
- (4) Nepenthes, Utricularia, Vanda

Ans: (1)

[2002]

Q944. In plants inulin and raphides

- (1) secretory material
- (2) reserved food material
- (3) insect attracting material
- (4) wastes

Ans: (2)

[2003]

Q945. Which aquatic fern performs nitrogen fixation?

- (1) Salvia
- (2) Azolla
- (3) Salvinia
- (4) Nostoc

Ans: (2)

[2003]

Q946. The deficiencies of micronutrients, not only affects growth of plants but also vital functions such as photosynthetic and mitochondrial electron flow. Among the list given below, which group of three elements shall affect most, both photosynthetic and mitochondrial electron transport:

- (1) Mn, Co, Ca
- (2) Co, Ni, Mo
- (3) Cu, Mn, Fe
- (4) Ca, K, Na

Ans: (3)

[2003]

Q947. A free living nitrogen-fixing cyanobacterium which can also form symbiotic association with the water fern Azolla is

- (1) Nostoc
- (2) Tolypothrix
- (3) Anabaena
- (4) Chlorella

Ans: (3)

[2003]

Q948. Grey spots of oat are caused by deficiency of

- (1) Zn
- (2) Fe
- (3) Mn
- (4) Cu

Ans: (3)

[2003]

Q949. Boron in green plants assists in

- (1) acting as enzyme cofactor
- (2) sugar transport
- (3) photosynthesis
- (4) activation of enzymes

Ans: (2)

[2004]

Q950. The major portion of the dry weight of plants comprises of

- (1) Calcium, magnesium and sulphur
- (2) Carbon, hydrogen and oxygen
- (3) Carbon, nitrogen and hydrogen
- (4) Nitrogen, phosphorus and potassium

Ans: (2)

[2005]

Q951. Which one of the following pairs is wrongly matched?

- (1) Textile - amylase
- (2) Alcohol - nitrogenase
- (3) Detergents - lipase
- (4) Fruit juice - pectinase

Ans: (2)

[2007]

Q952. Manganese is required in:

- (1) chlorophyll synthesis
- (2) plant cell wall formation
- (3) nucleic acid synthesis
- (4) photolysis of water during photosynthesis

Ans: (4)

[2007]

Q953. Nitrogen fixation in root nodules of *Alnus* is brought about by:

- (1) *Frankia*
- (2) *Bradyrhizobium*
- (3) *Azorhizobium*
- (4) *Clostridium*

Ans: (1)

[2008]

Q954. Which one of the following elements is not an essential micronutrient for plant growth?

- (1) Ca
- (2) Zn
- (3) Mn
- (4) Cu

Ans: (1)

[2009]

Q955. A plant requires magnesium for

- (1) cell wall development
- (2) protein synthesis
- (3) holding cells together.
- (4) chlorophyll synthesis

Ans: (4)

[2009]

Q956. A prokaryotic autotrophic nitrogen fixing symbiont is found in:

- (1) *Cicer*
- (2) *Alnus*
- (3) *Pisum*
- (4) *Cycas*

Ans: (4)

[2009]

Q957.

Ans: (4)

[2010]

Q958. Which one of the following is not a micronutrient?

- (1) Zinc
- (2) Molybdenum
- (3) Boron
- (4) Magnesium

Ans: (4)

[2010]

Q959. An element playing important role in nitrogen fixation is:

- (1) Manganese
- (2) Molybdenum
- (3) Zinc
- (4) Copper

Ans: (2)

Q960. Which of the following is a symbiotic nitrogen fixer?

- (1) Azolla
- (2) Azotobacter
- (3) Glomus
- (4) Frankia

Ans: (4)

[2011]

Q961. Which one of the following is essential for photolysis of water?

- (1) Copper
- (2) Manganese
- (3) Boron
- (4) Zinc

Ans: (2)

[2011]

Q962. Which one of the following is not an essential mineral element for plants while the remaining three are?

- (1) Cadmium
- (2) Iron
- (3) Phosphorus
- (4) Manganese

Ans: (1)

[2011]

Q963. The function of leg haemoglobin in the root nodules of legumes is:

- (1) nodule differentiation
- (2) inhibition of nitrogenase activity
- (3) expression of nif gene
- (4) oxygen removal

Ans: (4)

[2011]

Q964. Nitrifying bacteria:

- (1) convert proteins into ammonia
- (2) oxidize ammonia to nitrates
- (3) reduce nitrates to free nitrogen
- (4) convert free nitrogen to nitrogen compounds

Ans: (2)

[2011M]

Q965. Which one of the following elements in plants is not remobilised?

- (1) Potassium
- (2) Phosphorus
- (3) Sulphur
- (4) Calcium

Ans: (4)

[2011M]

Q966. Read the following four statements (A-D). (A) Both, photophosphorylation and oxidative phosphorylation involve uphill transport of protons across the membrane. (B) In dicot stems, a new cambium originates from cells of pericycle at the time of secondary growth. (C) Stamens in flowers of *Gloriosa* and *Petunia* are polyandrous. (D) Symbiotic nitrogen-fixers occur in freeliving state also in soil. How many of the above statements are correct?

- (1) Four
- (2) Two
- (3) One
- (4) Three

Ans: (1)

[2012]

Q967. For its activity, carboxypeptidase requires

- (1) niacin
- (2) zinc
- (3) copper
- (4) iron

Ans: (2)

[2012]

Q968. Which one of the following is wrong statement

- (1) Phosphorus is a constituent of cell membranes, certain nucleic acids and cell proteins.
- (2) Anabaena and Nostoc are capable of fixing nitrogen in free living state also.
- (3) Nitrosomonas and Nitrobacter are chemoautotrophs.
- (4) Root nodule forming nitrogen fixers live as aerobes under free-living conditions.

Ans: (1)

Q969. Which one of the following is correctly matched?

- (1) Potassium - Readily immobilisation
- (2) Passive transport of nutrients - ATP
- (3) Bakane of rice seedlings - F. Skoog
- (4) Apoplast - Plasmodesmata

Ans: (1)

[2012M]

Q970. Best defined function of Manganese in green plants is:

- (1) Nitrogen fixation
- (2) Photolysis of water
- (3) Water absorption
- (4) Calvin cycle

Ans: (2)

[2012M]

Q971. Carbon dioxide joins the photosynthetic pathway in

- (1) Light reaction
- (2) PS I

- (3) Dark reaction
 - (4) PS II
- Ans: (3)

[2012M]

Q972. Which of the following elements is a constituent of biotin?

- (1) Calcium
- (2) Sulphur
- (3) Phosphorus
- (4) Magnesium

Ans: (2)

[NEET 2013]

Q973. Which two distinct microbial processes are responsible for the release of fixed nitrogen as dinitrogen gas (N_2) to the atmosphere?

- (1) Decomposition of organic nitrogen, and conversion of dinitrogen to ammonium compounds
- (2) Anaerobic ammonium oxidation, and denitrification
- (3) Enteric fermentation in cattle, and nitrogen fixation by Rhizobium in root nodules of legumes
- (4) Aerobic nitrate oxidation, and nitrite reduction

Ans: (2)

[NEET Kar. 2013]

Q974. The first stable product of fixation of atmospheric nitrogen in leguminous plants is:

- (1) Glutamate
- (2) Ammonia
- (3)
- (4)

Ans: (2)

[NEET Kar. 2013]

Q975. For its action, nitrogenase requires

- (1) high input of energy
- (2) Mn^{2+}
- (3) super oxygen radicals
- (4) light

Ans: (1)

[1988]

Q976. Greatest producers of organic matter are

- (1) plants of the land area
- (2) crop plants
- (3) phytoplankton of oceans
- (4) forests

Ans: (3)

[1988]

Q977. In C_4 plants, Calvin cycle operates in

- (1) Grana of mesophyll chloroplasts
- (2) Stroma of bundle sheath chloroplasts
- (3) Stroma of mesophyll chloroplasts
- (4) Grana of bundle sheath chloroplasts

Ans: (2)

[1988]

Q978. The substrate for photorespiration is

- (1) Serine
- (2) Phosphoglyceric acid
- (3) Glycine
- (4) Glycolate

Ans: (4)

[1989]

Q979. The size of chlorophyll molecule is

- (1) Head $15 \times 15 \text{ \AA}$, tail 20 \AA
- (2) Head $15 \times 15 \text{ \AA}$, tail 25 \AA
- (3) Head $10 \times 12 \text{ \AA}$, tail 25 \AA
- (4) Head $20 \times 20 \text{ \AA}$, tail 25 \AA

Ans: (1)

[1989]

Q980. $NADP^+$ is reduced to NADPH in

- (1) Calvin cycle
- (2) PS I
- (3) Noncyclic photophosphorylation
- (4) PS II

Ans: (3)

[1989]

Q981. Dark reactions of photosynthesis occur in

- (1) Stroma outside photosynthetic lamellae
- (2) Granal thylakoid membranes
- (3) Periplastidial space
- (4) Stromal lamella membranes

Ans: (1)

[1989]

Q982. Photosynthetic pigments found in the chloroplasts occur in

- (1) matrix
- (2) thylakoid membranes
- (3) chloroplast envelope
- (4) plastoglobules

Ans: (2)

[1990]

Q983. The first carbon dioxide acceptor in C_4 -plants is

- (1) Oxalo-acetic acid
- (2) Phosphoenol-pyruvate
- (3) Phosphoglyceric acid
- (4) Ribulose 1, 5-diphosphate

Ans: (2)

[1990, 92]

Q984. Kranz anatomy is typical of

- (1) C_2 plants
- (2) C_4 plants
- (3) CAM plants
- (4) C_3 plants

Ans: (2)

[1991]

Q985. A very efficient converter of solar energy with net productivity of 2-4 kg/m² or more is the crop of

- (1) rice
- (2) wheat
- (3) bajra

(4) sugarcane

Ans: (4)

[1991]

Q986. The enzyme that catalyses carbon dioxide fixation in C_4 plants is

(1) Carbonic anhydrase

(2) RuBP carboxylase

(3) Carboxydismutase

(4) PEP carboxylase

Ans: (4)

[1991]

Q987. Formation of ATP in photosynthesis and respiration is an oxidation process which utilises the energy from

(1) Electrons

(2) Cytochromes

(3) Carbon dioxide

(4) Ferredoxin

Ans: (1)

[1991]

Q988. Ferredoxin is a constituent of

(1) Hill reaction

(2) PS I

(3) P_680

(4) PS II

Ans: (2)

[1991]

Q989. During monsoon, the rice crop of eastern states of India shows lesser yield due to limiting factor of

(1) temperature

(2) CO_2

(3) water

(4) light

Ans: (4)

[1992]

Q990. Which technique has helped in investigation of Calvin cycle?

- (1) Radioactive isotope technique
- (2) X-ray crystallography
- (3) Intermittent light
- (4) X-ray technique

Ans: (1)

[1992]

Q991. Which one is a C₄-plant?

- (1) Potato
- (2) Papaya
- (3) Maize/Corn
- (4) Pea

Ans: (3)

[1992]

Q992. Translocation of carbohydrate nutrients usually occurs in the form of

- (1) Starch
- (2) Glucose
- (3) Sucrose
- (4) Maltose

Ans: (3)

[1992]

Q993. Chlorophyll a occurs in

- (1) all oxygen liberating autotrophs
- (2) all photosynthetic autotrophs
- (3) all plants except fungi
- (4) in all higher plants

Ans: (1)

[1992]

Q994. All types of plastids possess essentially the same structure because they

- (1) occur in aerial parts
- (2) perform the same function
- (3) can transform from one form to another

(4) store food materials like starch, fat and protein

Ans: (3)

[1992]

Q995. Photosystem II occurs in

(1) Grana

(2) Stroma

(3) Mitochondrial surface

(4) Cytochrome

Ans: (1)

[1993]

Q996. Nine-tenth of all photosynthesis of world (85-90%) is carried out by

(1) chlorophyll containing ferns of the forest

(2) large trees with millions of branches and leaves

(3) scientists in the laboratories

(4) algae of the ocean

Ans: (4)

[1993, 95, 96, 99]

Q997. C₄-cycle was discovered by

(1) Hill

(2) Hatch and Slack

(3) Arnon

(4) Calvin

Ans: (2)

[1993]

Q998. A photosynthesising plant is releasing 18O more than the normal. The plant must have been supplied with

(1) CO₂ with 18O

(2) O₃

(3) C₆H₁₂O₆ with 18O

(4) H₂O with 18O

Ans: (4)

[1993]

Q999. Maximum solar energy is trapped by

- (1) growing algae in tanks
- (2) planting trees
- (3) growing grasses
- (4) cultivating crops

Ans: (1)

[1994]

Q1000. The carbon dioxide acceptor in Calvin cycle/ C_3 -plants is

- (1) Phosphoglyceric acid (PGA)
- (2) Phospho-enol pyruvate (PEP)
- (3) Ribulose monophosphate (RMP)
- (4) Ribulose 1, 5-diphosphate (RuBP)

Ans: (4)

[1994]

Q1001. The principle of limiting factors was proposed by

- (1) Arnol
- (2) Blackman
- (3) Liebig
- (4) Hill

Ans: (2)

[1994]

Q1002. Photorespiration is favoured by

- (1) low temperature and high O_2
- (2) high O_2 and low CO_2
- (3) low O_2 and high CO_2
- (4) low light and high O_2

Ans: (2)

[1994]

Q1003. The specific characteristic of C_4 -plants is

- (1) kranz anatomy
- (2) bulliform cells
- (3) parallel veins configuration
- (4) isobilateral leaf

Ans: (1)

[1995]

Q1004. Which one occurs both during cyclic and noncyclic modes

of photophosphorylation?

- (1) Release of O_2
- (2) Involvement of both PS I and PS II
- (3) Formation of NADPH
- (4) Formation of ATP

Ans: (4)

[1996]

Q1005. Pigment acting as a reaction centre during photosynthesis is

- (1) P_{700}
- (2) Carotene
- (3) Cytochrome
- (4) Phytochrome

Ans: (1)

[1996]

Q1006. Protochlorophyll differs from chlorophyll in lacking

- (1) 4 hydrogen atoms in one of its pyrrole rings
- (2) 2 hydrogen atoms in one of its pyrrole rings
- (3) 4 hydrogen atoms in two of its pyrrole rings
- (4) 2 hydrogen atoms in two of its pyrrole rings

Ans: (2)

[1996, 97]

Q1007. NADPH is generated through

- (1) anaerobic respiration
- (2) photosystem I
- (3) glycolysis
- (4) photosystem II

Ans: (2)

[1996, 2004, 05]

Q1008. Which one of the following is represented by Calvin cycle?

- (1) Photophosphorylation
- (2) Reductive carboxylation
- (3) Oxidative phosphorylation.
- (4) Oxidative carboxylation

Ans: (2)

[1996]

Q1009. Photosynthetically active radiation is represented by the range of wavelength of

- (1) 500-600 nm
- (2) 340-450 nm
- (3) 400-950 nm
- (4) 400-700 nm

Ans: (4)

[1997]

Q1010. Chlorophyll 'a' molecule at its carbon atom 3 of the Pyrrole ring II has one of the following

- (1) carboxyl group
- (2) aldehyde group
- (3) magnesium.
- (4) methyl group

Ans: (4)

[1998]

Q1011. How many turns of Calvin cycle yield one molecule of glucose?

- (1) Six
- (2) Eight
- (3) Four
- (4) Two

Ans: (1)

[1998]

Q1012. The first step of photosynthesis is

- (1) attachment of CO_2 to 5 carbon sugar
- (2) excitation of electron of chlorophyll by a photon of light
- (3) ionisation of water
- (4) formation of ATP

Ans: (2)

[1999]

Q1013. The enzyme which fixes CO_2 in C_4 plants is

- (1) Reductase

- (2) Hydrogenase
- (3) RuBP carboxylase
- (4) PEP carboxylase

Ans: (4)

[2000]

Q1014. Which enzyme is most abundantly found on earth?

- (1) Nitrogenase
- (2) Catalase
- (3) Invertase
- (4) Rubisco

Ans: (4)

[2000]

Q1015. Which one of the following statements about cytochrome P-450 is wrong?

- (1) It is a coloured cell
- (2) It contains iron
- (3) It has an important role in metabolism
- (4) It is an enzyme involved in oxidation reaction

Ans: (2)

[1996, 2000]

Q1016. Cytochrome is

- (1) Glycoprotein
- (2) Metallo - Flavo protein
- (3) Lipid
- (4) Fe-containing porphyrin pigment

Ans: (4)

[2000]

Q1017. Which pigment system is inactivated in red drop?

- (1) PS -II
- (2) PS -I and PS -II
- (3) None of these
- (4) PS-I

Ans: (1)

[2000]

Q1018. Which pair is wrong?

- (1) Calvin cycle – PGA
- (2) C_3 – Maize
- (3) Hatch and Slack Pathway – Oxalo acetic Acid
- (4) C_4 – Kranz anatomy

Ans: (2)

[2001]

Q1019. Photochemical reactions in the chloroplast are directly involved in

- (1) Synthesis of glucose and starch
- (2) Formation of phosphoglyceric acid
- (3) Photolysis of water and phosphorylation of ADP to ATP
- (4) Fixation of carbon dioxide

Ans: (3)

[2001]

Q1020. Fixation of one CO_2 molecule through Calvin cycle requires

- (1) 3ATP and 2NADPH₂
- (2) 1 ATP and 2NADPH₂
- (3) 2ATP and 1NADPH₂
- (4) 2ATP and 2NADPH₂

Ans: (1)

[2001]

Q1021. Which element is located at the centre of the porphyrin ring in chlorophyll?

- (1) Magnesium
- (2) Manganese
- (3) Potassium
- (4) Calcium

Ans: (1)

[2002]

Q1022. In sugarcane plant $14CO_2$ is fixed in malic acid, in which the enzyme that fixes CO_2 is

- (1) Phosphoenol pyruvic acid carboxylase
- (2) fructose phosphatase
- (3) ribulose phosphate kinase

(4) ribulose biphosphate carboxylase

Ans: (1)

[2002]

Q1023. Stomata of CAM plants

(1) open during the day and close at night

(2) never open

(3) open during the night and close during the day

(4) are always open

Ans: (3)

[2003]

Q1024. Which of the following absorb light energy for photosynthesis?

(1)

(2) Chlorophyll

(3) RuBP

(4) Water molecule

Ans: (2)

[2003]

Q1025. In photosynthesis energy from light reaction to dark reaction is transferred in the form of

(1) RuDP

(2) ADP

(3) Chlorophyll

(4) ATP

Ans: (4)

[2003]

Q1026. As compared to a **C3** – plant, how many additional molecules of ATP are needed for net production of one molecule of hexose sugar by **C4** – plants:

(1) twelve

(2) two

(3) zero

(4) six

Ans: (1)

[2003]

Q1027. Plants adapted to low light intensity have

- (1) more extended root system
- (2) larger photosynthetic unit size than the sun plants
- (3) leaves modified to spines
- (4) higher rate of CO_2 fixation than the sun plants

Ans: (2)

[2003]

Q1028. In C_3 plants, the first stable product of photosynthesis during the dark reaction is

- (1) 3-phosphoglyceric acid
- (2) Malic acid
- (3) Phosphoglyceraldehyde
- (4) Oxaloacetic acid

Ans: (1)

[2004]

Q1029. Which one of the following is wrong in relation to photorespiration?

- (1) It occurs in daytime only
- (2) It is a characteristic of C_3 plants
- (3) It is a characteristic of C_4 plants
- (4) It occurs in chloroplasts

Ans: (3)

[2004]

Q1030. Which fractions of the visible spectrum of solar radiations are primarily absorbed by carotenoids of the higher plants?

- (1) Green and red
- (2) Violet and blue
- (3) Red and violet
- (4) Blue and green

Ans: (2)

[2005]

Q1031. The first acceptor of electrons from an excited chlorophyll molecule of photosystem II is

- (1) quinone
- (2) iron-sulphur protein

- (3) cytochrome
 - (4) ferredoxin
- Ans: (1)

[2005]

Q1032. During photorespiration, the oxygen consuming reaction(s) occur in

- (1) stroma of chloroplasts
 - (2) stroma of chloroplasts and peroxisomes
 - (3) stroma of chloroplasts and mitochondria
 - (4) grana of chloroplasts and peroxisomes
- Ans: (2)

[2005]

Q1033. In photosystem-1 the first electron acceptor is

- (1) An iron-sulphur protein
 - (2) Cytochrome
 - (3) Ferredoxin
 - (4) Plastocyanin
- Ans: (1)

[2006]

Q1034. Photosynthesis in C_4 plants is relatively less limited by atmospheric CO_2 levels because:

- (1) Four carbon acids are the primary initial C_3 fixation products.
 - (2) Effective pumping of CO_2 into bundle sheath cells.
 - (3) The primary fixation of CO_2 is mediated via PEP carboxylase.
 - (4) Rubisco in C_4 plants has higher affinity for CO_2 .
- Ans: (3)

[2006]

Q1035. Chlorophyll in chloroplasts is located in:

- (1) stroma
 - (2) grana
 - (3) both grana and stroma
 - (4) pyrenoid
- Ans: (2)

[2007]

Q1036. In leaves of C_4 plants malic acid synthesis during CO_2

fixation occurs in

- (1) bundle sheath
- (2) epidermal cells
- (3) guard cells
- (4) mesophyll cells

Ans: (4)

[2007]

Q1037. Electrons from excited chlorophyll molecule of photosystem II are accepted first by:

- (1) Quinone
- (2) Cytochrome-b
- (3) Ferredoxin
- (4) Cytochrome-f

Ans: (1)

[2007]

Q1038. The **C₄** plants are photosynthetically more efficient than **C₃** plants because:

- (1) the **C₂** efflux is not prevented
- (2) the **C₂** compensation point is more
- (3) they have more chloroplasts
- (4) **C₂** generated during photorespiration is trapped and recycled through PEP carboxylase

Ans: (1)

Q1039. The wavelength of light absorbed by Pr form of phytochrome is

- (1) 620 nm
- (2) 680 nm
- (3) 640 nm
- (4) 720 nm

Ans: (2)

[2008]

Q1040. In the leaves of **C₄** plants, malic acid formation during **C₂** fixation occurs in the cells of

- (1) epidermis

- (2) bundle sheath
- (3) mesophyll
- (4) phloem

Ans: (3)

[2008]

Q1041. Photoperiodism was first characterised in:

- (1) tomato
- (2) tobacco
- (3) cotton
- (4) potato

Ans: (2)

[2008]

Q1042. PGA as the first CO_2 fixation product was discovered in photosynthesis of:

- (1) Angiosperm
- (2) Bryophyte
- (3) Alga
- (4) Gymnosperm

Ans: (3)

[2009]

Q1043. Cyclic photophosphorylation results in the formation of

- (1) ATP
- (2) ATP and NADPH
- (3) NADPH
- (4) ATP, NADPH and O_2

Ans: (1)

[2009]

Q1044. Oxygenic photosynthesis occurs in:

- (1) Chlorobium
- (2) Oscillatoria
- (3) Chromatium
- (4) Rhodospirillum

Ans: (2)

[2010]

Q1045. Importance of day length in flowering of plants was first

shown in

- (1) cotton
- (2) lemna
- (3) petunia
- (4) tobacco

Ans: (4)

[2010]

Q1046. The correct sequence of cell organelles during photorespiration is:

- (1) Chloroplast-peroxisome-mitochondria
- (2) Chloroplast-Golgi bodies-mitochondria
- (3) Chloroplast-vacuole-peroxisome
- (4) Chloroplast-Rough Endoplasmic reticulum, Dictyosomes

Ans: (1)

[2010]

Q1047. A process that makes important difference between **C3** and **C4** plants is:

- (1) Photosynthesis
- (2) Transpiration
- (3) Photorespiration
- (4) Glycolysis

Ans: (3)

[2011]

Q1048. CAM helps the plants in:

- (1) disease resistance
- (2) conserving water
- (3) reproduction
- (4) secondary growth

Ans: (2)

[2011]

Q1049. Of the total incident solar radiation the proportion of PAR is:

- (1) less than 50%
- (2) about 70%
- (3) more than 80%

(4) about 60%

Ans: (1)

[2012]

Q1050. C₄ plants are more efficient in photosynthesis than C₃

plants due to:

(1) Presence of thin cuticle

(2) Higher leaf area

(3) Lower rate of photorespiration

(4) Presence of larger number of chloroplasts in the leaf cells

Ans: (3)

[2012]

Q1051. R.Q. is

(1) $\frac{C\text{O}_2}{O_2}$

(2) C/N

(3) $\frac{O_2}{C\text{O}_2}$

(4) N/C

Ans: (1)

[NEET 2013]

Q1052. NADP⁺ is reduced to NADPH in

(1) glycolysis

(2) HMP

(3) EMP

(4) Calvin Cycle

Ans: (2)

[NEET Kar. 2013]

Q1053. Incomplete oxidation of glucose into pyruvic acid with several intermediate steps is known as

(1) HMS-pathway

(2) TCA-pathway

(3) Krebs cycle

(4) glycolysis

Ans: (4)

[1988]

Q1054. Bundle sheath cells

(1) Lack RuBisCo

- (2) Are rich in RuBisCo
- (3) Lack both RuBisCo and PEP carboxylase
- (4) Are rich in PEP carboxylase

Ans: (2)

[1988]

Q1055. Pigment-containing membranous extensions in some cyanobacteria are:

- (1) Chromatophores
- (2) Basal bodies
- (3) Heterocysts
- (4) Pneumatophores

Ans: (1)

[1988]

Q1056. Out of 36 ATP molecules produced per glucose molecule during respiration

- (1) 2 during glycolysis and 34 during Krebs cycle
- (2) 2 are produced outside glycolysis and 34 during respiratory chain
- (3) All are formed inside mitochondria
- (4) 2 are produced outside mitochondria and 34 inside mitochondria

Ans: (4)

[1990]

Q1057. Connecting link between glycolysis and Krebs cycle is/before entering Krebs cycle pyruvate is changed to

- (1) pyruvate
- (2) oxaloacetate
- (3) acetyl CoA
- (4) PEP

Ans: (3)

[1990]

Q1058. EMP can produce a total of

- (1) 24 ATP
- (2) 6 ATP
- (3) 38 ATP
- (4) 8 ATP

Ans: (4)

[1990]

Q1059. R.Q. is ratio of

- (1) oxygen consumed to water produced
- (2) CO_2 produced to substrate consumed
- (3) oxygen consumed to CO_2 produced
- (4) CO_2 produced to O_2 consumed

Ans: (4)

[1990, 92, 97]

Q1060. End product of glycolysis is

- (1) glucose 1-phosphate
- (2) acetyl CoA
- (3) fructose 1-phosphate
- (4) pyruvic Acid

Ans: (4)

[1991]

Q1061. Apparatus to measure rate of respiration and R.Q. is

- (1) Respirometer
- (2) Auxanometer
- (3) Manometer
- (4) Potometer

Ans: (1)

[1992]

Q1062. When one glucose molecule is completely oxidised, it changes

- (1) 30 ADP molecules into 30 ATP molecules
- (2) 36 ADP molecules into 36 ATP molecules
- (3) 32 ADP molecules into 32 ATP molecules
- (4) 38 ADP molecules into 38 ATP molecules

Ans: (1)

[1992]

Q1063. Oxidative phosphorylation is production of

- (1) ATP in respiration
- (2) ATP in photosynthesis
- (3) NADH in respiration
- (4) NADPH in photosynthesis

Ans: (4)

Q1064. At a temperature above 35°C

- (1) there is no fixed pattern
- (2) rate of photosynthesis will decline earlier than that of respiration
- (3) both decline simultaneously
- (4) rate of respiration will decline earlier than that of photosynthesis

Ans: (2)

[1992]

Q1065. End products of aerobic respiration are

- (1) carbon dioxide, water and energy
- (2) sugar and oxygen
- (3) carbon dioxide and energy
- (4) water and energy

Ans: (1)

[1992]

Q1066. Maximum amount of energy/ATP is liberated on oxidation of

- (1) starch
- (2) fats
- (3) vitamins
- (4) proteins

Ans: (2)

[1992]

Q1067. Life without air would be

- (1) impossible
- (2) reductional
- (3) anaerobic
- (4) free from oxidative damage

Ans: (3)

[1993]

Q1068. Out of 38 ATP molecules produced per glucose, 32 ATP molecules are formed from NADH/FADH₂ in

- (1) oxidative decarboxylation
- (2) respiratory chain

- (3) EMP
 - (4) Krebs cycle
- Ans: (2)

[1993]

Q1069. End product of citric acid/Krebs cycle is

- (1) pyruvic acid
- (2) citric acid
- (3) $\text{CO}_2 + \text{H}_2\text{O}$
- (4) lactic acid

Ans: (3)

[1993]

Q1070. Terminal cytochrome of respiratory chain which donates electrons to oxygen is

- (1) Cyt. a_1
- (2) Cyt. b
- (3) Cyt. a_3
- (4) Cyt. c

Ans: (3)

[1994]

Q1071. Which of the following is essential for conversion of pyruvic acid into acetyl Co-A?

- (1) TPP
- (2) LAA
- (3) All of these
- (4) NAD

Ans: (3)

[1994]

Q1072. In animal cells, the first stage of glucose breakdown is

- (1) oxidative phosphorylation
- (2) Krebs cycle
- (3) E.T.C.
- (4) glycolysis

Ans: (4)

[1994, 97]

Q1073. Respiratory substrate yielding maximum number of ATP

molecule is

- (1) amylose
- (2) ketogenic amino acids
- (3) glycogen
- (4) glucose

Ans: (4)

[1994]

Q1074. Fermentation products of Yeast are

- (1) methyl alcohol + Water
- (2) $H_2O + CO_2$
- (3) ethyl alcohol + CO_2
- (4) methyl alcohol + CO_2

Ans: (3)

[1994]

Q1075. ATP is injected in cyanide poisoning because it is

- (1) $Na^+ - K^+$ pump operates at the cell membranes
- (2) necessary for cellular functions
- (3) ATP breaks down cyanide
- (4) necessary for $Na^+ - K^+$ pump

Ans: (2)

[1995]

Q1076. Fermentation is anaerobic production of

- (1) ethers and acetones
- (2) protein and acetic acid
- (3) alcohol and lipoproteins
- (4) alcohol, lactic acid or similar compounds

Ans: (4)

[1995]

Q1077. Krebs cycle occurs in

- (1) chloroplasts
- (2) mitochondria
- (3) ribosomes
- (4) cytoplasm

Ans: (2)

[1996]

Q1078. The enzyme hexokinase which catalyses glucose to glucose-6-phosphate in glycolysis is inhibited by glucose-6-phosphate. This is an example of

- (1) feedback allosteric inhibition
- (2) competitive inhibition
- (3) positive feedback.
- (4) non-competitive inhibition

Ans: (1)

[1996]

Q1079. Oxidative phosphorylation involves simultaneous oxidation and phosphorylation to finally form

- (1) DPN
- (2) pyruvate
- (3) ATP
- (4) NADP

Ans: (3)

[1996]

Q1080. Respiratory quotient (R.Q.) for fatty acid is

- (1) 1
- (2) > 1
- (3) 0
- (4) < 1

Ans: (4)

[1996]

Q1081. Net gain of ATP molecules during aerobic respiration is

- (1) 40 molecules
- (2) 36 molecules
- (3) 48 molecules
- (4) 38 molecules

Ans: (2)

[1997]

Q1082. Maximum usable energy per mol of glucose metabolised will be generated during

- (1) fermentation into ethanol by yeast
- (2) aerobic respiration by germinating seeds

(3) glycolysis in the skeletal muscle of a sprinter performing a hundred metre dash

(4) production of methanol by enteric bacteria

Ans: (2)

[1997]

Q1083. Site of respiration in bacteria is

(1) mesosome

(2) episome

(3) microsome

(4) ribosome

Ans: (1)

[1997]

Q1084. In Krebs cycle FAD participates as electron acceptor during the conversion of

(1) succinic acid to Fumaric acid

(2) succinyl CoA to Succinic acid

(3) fumaric acid to Malic acid

(4) alfa keto glutarate to Succinyl CoA

Ans: (1)

[1999]

Q1085. The mechanism of ATP formation both in chloroplast and mitochondria is explained by

(1) chemiosmotic theory of Mitchell

(2) relay pump theory of Godlewski

(3) Cholondy-Went's Model

(4) Munch's pressure/ mass flow model

Ans: (1)

[1999]

Q1086. In which one of the following do the two names refer to one and the same thing?

(1) Tricarboxylic acid cycle and citric acid cycle

(2) Tricarboxylic acid cycle and urea cycle

(3) Citric acid cycle and Calvin cycle

(4) Krebs cycle and Calvin cycle

Ans: (1)

[2002]

Q1087.

Ans: (1)

[2003]

Q1088. During anaerobic digestion of organic waste, such as in producing biogas, which one of the following is left undegraded?

- (1) Lignin
- (2) Cellulose
- (3) Hemi-cellulose
- (4) Lipids

Ans: (1)

[2003]

Q1089. In alcoholic fermentation

- (1) triose phosphate is the electron donor while pyruvic acid is the electron acceptor
- (2) oxygen is the electron acceptor
- (3) there is no electron donor
- (4) triose phosphate is the electron donor while acetaldehyde is the electron acceptor

Ans: (4)

Q1090. How many ATP molecules are produced by aerobic oxidation of one molecule of glucose?

- (1) 38
- (2) 2
- (3) 34
- (4) 4

Ans: (1)

[2003]

Q1091. The bacterium (*Clostridium botulinum*) that causes botulism is

- (1) an obligate aerobe
- (2) an obligate anaerobe
- (3) a facultative anaerobe
- (4) an facultative aerobe

Ans: (2)

[2004]

Q1092. How many ATP molecules could maximally be generated from one molecule of glucose, if the complete oxidation of one mole of glucose to CO_2 and H_2O yields 686 kcal and the useful chemical energy available in the high energy phosphate bond of one mole of ATP is 12 kcal?

- (1) One
- (2) Thirty
- (3) Two
- (4) Fifty -seven

Ans: (4)

[2005]

Q1093. During the stage in the complete oxidation of glucose are the greatest number of ATP molecules formed from ADP

- (1) conversion of pyruvic acid to acetyl Co-A
- (2) glycolysis
- (3) electron transport chain
- (4) krebs cycle

Ans: (3)

[2005]

Q1094. Chemiosmotic theory of ATP synthesis in the chloroplasts and mitochondria is based on:

- (1) accumulation of K ions
- (2) membrane potential
- (3) proton gradient
- (4) accumulation of Na ions

Ans: (3)

[2006]

Q1095. In glycolysis, during oxidation electrons are removed by

- (1) NAD^+
- (2) ATP
- (3) molecular oxygen
- (4) glyceraldehyde-3-phosphate

Ans: (1)

[2006]

Q1096. The chemiosmotic coupling hypothesis of oxidative phosphorylation proposes that adenosine triphosphate (ATP) is formed because:

- (1) a proton gradient forms across the inner membrane
- (2) high energy bonds are formed in mitochondrial proteins
- (3) there is a change in the permeability of the inner mitochondrial membrane toward adenosine diphosphate (ADP)
- (4) ADP is pumped out of the matrix into the intermembrane space

Ans: (1)

[2007]

Q1097. In germinating seeds fatty acids are degraded exclusively in the

- (1) peroxisomes
- (2) proplastids
- (3) mitochondria
- (4) glyoxysomes

Ans: (4)

[2007]

Q1098. The energy-releasing process in which the substrate is oxidised without an external electron acceptor is called

- (1) aerobic respiration
- (2) fermentation
- (3) glycolysis
- (4) photorespiration

Ans: (3)

[2008]

Q1099. The overall goal of glycolysis, krebs cycle and the electron transport system is the formation of

- (1) nucleic acids
- (2) ATP in one large oxidation reaction
- (3) ATP in small stepwise units.
- (4) sugars

Ans: (3)

[2008]

Q1100. All enzymes of TCA cycle are located in the mitochondrial matrix except one which is located in inner mitochondrial membranes in eukaryotes and in cytosol in prokaryotes. This enzyme is

- (1) succinate dehydrogenase
- (2) isocitrate dehydrogenase
- (3) lactate dehydrogenase.
- (4) malate dehydrogenase

Ans: (1)

[2008]

Q1101. Movement of leaves of Sensitive Plant, *Mimosa pudica* are due to

- (1) hydrotropism
- (2) thersonasty
- (3) chemonasty
- (4) seismonasty

Ans: (4)

[2009]

Q1102.

Ans: (2)

[2010]

Q1103. Which of the metabolites is common to respiration mediated breakdown of fats, carbohydrates and proteins?

- (1) Acetyl CoA
- (2) Fructose 1, 6 - bisphosphate
- (3) Glucose - 6 - phosphate
- (4) Pyruvic acid

Ans: (1)

[NEET 2013]

Q1104. The energy - releasing metabolic process in which substrate is oxidised without an external electron acceptor is called:

- (1) aerobic respiration
- (2) glycolysis

(3) photorespiration

(4) fermentation

Ans: (4)

Q1105. Aerobic respiratory pathway is appropriately termed:

(1) anabolic

(2) parabolic

(3) catabolic

(4) amphibolic

Ans: (4)

[1988, 99]

Q1106. Leaves of many grasses are capable of folding and unfolding because they

(1) have specialised bulliform cells

(2) are very thin

(3) have parallel vascular bundles

(4) are isobilateral

Ans: (1)

[1988]

Q1107. Hormone primarily connected with cell division is

(1) cytokinin/Zeatin

(2) IAA

(3) gibberellic acid

(4) NAA

Ans: (1)

[1988, 97]

Q1108. Cut or excised leaves remain green for long if induced to root or dipped in

(1) auxins

(2) gibberellins

(3) ethylene

(4) cytokinins

Ans: (4)

[1988]

Q1109. Gibberellins promote

(1) leaf fall

- (2) seed germination
- (3) root elongation
- (4) seed dormancy

Ans: (2)

[1988, 1991]

Q1110. Phytochrome is involved in

- (1) photoperiodism
- (2) phototropism
- (3) geotropism
- (4) photorespiration

Ans: (1)

[1989]

Q1111. Which of the following movement is not related to auxin level

- (1) Nyctinastic leaf movements
- (2) Bending of shoot towards light
- (3) Movement of sunflower head tracking the sun
- (4) Movement of root towards soil

Ans: (1)

Q1112. Which of the following hormones can replace vernalisation?

- (1) Gibberellins
- (2) Auxin
- (3) Ethylene
- (4) Cytokinin

Ans: (1)

[1989]

Q1113. Leaf fall can be prevented with the help of

- (1) florigen
- (2) abscisic acid
- (3) cytokinins
- (4) auxins

Ans: (3)

Q1114. Mowing grass lawn facilitates better maintenance

because

- (1) removal of apical dominance
- (2) wounding stimulates regeneration
- (3) removal of apical dominance and promotion of lateral meristem
- (4) removal of apical dominance and stimulation of intercalary meristem

Ans: (4)

[1989]

Q1115. Which one increases in the absence of light?

- (1) Elongation of internodes
- (2) Uptake of minerals
- (3) Ascent of sap
- (4) Uptake of water

Ans: (1)

[1990]

Q1116. Tendrils exhibit/twining of tendrils is due to

- (1) heliotropism
- (2) thigmotropism
- (3) diageotropism
- (4) seismonasty

Ans: (2)

[1990]

Q1117. Highest auxin concentration occurs

- (1) at base of plant organs
- (2) in growing tips
- (3) in xylem and phloem
- (4) in leaves

Ans: (2)

[1990]

Q1118. Phytohormones are:

- (1) hormones regulating growth from seed to adulthood
- (2) chemicals regulating flowering
- (3) regulators synthesised by plants and influencing physiological processes
- (4) chemicals regulating secondary growth

Ans: (3)

[1990]

Q1119. Abscisic acid controls

- (1) shoot elongation
- (2) cell division
- (3) cell elongation and wall formation
- (4) leaf fall and dormancy

Ans: (4)

[1990]

Q1120. Phototropic and geotropic movements are linked to:

- (1) auxin
- (2) gibberellins
- (3) cytokinins
- (4) enzymes

Ans: (1)

[1991]

Q1121. Cytokinins

- (1) help retain chlorophyll
- (2) promote abscission
- (3) inhibit protoplasmic streaming
- (4) influence water movement

Ans: (1)

[1991, 95]

Q1122. Which is employed for artificial ripening of banana fruits?

- (1) Ethylene
- (2) Auxin
- (3) Cytokinin
- (4) Coumarin

Ans: (1)

[1991]

Q1123. Abscisic acid causes

- (1) leaf expansion
- (2) stomatal closure
- (3) root elongation
- (4) stem elongation

Ans: (2)

[1991]

Q1124. The hormone responsible for apical dominance is

- (1) ABA
- (2) IAA
- (3) florigen
- (4) GA

Ans: (2)

[1992, 2000]

Q1125. A chemical believed to be involved in flowering is

- (1) florigen
- (2) gibberellin
- (3) IBA
- (4) kinetin

Ans: (1)

[1992]

Q1126. Dwarfness can be controlled by treating the plant with

- (1) auxin
- (2) cytokinin
- (3) antigibberellin
- (4) gibberellic acid

Ans: (4)

Q1127. Flowering dependent on cold treatment is

- (1) cryoscopy
- (2) cryotherapy
- (3) vernalisation
- (4) cryogenics

Ans: (3)

[1992]

Q1128. Bananas can be prevented from over-ripening by

- (1) dipping in ascorbic acid solution
- (2) maintaining them at room temperature
- (3) storing in a freezer
- (4) refrigeration

Ans: (1)

[1992]

Q1129. Apical dominance is caused by

- (1) gibberellin in lateral buds
- (2) abscisic acid in lateral bud
- (3) auxin in shoot tip
- (4) cytokinin in leaf tip

Ans: (3)

[1992]

Q1130. In short day plants, flowering is induced by

- (1) long night
- (2) photoperiod less than 12 hours
- (3) short photoperiod and interrupted long night
- (4) photoperiod below a critical length and uninterrupted long night

Ans: (4)

[1992, 2002]

Q1131. Movement of auxin is

- (1) acropetal
- (2) centripetal
- (3) both B and C
- (4) basipetal

Ans: (3)

[1993]

Q1132. Removal of apical bud results in

- (1) death of plant
- (2) formation of new apical bud
- (3) formation of lateral branching
- (4) elongation of main stem

Ans: (3)

[1993]

Q1133. The regulator which retards ageing/ senescence of plant parts is:

- (1) gibberellin
- (2) cytokinin
- (3) abscisic acid
- (4) auxin

Ans: (2)

[1993]

Q1134. What is a stress hormone? or The hormone produced during adverse environmental conditions is

- (1) ethylene
- (2) benzyl aminopurine
- (3) abscisic acid
- (4) dichlorophenoxy acetic acid

Ans: (3)

[1993, 2000]

Q1135. Klinostat is employed in the study of

- (1) photosynthesis
- (2) osmosis
- (3) respiration
- (4) growth movements

Ans: (4)

[1994]

Q1136. If a tree, flowers thrice in a year (Oct., Jan. and July) in Northern India, it is said to be

- (1) photo and thermosensitive
- (2) photosensitive but thermoinsensitive
- (3) photo and thermoinsensitive
- (4) thermosensitive but photoinsensitive

Ans: (3)

[1995, 97, 2002]

Q1137. What will be the effect on phytochrome in a plant subjected to continuous red light?

- (1) Phytochrome synthesis increases
- (2) Level of phytochrome decreases
- (3) Destruction and synthesis of phytochrome remain in equilibrium.
- (4) Phytochrome is destroyed

Ans: (2)

[1995]

Q1138. Thigmotropic movement is best shown by

- (1) movement in roots
- (2) movement in tendrils

- (3) movement in Mimosa pudica
- (4) insectivorous plants

Ans: (2)

Q1139. Ethylene gas is used for

- (1) ripening of fruits
- (2) growth of plants
- (3) stopping the leaf abscission
- (4) delaying fruit's abscission

Ans: (1)

[1997]

Q1140. The pigment, that absorbs red and far red light in plants, is

- (1) phytochrome
- (2) xanthophyll
- (3) carotene
- (4) cytochrome

Ans: (1)

[1997]

Q1141. The method that renders the seed coat permeable to water so that embryo expansion is not physically retarded is

- (1) denudation
- (2) vernalization
- (3) scarification
- (4) stratification

Ans: (3)

[1998]

Q1142. ABA is involved in

- (1) shoot elongation
- (2) dormancy of seeds
- (3) increased cell division
- (4) root elongation

Ans: (2)

[1998]

Q1143. The response of different organisms to environmental

rhythms of light and darkness is called

- (1) phototropism
- (2) phototaxis
- (3) vernalization.
- (4) photoperiodism

Ans: (4)

[1998]

Q1144. A plant hormone used for inducing morphogenesis in plant tissue culture is

- (1) ethylene
- (2) gibberellins
- (3) abscisic acid.
- (4) cytokinins

Ans: (4)

[1999]

Q1145. Which combination of gases is suitable for fruit ripening?

- (1) 80% CO_2 and 20% O_2
- (2) 80% CO_2 and 20% CH_4
- (3) 80% C_2H_4 and 20% CO_2
- (4) 80% CH_4 and 20% CO_2

Ans: (3)

[2000]

Q1146. Which of the following prevents fall of fruits?

- (1) Ethylene
- (2) GA3
- (3) Zeatin
- (4) NAA

Ans: (4)

[2000, 03]

Q1147. Hormone responsible for senescence

- (1) GA
- (2) ABA
- (3) cytokinin
- (4) auxin

Ans: (2)

[2000, 02]

Q1148. What breaks bud dormancy of potato tuber?

- (1) ABA
- (2) Gibberellin
- (3) Zeatin
- (4) IAA

Ans: (2)

Q1149. Geocarpic fruits are produced by

- (1) ground nut
- (2) onion
- (3) carrot
- (4) watermelon

Ans: (1)

[2001]

Q1150. What reason will you assign for coconut milk used in tissue culture?

- (1) Auxins
- (2) Gibberellins
- (3) Ethylene
- (4) Cytokinins

Ans: (4)

[2001]

Q1151. Differentiation of shoot is controlled by

- (1) high cytokinin: auxin ratio
- (2) high gibberellin: cytokinin ratio
- (3) high gibberellin: auxin ratio
- (4) high auxin: cytokinin ratio

Ans: (1)

[2001]

Q1152. Seed dormancy is due to the

- (1) IAA
- (2) ethylene
- (3) starch
- (4) abscisic acid

Ans: (4)

[2001]

Q1153. Proteinaceous pigment which control activities concerned with light

- (1) anthocyanin
- (2) phytochrome
- (3) carotenoids
- (4) chlorophyll

Ans: (2)

[2001]

Q1154. Glycolate induces opening of stomata in

- (1) high CO₂ conc.
- (2) presence of oxygen
- (3) absence of CO₂
- (4) low CO₂ conc.

Ans: (4)

[2002]

Q1155. Which one is a long-day plant?

- (1) *Mirabilis jalapa*
- (2) Tobacco
- (3) Spinach
- (4) *Glycine max*

Ans: (3)

[2003]

Q1156. An enzyme that can stimulate germination of barley seeds is

- (1) invertase
- (2) lipase
- (3) α -amylase
- (4) protease

Ans: (3)

[2003]

Q1157. Cell elongation in internodal regions of the green plants takes place due to

- (1) gibberellins

(2) indole acetic acid

(3) ethylene

(4) cytokinins

Ans: (1)

[2004]

Q1158. One set of a plant was grown at 12 hours day and 12 hours night period cycles and it flowered while in the other set night phase was interrupted by flash of light and it did not produce flower. Under which one of the following categories will you place this plant?

(1) Day neutral

(2) Long day

(3) Short day

(4) Darkness neutral

Ans: (3)

[2004]

Q1159. Anthesis is a phenomenon which refers to

(1) development of anther

(2) reception of pollen by stigma

(3) opening of flower bud

(4) formation of pollen

Ans: (3)

[2004]

Q1160. Plants deficient of element zinc, show its effect on the biosynthesis of plant growth hormone

(1) cytokinin

(2) abscisic acid

(3) ethylene

(4) auxin

Ans: (4)

[2006]

Q1161. “Foolish seedling” disease of rice led to the discovery of

(1) IAA

(2) ABA

(3) GA

(4) 2, 4-D

Ans: (3)

[2006]

Q1162. Which one of the following pairs, is not correctly matched?

- (1) IAA - Cell wall elongation
- (2) Gibberellic acid - Leaf fall
- (3) Abscissic acid - Stomatal closure.
- (4) Cytokinin - Cell wall elongation

Ans: (2)

[2006]

Q1163. Opening of floral buds into flowers, is a type of

- (1) autonomic movement of growth
- (2) autonomic movement of variation
- (3) autonomic movement of locomotion.
- (4) paratonic movement of growth

Ans: (1)

[2007]

Q1164. How does pruning help in making the hedge dense?

- (1) It releases wound hormones
- (2) It frees axillary buds from apical dominance
- (3) It induces the differentiation of new shoots from the rootstock
- (4) The apical shoot grows faster after pruning

Ans: (2)

[2007]

Q1165. Treatment of seed at low temperature under moist conditions to break its dormancy is called

- (1) stratification
- (2) vernalization
- (3) scarification
- (4) chelation

Ans: (1)

[2007]

Q1166. Coiling of garden pea tendrils around any support is an example of:

- (1) thigmotropism
- (2) thigmotaxis
- (3) thermotaxis
- (4) thigmonasty

Ans: (1)

[2008]

Q1167. Phototropic curvature is the result of uneven distribution of:

- (1) cytokinins
- (2) gibberellin
- (3) auxin
- (4) phytochrome

Ans: (3)

[2009]

Q1168. Which one of the following acids is a derivative of carotenoids?

- (1) Abscisic acid
- (2) Indole-3 -acetic acid
- (3) Indole butyric acid
- (4) Gibberellic acid

Ans: (1)

[2009]

Q1169. One of the synthetic auxin is:

- (1) IBA
- (2) IAA
- (3) NAA
- (4) GA

Ans: (3)

[2010]

Q1170. Senescence as an active developmental cellular process in the growth and functioning of a flowering plant, is indicated in

- (1) annual plants
- (2) vessels and tracheid differentiation
- (3) floral parts
- (4) leaf abscission

Ans: (4)

[2010]

Q1171. During seed germination its stored food is mobilized

- (1) Gibberellin
- (2) Cytokinin
- (3) Ethylene
- (4) ABA

Ans: (1)

[2012M]

Q1172. Which one of the following is not used for ex-situ plant conservation?

- (1) Botanical Gardens
- (2) Seed banks
- (3) Field gene banks
- (4) Shifting cultivation

Ans: (4)

[2012M]

Q1173. Vernalization stimulates flowering in

- (1) carrot
- (2) zamikand
- (3) ginger
- (4) turmeric

Ans: (1)

[2012M]

Q1174. Which one of the following generally acts as an antagonist to gibberellins?

- (1) ABA
- (2) Zeatin
- (3) IAA
- (4) Ethylene

Ans: (1)

[NEET 2013]

Q1175. Through their effect on plant growth regulators, what do the temperature and light control in the plants?

- (1) Closure of stomata

- (2) Apical dominance
- (3) Fruit elongation
- (4) Flowering

Ans: (4)

[NEET 2013]

Q1176. Secretin stimulates production of

- (1) Bile
- (2) Saliva
- (3) Pancreatic juice
- (4) Gastric juice

Ans: (3)

[NEET Kar. 2013]

Q1177. Release of pancreatic juice is stimulated by

- (1) Trypsinogen
- (2) Enterokinase
- (3) Secretin
- (4) Cholecystokinin

Ans: (4)

[1988]

Q1178. Wharton's duct is associated with

- (1) Submaxillary salivary gland
- (2) Sublingual salivary duct
- (3) Brunner's glands
- (4) Parotid salivary gland

Ans: (1)

[1988]

Q1179. Duct leading from parotid gland and opening into vestibule is

- (1) Wolffian duct
- (2) Haversian duct
- (3) Infra-orbital duct
- (4) Stensen's duct

Ans: (4)

[1989]

Q1180. The pineapple which under natural conditions is difficult to

blossom has been made to produce fruits throughout the year by application of

- (1) Phenyl acetic acid
- (2) IAA, IBA
- (3) Cytokinin
- (4) NAA, 2, 4-D

Ans: (4)

[1990]

Q1181. Pancreas produces

- (1) two digestive enzymes and one hormone
- (2) three digestive enzymes and one hormone
- (3) three digestive enzymes and no hormone
- (4) three types of digestive enzymes and two hormones

Ans: (4)

[1990]

Q1182. Where is protein digestion accomplished?

- (1) Rectum
- (2) Stomach
- (3) Duodenum
- (4) Ileum

Ans: (4)

[1990]

Q1183. Pancreatic juice and hormones of pancreas are produced by

- (1) Statement is wrong
- (2) Same cells
- (3) Different cells
- (4) Same cells at different times

Ans: (3)

[1990]

Q1184. In man the zymogen or chief cells are mainly found in

- (1) Duodenum
- (2) Cardiac part of stomach
- (3) Fundic part of stomach
- (4) Pyloric part of stomach

Ans: (3)

Q1185. Emulsification of fat is carried out by

- (1) HCl
- (2) Bile pigments
- (3) Pancreatic juice
- (4) Bile salts

Ans: (4)

[1991]

Q1186. Which of the following pair is characterised by swollen lips, thick pigmented skin of hands and legs and irritability?

- (1) Nicotinamide – Pellagra
- (2) Thiamine – Beri-Beri
- (3) Iodine – Goitre
- (4) Protein – Kwashiorkor

Ans: (1)

[1992]

Q1187. Most of the fat digestion occurs in

- (1) Duodenum
- (2) Rectum
- (3) Small intestine
- (4) Stomach

Ans: (3)

Q1188. Vitamin K is required for

- (1) change of fibrinogen to fibrin
- (2) change of prothrombin to thrombin
- (3) formation of thromboplastin
- (4) synthesis of prothrombin

Ans: (4)

[1993]

Q1189. Secretion of gastric juice is stopped by

- (1) Cholecystokinin
- (2) Gastrin
- (3) Enterogastrone
- (4) Pancreozymin

Ans: (3)

[1993]

Q1190. Brunner's glands occur in

- (1) mucosa of oesophagus
- (2) submucosa of duodenum
- (3) mucosa of ileum
- (4) submucosa of stomach

Ans: (2)

[1993]

Q1191. Calcium deficiency occurs in the absence of vitamin

- (1) E
- (2) D
- (3) B
- (4) C

Ans: (2)

[1993]

Q1192. Prolonged deficiency of nicotinic acid produces

- (1) Pellagra
- (2) Osteomalacia
- (3) Anaemia
- (4) Xerophthalmia

Ans: (1)

[1994]

Q1193. Inhibition of gastric and stimulation of gastric, pancreatic and bile secretions are controlled by hormones 1994]

- (1) Gastrin, enterogastrone, cholecystokinin and pancreozymin
- (2) Gastrin, secretin, enterokinin and cholecystokinin
- (3) Secretin, enterogastrone, gastrin and enterokinin
- (4) Enterogastrone, gastrin, pancreozymin and cholecystokinin

Ans: (4)

Q1194. Renin acts on

- (1) fat in intestine
- (2) milk changing casein into calcium paracaseinate at 7.2 – 8.2 pH
- (3) milk changing casein into calcium paracaseinate at 1 – 3 pH.
- (4) proteins in stomach

Ans: (3)

[1994]

Q1195. Kupffer's cells occur in

- (1) brain
- (2) spleen
- (3) liver
- (4) kidney

Ans: (3)

[1994]

Q1196. For persons suffering from high blood cholesterol, the physicians recommend

- (1) red meat with layers of fats
- (2) pure 'deshi ghee' or butter
- (3) vanaspati margarine
- (4) vegetable oil such as groundnut oil

Ans: (4)

[1995]

Q1197. A dental disease characterized by mottling of teeth is due to the presence of a certain chemical element in drinking water.

Which of the following is that element?

- (1) fluorine
- (2) mercury
- (3) boron
- (4) chlorine

Ans: (1)

Q1198. The haemorrhagic disease of new born is caused due to the deficiency of

- (1) vitamin B_{12}
- (2) vitamin A
- (3) vitamin K
- (4) vitamin B_1

Ans: (3)

[1995, 2002]

Q1199. The vitamin C or ascorbic acid prevents

- (1) scurvy
- (2) rickets
- (3) antibody synthesis
- (4) pellagra

Ans: (1)

[1995]

Q1200. The enzyme enterokinase helps in the conversion of

- (1) caesinogen into caesin
- (2) pepsinogen into pepsin
- (3) proteins into polypeptides
- (4) trypsinogen into trypsin

Ans: (4)

Q1201. The layer of cells that secrete enamel of tooth is

- (1) Odontoblast
- (2) Ameloblast
- (3) Dentoblast
- (4) Osteoblast

Ans: (2)

[1996]

Q1202. Which one of the following vitamins can be synthesized by bacteria inside the gut?

- (1) D
- (2) B₁
- (3) K
- (4) C

Ans: (3)

[1996]

Q1203. A person had to undergo a surgery in which a major portion of his pancreas was removed. Which of the following food constituents will he find especially difficult to digest?

- (1) Fats
- (2) Starch
- (3) Lactose sugar
- (4) Proteins

Ans: (1)

Q1204. Which one of the following is a matching pair of a substrate and its particular digestive enzyme?

- (1) Maltose — steapsin
- (2) Starch — maltase
- (3) Casein — chymotrypsin
- (4) Lactose — rennin

Ans: (2)

[1997]

Q1205. Which one of the following is a matching pair of a vitamin and the deficiency disease related with it?

- (1) Niacin — pellagra
- (2) Riboflavin — beri beri
- (3) Calciferol — scurvy
- (4) Thiamine — xerophthalmia

Ans: (1)

[1998]

Q1206. The daily dietary requirement of a moderately active adult individual is approximately

- (1) 1,000 k cal
- (2) 8,000 k cal
- (3) 2,500 k cal
- (4) 4,000 k cal

Ans: (3)

[1998]

Q1207. Which one of the following is a protein deficiency disease?

- (1) Kwashiorkor
- (2) Night blindness
- (3) Cirrhosis
- (4) Eczema

Ans: (1)

[1998]

Q1208. The contraction of gall bladder is due to

- (1) Secretin
- (2) Gastrin

- (3) Enterogastrone
 - (4) Cholecystokinin
- Ans: (4)

[1998]

Q1209. The hormone that stimulates the stomach to secrete gastric juice is

- (1) Renin
 - (2) Enterogastrone
 - (3) Gastrin
 - (4) Enterokinase
- Ans: (3)

[1998]

Q1210. One of the factors required for the maturation of erythrocytes is

- (1) Vitamin C
 - (2) Vitamin A
 - (3) Vitamin D
 - (4) Vitamin B₁₂
- Ans: (4)

[1999]

Q1211. An adolescent human below 17 years of age normally has dental formula as

- (1)
- (2)
- (3)
- (4)

Ans: (3)

[1999]

Q1212. The food having fully undergone mechanical and chemical digestion inside the stomach, is called

- (1) Amino acid
 - (2) Chyle
 - (3) Chyme
 - (4) Bolus
- Ans: (3)

[1999]

Q1213. Nutrients absorbed by the blood capillaries of intestinal villi first go into

- (1) aorta
- (2) liver through hepatic portal vein
- (3) posterior vena cava
- (4) hepatic artery

Ans: (2)

[1999]

Q1214. Which one of the following pairs is mismatched?

- (1) Vitamin K - Beri Beri
- (2) Vitamin C - Scurvy
- (3) Vitamin A - Xerophthalmia
- (4) Vitamin D - Rickets

Ans: (1)

[1999]

Q1215. Secretin and cholecystokinin are two hormones involved in digestion. They are secreted by

- (1) Oesophagus
- (2) Duodenum
- (3) Stomach
- (4) Ileum

Ans: (2)

[1999]

Q1216. Hydrolytic enzymes which act on low pH are called as

- (1) hydrolases
- (2) proteases
- (3) peroxidases
- (4) α -amylases

Ans: (1)

[2000]

Q1217. Which one is correctly matched?

- (1) Vitamin B — Calciferol
- (2) Vitamin E — Tocopherol
- (3) Vitamin A — Thiamine

(4) Vitamin D — Riboflavin

Ans: (2)

[2000]

Q1218. Which set is correct?

- (1) Bundle of His — Pace maker
- (2) Corpus callosum — Grafian follicle
- (3) Vitamin B_7 — Niacin
- (4) Sebum — Sweat

Ans: (1)

[2001]

Q1219. A person is eating boiled potato, which food component is found in it?

- (1) Starch which does not get digested
- (2) DNA which gets digested by pancreatic DNAase
- (3) Cellulose which is digested by intestinal cellulose
- (4) Lactose which is indigestible

Ans: (2)

[2001]

Q1220. A person deficient in the rhodopsin should be advised to take more of

- (1) Carrot and ripe papaya
- (2) Guava and ripe banana
- (3) Radish and potato
- (4) Apple and grapes

Ans: (1)

[2002]

Q1221. Which one of the following pairs is not correctly matched?

- (1) Vitamin B_1 - Beri-beri
- (2) Vitamin B_{12} - Pernicious anaemia
- (3) Vitamin B_3 - Pellagra
- (4) Vitamin B_6 - Loss of appetite

Ans: (4)

[2002]

Q1222. During prolonged fasting, in what sequence are the following organic compounds used up by the body?

- (1) First fats, next carbohydrates and lastly proteins
- (2) First proteins, next lipids and lastly carbohydrates
- (3) First carbohydrates, next proteins and lastly lipids
- (4) First carbohydrates, next fats and lastly proteins

Ans: (4)

[2003]

Q1223. Which one of the following pairs is not correctly matched?

- (1) Vitamin B₃ – Pellagra
- (2) Vitamin B₆ – Beri Beri
- (3) Vitamin B₁₂ – Pernicious anaemia
- (4) Vitamin C – Scurvy

Ans: (2)

[1994, 2003]

Q1224. Fluoride pollution mainly affects

- (1) heart
- (2) kidney
- (3) teeth
- (4) brain

Ans: (3)

[2003]

Q1225. Stool of a person is whitish grey coloured due to malfunction of which of the following organ?

- (1) Kidney
- (2) Pancreas
- (3) Liver
- (4) Spleen

Ans: (3)

[2004]

Q1226. A patient is generally advised to specially, consume more meat, lentils, milk and eggs in diet only when he suffers from

- (1) Rickets

- (2) Scurvy
- (3) Anemia
- (4) Kwashiorkor

Ans: (4)

Q1227. Which group of three of the following five statements (a-e) contain is all three correct statements regarding beri-beri?

- (1) a nutritional disorder in infants and young children when the diet is persistently deficient in essential protein;
- (2) a crippling disease prevalent among the native population of sub-Saharan Africa;
- (3) occurs in those countries where the staple diet is polished rice; (e) the symptoms are pain from neuritis, paralysis, muscle wasting, progressive oedema, mental deterioration and finally heart failure;
- (4) a deficiency disease caused by lack of thiamine (vitamin B₁)

Ans: (2)

[2004]

Q1228. The richest sources of vitamin B₁₂ are

- (1) Rice and hen's egg
- (2) Goat's liver and Spirulina
- (3) Carrot and chicken's breast
- (4) Chocolate and green gram

Ans: (2)

[2004]

Q1229. Which one of the following is the correct matching of a vitamin, its nature and its deficiency disease?

- (1) Vitamin A – Fat-soluble – Beri-beri
- (2) Vitamin A – Fat-soluble – Night blindness
- (3) Vitamin K – Water-soluble – Pellagra
- (4) Vitamin K – Fat-Soluble – Beri-beri

Ans: (2)

[2005]

Q1230. Duodenum has characteristic Brunner's gland which secrete two hormones called

- (1) Prolactin, parathormone

- (2) Kinase, estrogen
- (3) Estradiol, progesterone
- (4) Secretin, cholecystokinin

Ans: (4)

[2005]

Q1231. Which one of the following is a fat-soluble vitamin and its related deficiency disease?

- (1) Calciferol - Pellagra
- (2) Retinol - Xerophthalmia
- (3) Ascorbic acid - Scurvy.
- (4) Cobalamine - Beri-beri

Ans: (2)

Q1232. A person who is one along hunger strike and is surviving only on water, will have

- (1) less urea in his urine
- (2) less amino acids in his urine
- (3) more sodium in his urine.
- (4) more glucose in his blood

Ans: (1)

[2005]

Q1233. Angiotensinogen is a protein produced and secreted by

- (1) juxtaglomerular (JG) cells
- (2) endothelial cells (lining the blood vessels)
- (3) macula densa cells
- (4) liver cells

Ans: (4)

[2006]

Q1234. Secretin and cholecystokinin are digestive hormones. They are secreted in:

- (1) Ileum
- (2) Pyloric stomach
- (3) Oesophagus
- (4) Duodenum

Ans: (4)

[2007]

Q1235. Epithelial cells of the intestine involved in food absorption have on their surface:

- (1) zymogen granules
- (2) pinocytic vesicles
- (3) phagocytic vesicles
- (4) microvilli

Ans: (4)

[2007]

Q1236. A young infant may be feeding entirely on mother's milk which is white in colour but the stools which the infant passes out is quite yellowish. What is this yellow colour due to?

- (1) pancreatic juice poured into duodenum
- (2) bile pigments passed through bile juice
- (3) intestinal juice
- (4) undigested milk protein casein

Ans: (2)

[2008]

Q1237. When breast feeding is replaced by less nutritive food low in proteins and calories; the infants below the age of one year are likely to suffer from:

- (1) Pellagra
- (2) Rickets
- (3) Marasmus
- (4) Kwashiorkor

Ans: (3)

[2008]

Q1238. Modern detergents contain enzyme preparations of:

- (1) Thermoacidophiles
- (2) Acidophiles
- (3) Thermophiles
- (4) Alkaliphiles

Ans: (4)

[2008]

Q1239. Which one of the following is the correct matching of the

site of action on the given substrate, the enzyme acting upon it and the end product?

- (1) Small intestine: Proteins Amino acids
- (2) Duodenum: Triglycerides Monoglycerides
- (3) Stomach: Fats Micelles
- (4) Small intestine: Starch Disaccharide (Maltose)

Ans: (4)

[2009]

Q1240. What will happen if the secretion of parietal cells of gastric glands is blocked with an inhibitor?

- (1) In the absence of HCl secretion, inactive pepsinogen is not converted into the active enzyme pepsin
- (2) Gastric juice will be deficient in chymosin
- (3) Enterokinase will not be released from the duodenal mucosa and so trypsinogen is not converted to trypsin
- (4) Gastric juice will be deficient in pepsinogen

Ans: (1)

[2009]

Q1241. Which one of the following enzymes carries out the initial step in the digestion of milk in humans?

- (1) Lipase
- (2) Pepsin
- (3) Trypsin
- (4) Rennin

Ans: (4)

[2009]

Q1242. Two friends are eating together on a dining table. One of them suddenly starts coughing while swallowing some food. This coughing would have been due to improper movement of:

- (1) neck
- (2) epiglottis
- (3) tongue
- (4) diaphragm

Ans: (2)

[2009]

Q1243. If for some reason our goblet cells are non functional, this will adversely affect:

- (1) maturation of sperms
- (2) production of somatostatin
- (3) smooth movement of food down the intestine
- (4) secretion of sebum from the sebaceous glands

Ans: (3)

[2010]

Q1244. Which one of the following pairs of food components in humans reaches the stomach totally undigested?

- (1) Starch and cellulose
- (2) Starch and fat
- (3) Protein and starch
- (4) Fat and cellulose

Ans: (4)

[2011]

Q1245. Which one of the following statements is true regarding digestion and absorption of food in humans?

- (1) About 60% of starch is hydrolysed by salivary amylase in our mouth
- (2) Fructose and amino acids are absorbed through intestinal mucosa with the help of carrier ions like Na^+ .
- (3) Oxyntic cells in our stomach secrete the proenzyme pepsinogen.
- (4) Chylomicrons are small lipoprotein particles that are transported from intestine into blood capillaries.

Ans: (2)

[2011]

Q1246. Select the correct match of the digested products in humans given in column -I with their absorption site and mechanism in column-II

Column I	Column II
----------	-----------

- (1) Cholesterol, maltose Large intestine, active absorption
- (2) Fructose, Na^+ Small intestine, passive absorption
- (3) Glycine, glucose Small intestine, active absorption
- (4) Glycerol, fatty acids Duodenum, move as chylomicrons

Ans: (3)

[2011M]

Q1247. Where do certain symbiotic micro-organisms normally occur in human body?

- (1) Vermiform appendix and rectum
- (2) Caecum
- (3) Duodenum
- (4) Oral lining and tongue surface

Ans: (2)

Q1248. Anxiety and eating spicy food together in an otherwise normal human, may lead to

- (1) Diarrhoea
- (2) Indigestion
- (3) Vomiting
- (4) Jaundice

Ans: (2)

[2012]

Q1249.

Ans: (1)

[2012M]

Q1250. One of the constituents of the pancreatic juice while poured into the duodenum in humans, is:

- (1) trypsin
- (2) trypsinogen
- (3) enterokinase
- (4) chymotrypsin

Ans: (2)

[NEET 2013]

Q1251. Carbon dioxide is transported from tissues to respiratory surface by only

- (1) erythrocytes
- (2) plasma and erythrocytes
- (3) erythrocytes and leucocytes
- (4) plasma

Ans: (2)

[NEET Kar. 2013]

Q1252. The alveolar epithelium in the lungs is

- (1) ciliated columnar
- (2) nonciliated columnar
- (3) ciliated squamous
- (4) nonciliated squamous

Ans: (4)

[NEET Kar. 2013]

Q1253. Skin is an accessory organ of respiration in

- (1) rabbit
- (2) humans
- (3) lizard
- (4) frog

Ans: (4)

Q1254. Which enzymes are likely to act on the baked potatoes eaten by a man, starting from the mouth and as it moves down the alimentary canal?

- (1) Disaccharidase like maltase → lipases → nucleases
- (2) Salivary maltase → carboxypeptidase → trypsinogen
- (3) Salivary amylase → pancreatic amylase → disaccharidases
- (4) Pancreatic amylase → salivary amylase → lipases

Ans: (3)

[1990]

Q1255. A healthy person eats the following diet - 5 gm raw sugar, 4 gm albumin, 10 gm pure buffalo ghee adulterated with 2 gm vegetable ghee (hydrogenated vegetable oil) and 5 gm lignin. How many calories he is likely to get?

- (1) 164
- (2) 144
- (3) 112
- (4) 126

Ans: (2)

[1993]

Q1256. People living at sea level have around 5 million RBC per cubic millimeter of their blood whereas those living at an altitude

of 5400 metres have around 8 million. This is because at high altitude

- (1) people eat more nutritive food, therefore more RBCs are formed
- (2) atmospheric O_2 level is less and hence more RBCs are needed to absorb the required amount of O_2 to survive
- (3) people get pollution - free air to breathe and more oxygen is available
- (4) there is more UV radiation which enhances RBC production

Ans: (2)

[1994]

Q1257. The carbon dioxide is transported via blood to lungs as

- (1) in combination with haemoglobin only
- (2) dissolved in blood plasma
- (3) carbaminohaemoglobin and as carbonic acid
- (4) in the form of carbonic acid only

Ans: (3)

[1994]

Q1258. Although much CO_2 is carried in blood, yet blood does not become acidic, because

- (1) it combines with water to form which is neutralized by $NaCO_3$
- (2) it is absorbed by the leucocytes
- (3) it is continuously diffused through tissues and is not allowed to accumulate
- (4) blood buffers play an important role in CO_2 transport.

Ans: (4)

[1995]

Q1259. Air is breathed through

- (1) Nostrils — pharynx — larynx — trachea — bronchi — bronchioles — alveoli
- (2) Trachea — lungs — larynx — pharynx — alveoli
- (3) Nose — mouth — lungs
- (4) Nose — larynx — pharynx — bronchus — alveoli — bronchioles

Ans: (1)

[1995]

Q1260. Oxygen dissociation curve of haemoglobin is

- (1) Linear

- (2) Sigmoid
- (3) Hypobolic
- (4) Hyperbolic

Ans: (2)

[1995, 2006]

Q1261. Which one of the following organs in the human body is most affected due to shortage of oxygen?

- (1) kidney
- (2) intestine
- (3) brain
- (4) skin

Ans: (3)

[1996]

Q1262. The process of migration of chloride ions from plasma to RBC and of carbonate ions from RBC to plasma is

- (1) atomic shift
- (2) chloride shift
- (3) Na⁺ pump
- (4) ionic shift

Ans: (2)

Q1263. The exchange of gases in the alveoli of the lungs takes place by

- (1) active transport
- (2) simple diffusion
- (3) passive transport
- (4) osmosis

Ans: (2)

[1998]

Q1264. In alveoli of the lungs, the air at the site of gas exchange, is separated from the blood by

- (1) alveolar epithelium, capillary endothelium and tunica adventitia
- (2) alveolar epithelium only
- (3) alveolar epithelium, capillary endothelium, a thin layer of tunica media and tunica adventitia
- (4) alveolar epithelium and capillary endothelium

Ans: (4)

[1999]

Q1265. The quantity 1500 ml in the respiratory volumes of a normal human adult refers to

- (1) expiratory reserve volume
- (2) maximum air that can be breathed in and breathed out
- (3) total lung capacity
- (4) residual volume

Ans: (4)

[1999]

Q1266. What is vital capacity of our lungs?

- (1) Inspiratory reserve volume plus expiratory reserve volume
- (2) Inspiratory reserve volume plus tidal volume
- (3) Total lung capacity minus residual volume
- (4) Total lung capacity minus expiratory reserve volume

Ans: (3)

[2004]

Q1267. Intercostal muscles occur in

- (1) ribs
- (2) abdomen
- (3) diaphragm
- (4) thigh

Ans: (1)

[2004]

Q1268. Which one of the following mammalian cells is not capable of metabolising glucose to carbon-dioxide aerobically?

- (1) red blood cells
- (2) unstrained muscle cells
- (3) white blood
- (4) liver cells

Ans: (1)

[2007]

Q1269. Blood analysis of a patient reveals an unusually high quantity of carboxyhaemoglobin content. Which of the following conclusions is most likely to be correct? The patient has been

inhaling polluted air containing unusually high content of

- (1) carbon dioxide
- (2) carbon disulphide
- (3) carbon monoxide
- (4) chloroform

Ans: (3)

[1988]

Q1270. When CO_2 concentration in blood increases, breathing becomes

- (1) slow and deep
- (2) shallower and slow
- (3) faster and deeper
- (4) there is no effect on breathing

Ans: (3)

Q1271.

Ans: (4)

[2010]

Q1272. Which of the following are the correct statement for respiration in human

- (1) Workers in grinding and stone - breaking industries may suffer from lung fibrosis
- (2) Cigarette smoking may lead of inflammation of bronchi
- (3) About 90% of carbon dioxide (CO_2) is carried by haemoglobin as carbamino haemoglobin.
- (4) Neural signals from pneumotoxic centre in pons region of brain can increase the duration of inspiration

Ans: (1)

[2010]

Q1273. Which one of the following is a possibility for most of us in regard to breathing, by making a conscious effort?

- (1) One can consciously breathe in and breathe out by moving the diaphragm alone, without moving the ribs at all.
- (2) One can breathe out air totally without oxygen.
- (3) The lungs can be made fully empty by forcefully breathing out all air

from them

(4) One can breathe out air through eustachian tubes by closing both the nose and the mouth.

Ans: (4)

[2011M]

Q1274. Which two of the following changes (a–d) usually tend to occur in the plain dwellers when they move to high altitudes (3,500 m or more)? (i) Increase in red blood cell size (ii) Increase in red blood cell production (iii) Increased breathing rate (iv) Increase in thrombocyte count Changes occurring are:

- (1) (i) and (iv)
- (2) (ii) and (iii)
- (3) (i) and (ii)
- (4) (iii) and (iv)

Ans: (2)

[2012]

Q1275. Listed below are four respiratory capacities (i–iv) and four jumbled respiratory volumes of a normal human adult:

Respiratory capacities (i) Residual volume 2500mL (ii) Vital capacity 3500mL (iii) Inspiratory reserve volume 1200mL (iv) Inspiratory capacity 4500mL Which one of the following is the correct matching of two capacities and volumes?

- (1) (iv) 3500 mL, (i) 1200mL
- (2) (ii) 2500mL, (iii) 4500mL
- (3) (i) 4500 mL, (ii) 3500mL
- (4) (iii) 1200mL, (iv) 2500mL

Ans: (1)

Q1276. Child death may occur in the marriage between

- (1) Rh– man and Rh– woman
- (2) Rh+ man and Rh+ woman
- (3) Rh– man and Rh+ woman
- (4) Rh+ man and Rh– woman

Ans: (4)

Q1277. Breakdown product of haemoglobin is

- (1) Biliverdin
- (2) Bilirubin
- (3) Calcium
- (4) Iron

Ans: (4)

[NEET Kar. 2013]

Q1278. RBC do not occur in

- (1) camel
- (2) frog
- (3) cockroach
- (4) cow

Ans: (3)

[1988]

Q1279. Which one of the following is one of the paths followed by air/O₂ during respiration in an adult male *Periplaneta americana* as it enters the animal body?

- (1) Mouth, bronchial tube, trachea, oxygen enters cells
- (2) Hypopharynx, mouth, pharynx, trachea, tissues
- (3) Spiracles in prothorax, tracheoles, trachea, oxygen diffuses into cells
- (4) Spiracle in metathorax, trachea, tracheoles, oxygen diffuses into cells

Ans: (4)

[1988]

Q1280.

Ans: (4)

Q1281. Tricuspid valve is found in between

- (1) left ventricle and left auricle
- (2) sinus venosus and right auricle
- (3) ventricle and aorta
- (4) right auricle and right ventricle

Ans: (4)

[1988]

Q1282. Which one engulfs pathogens rapidly?

- (1) Basophils

- (2) Acidophils
- (3) Neutrophils
- (4) Monocytes

Ans: (3)

[1988]

Q1283. Haemophilia is

- (1) both a and b
- (2) royal disease
- (3) mosquito having haemocoel
- (4) faulty blood clotting

Ans: (1)

[1989]

Q1284. Sickle cell anaemia is characterised by

- (1) Mental retardation
- (2) Leukemia
- (3) Hemolytic anaemia
- (4) Polycythemia

Ans: (3)

[1989]

Q1285. Presence of RBC in urine is

- (1) Hematuria
- (2) Alkaptonuria
- (3) Proteinuria
- (4) Ureathiasis

Ans: (1)

[1989]

Q1286. Splenic artery arises from

- (1) posterior mesenteric artery
- (2) anterior mesenteric artery
- (3) intestinal artery
- (4) coeliac artery

Ans: (4)

[1989]

Q1287. A vein possesses a large lumen because

- (1) tunica interna, tunica media and tunica externa are thin

- (2) tunica media and tunica externa form a single coat
- (3) tunica media is a thin coat
- (4) tunica interna and tunica media form a single coat

Ans: (3)

[1989]

Q1288. Arteries carry oxygenated blood except

- (1) Hepatic
- (2) Pulmonary
- (3) Systemic
- (4) Cardiac

Ans: (2)

[1989]

Q1289. Removal of calcium from freshly collected blood would

- (1) cause immediate clotting
- (2) cause delayed clotting
- (3) prevent destruction of haemoglobin
- (4) prevent clotting

Ans: (4)

[1990]

Q1290. A person with blood group A requires blood. The blood group which can be given is

- (1) A and O
- (2) A and B
- (3) A, B, AB and O
- (4) A and AB

Ans: (1)

[1990]

Q1291. Cells formed in bone marrow include

- (1) Leucocytes
- (2) RBC
- (3) Lymphocytes
- (4) RBC and leucocytes

Ans: (4)

[1991]

Q1292. The genotype of B-group father of an O-group child is

- (1) IAIB
- (2) IOIO
- (3) IOIB
- (4) IBIB

Ans: (3)

[1991]

Q1293. Blood group AB has

- (1) neither antigen nor antibody
- (2) no antigen
- (3) both antigen and antibody
- (4) no antibody

Ans: (4)

[1991]

Q1294. Carbonic anhydrase occurs in

- (1) RBC
- (2) Lymphocytes
- (3) Leucocytes
- (4) Blood plasma

Ans: (1)

[1992]

Q1295. Wall of blood capillary is formed of

- (1) endothelial cells
- (2) haemocytes
- (3) oxyntic cells
- (4) parietal cells

Ans: (1)

[1993]

Q1296. Pacemaker of heart is

- (1) SA node
- (2) AV node
- (3) Purkinje fibres
- (4) Bundle of His

Ans: (1)

Q1297. Closed circulatory system occurs in

- (1) mosquito

- (2) cockroach
- (3) housefly
- (4) tadpole/fish

Ans: (4)

[1993]

Q1298. 'Dup' sound is produced during closure of

- (1) Tricuspid valve
- (2) Semilunar valves
- (3) Both b and c
- (4) Bicuspid valve

Ans: (2)

[1994]

Q1299. Blood capillaries are made of

- (1) endothelium and connective tissue
- (2) endothelium, connective tissue and muscle fibres
- (3) endothelium only
- (4) endothelium and muscle fibres

Ans: (3)

[1994]

Q1300. A man with blood group A marries AB blood group woman. Which type of progeny indicate that the man is not homozygous?

- (1) A
- (2) AB
- (3) O
- (4) B

Ans: (4)

[1994]

Q1301. The blood cancer is known as

- (1) haemolysis
- (2) leukaemia
- (3) haemophilia
- (4) thrombosis

Ans: (2)

[1994]

Q1302. The correct route through which pulsemaking impulse travels in the heart is

- (1) SA node → Purkinje fibre → bundle of His → AV node → heart muscles
- (2) AV node → bundle of His → SA node Purkinje fibres → heart muscles
- (3) SA node → AV node → bundle of His → Purkinje fibre → heart muscles
- (4) AV node → SA node → Purkinje fibres → bundle of His → heart muscles

Ans: (3)

[1995]

Q1303. Antigens are present

- (1) inside the cytoplasm
- (2) inside the nucleus
- (3) on nuclear membrane
- (4) on cell surface

Ans: (4)

[1995]

Q1304. The lymph serves to

- (1) return the interstitial fluid to the blood
- (2) transport oxygen to the brain
- (3) return the WBCs and RBCs to the lymph nodes
- (4) transport carbon dioxide to the lungs

Ans: (1)

[1995]

Q1305. A child of blood group O cannot have parents of blood groups

- (1) B and B
- (2) AB and AB/O
- (3) O and O
- (4) A and B

Ans: (2)

[1995]

Q1306. In mammals, histamine is secreted by

- (1) mast cells
- (2) histiocytes
- (3) fibroblasts
- (4) lymphocytes

Ans: (1)

[1996]

Q1307. The life span of human W.B.C. is approximately

- (1) between 2 to 3 months
- (2) less than 10 days
- (3) more than 4 months
- (4) between 20 to 30 days

Ans: (2)

[1996]

Q1308. Which of the following is not a granulocyte?

- (1) Basophil
- (2) Lymphocyte
- (3) Neutrophil
- (4) Eosinophil

Ans: (2)

[1997]

Q1309. Which one of the following statements about blood constituents and transport of respiratory gases is most accurate?

- (1) RBCs as well as WBCs transport both oxygen and CO_2
- (2) RBCs transport oxygen whereas WBCs transport CO_2
- (3) RBCs as well as plasma transport both oxygen and CO_2
- (4) RBCs transport oxygen whereas plasma transports only CO_2

Ans: (3)

[1997]

Q1310. Which one of the following vertebrate organs receives the oxygenated blood only?

- (1) Liver
- (2) Gill
- (3) Spleen
- (4) Lung

Ans: (3)

[1998]

Q1311. What is true about leucocytes?

- (1) These are enucleated

- (2) Their sudden fall in number is indication of blood cancer
- (3) These can squeeze out through the capillary walls
- (4) These are produced in thymus

Ans: (3)

[1998]

Q1312. Pulmonary artery differ from pulmonary vein in having

- (1) large lumen
- (2) no endothelium
- (3) thick muscular walls
- (4) valves

Ans: (3)

[1998]

Q1313. Contraction of the ventricle in the heart begins by the command from

- (1) Purkinje fibres
- (2) Chordae tendinae
- (3) A. V. node
- (4) S.A. node

Ans: (4)

[1999]

Q1314. With respect to the ABO group, there are four major blood types because this blood group is determined by

- (1) three alleles, of which two are codominant and the third is recessive
- (2) three alleles, all of which are recessive
- (3) three alleles, all of which are codominant
- (4) three alleles, of which, two are recessive and the third is dominant

Ans: (1)

[2000]

Q1315. An adult human with average health has systolic and diastolic pressures as

- (1) 50 mm Hg and 80 mm Hg
- (2) 70 mm Hg and 120 mm Hg
- (3) 80 mm Hg and 80 mm Hg
- (4) 120 mm Hg and 80 mm Hg

Ans: (4)

[2000]

Q1316. Which of the following statements is true for lymph?

- (1) RBCs, WBCs and plasma
- (2) WBC and serum
- (3) RBCs proteins and platelets
- (4) all components of blood except RBCs and some proteins

Ans: (4)

[2000]

Q1317. Impulse of heart beat originates from

- (1) Vagus nerve
- (2) S. A. node
- (3) Cardiac nerve
- (4) A. V. node

Ans: (2)

[2001]

Q1318. What is correct for blood group 'O'?

- (1) Antigen and antibody both absent
- (2) No antigens but both a and b antibodies are present
- (3) A and B antigens and a, b antibodies
- (4) A antigen and b antibody

Ans: (2)

[2001]

Q1319. Sickle cell anaemia is induced by

- (1) change of amino acid in both a- and b-chain of haemoglobin
- (2) change of amino acid in a-chain of haemoglobin
- (3) change of amino acid in either a- or b-chain of haemoglobin
- (4) change of amino acid in b-chain of haemoglobin

Ans: (4)

[2002]

Q1320. As the age advances, there is a gradual thinning of hair in human males. This is mainly because of lowered

- (1) synthesis of glycogen
- (2) blood supply
- (3) availability of energy
- (4) synthesis of proteins

Ans: (4)

[2002]

Q1321. The cardiac pacemaker in a patient fails to function normally. The doctors find that an artificial pacemaker is to be grafted in him. It is likely that it will be grafted at the site of

- (1) Sinuatrial node
- (2) Atrioventricular bundle
- (3) Atrioventricular node
- (4) Purkinje system

Ans: (1)

[2003]

Q1322. You are required to draw blood from a patient and to keep it in a test tube for analysis of blood corpuscles and plasma. You are also provided with the following four types of test tubes. Which of them will you not use for the purpose?

- (1) Test tube containing heparin
- (2) Test tube containing calcium bicarbonate
- (3) Test tube containing sodium oxalate
- (4) Chilled test tube

Ans: (2)

[2003]

Q1323. In the ABO system of blood groups, if both antigens are present but no antibody, the blood group of the individual would be

- (1) AB
- (2) B
- (3) A
- (4) O

Ans: (1)

[2004]

Q1324. Bundle of His is a network of

- (1) muscle fibres found only in the ventricle wall
- (2) nerve fibres found throughout the heart
- (3) nerve fibres distributed in ventricles

(4) muscle fibres distributed throughout the heart walls

Ans: (1)

[2004]

Q1325. Systemic heart refers to

(1) left auricle and left ventricle in higher vertebrates

(2) the two ventricles together in humans

(3) entire heart in lower vertebrates

(4) the heart that contracts under stimulation from nervous system

Ans: (1)

Q1326. Examination of blood of a person suspected of having anemia, shows large, immature, nucleated erythrocytes without haemoglobin. Supplementing his diet with which of the following, is likely to alleviate his symptoms?

(1) Iron compounds

(2) Folic acid and cobalamine

(3) Thiamine

(4) Riboflavin

Ans: (2)

[2005]

Q1327. The majority of carbon dioxide produced by our body cells is transported to the lungs

(1) attached to hemoglobin

(2) as bicarbonates

(3) dissolved in the blood

(4) as carbonates

Ans: (2)

[2006]

Q1328. Which one of the following has an open circulatory system?

(1) Octopus

(2) Periplaneta

(3) Pheretima

(4) Hirudinaria

Ans: (2)

[2006]

Q1329. Which one of the following statements is incorrect?

- (1) The principle of countercurrent flow facilitates efficient respiration in gills of fishes
- (2) The presence of non-respiratory air sacs, increases the efficiency of respiration in birds
- (3) The residual area in lungs slightly decreases the efficiency of respiration in mammals
- (4) In insects, circulating body fluids serve to distribute oxygen to tissues

Ans: (4)

Q1330. Damage to thymus in a child may lead to:

- (1) loss of antibody mediated immunity
- (2) a reduction in haemoglobin content of blood
- (3) loss of cell mediated immunity
- (4) a reduction in stem cell production

Ans: (3)

[2006]

Q1331. In humans, blood passes from the post caval to the diastolic right atrium of heart due to.

- (1) stimulation of the sino auricular node
- (2) pushing open of the venous valves
- (3) pressure difference between the post caval and atrium
- (4) suction pull

Ans: (4)

[2007]

Q1332. The most active phagocytic white blood cells are:

- (1) eosinophils and lymphocytes
- (2) neutrophils and eosinophils
- (3) neutrophils and monocytes
- (4) lymphocytes and macrophages

Ans: (3)

[2007]

Q1333. Which type of white blood cells are concerned with the release of histamine and the natural anti- coagulant heparin?

- (1) Eosinophils

- (2) Neutrophils
- (3) Monocytes
- (4) Basophils

Ans: (4)

[2008]

Q1334. What is true about Nereis, scorpion, cockroach and silver fish?

- (1) They all belong to the same phylum
- (2) They all possess dorsal heart
- (3) They all have jointed paired appendages
- (4) None of them is aquatic

Ans: (2)

[2008]

Q1335. A drop of each of the following, is placed separately on four slides. Which of them will not coagulate?

- (1) Whole blood from pulmonary vein
- (2) Blood serum
- (3) Blood plasma.
- (4) Sample from the thoracic duct of lymphatic system

Ans: (2)

[2008]

Q1336. Globulins contained in human blood plasma are primarily involved in:

- (1) clotting of blood
- (2) osmotic balance of body fluids
- (3) defence mechanisms of body
- (4) oxygen transport in the blood

Ans: (3)

[2009]

Q1337. In a standard ECG which one of the following alphabets is the correct representation of the respective activity of the human heart?

- (1) P - depolarisation of the atria
- (2) S - start of systole
- (3) R - repolarisation of ventricles

(4) T - end of diastole

Ans: (1)

[2009]

Q1338. There is no DNA in:

(1) hair root

(2) mature RBCs

(3) an enucleated ovum

(4) a mature spermatozoan

Ans: (2)

[2009]

Q1339. Compared to blood our lymph has:

(1) more RBCs and less WBCs

(2) plasma without proteins

(3) no plasma

(4) more WBCs and no RBCs

Ans: (4)

Q1340. The most popularly known blood grouping is the ABO grouping. It is named ABO and not ABC, because “O” in it refers to having:

(1) no antigens A and B on RBCs

(2) overdominance of this type on the genes for A and B types

(3) other antigens besides A and B on RBCs

(4) one antibody only - either anti - A or anti- B on the RBC;

Ans: (1)

[2009]

Q1341. ‘Bundle of His’ is a part of which one of the following organs in humans?

(1) Kidney

(2) Brain

(3) Pancreas

(4) Heart

Ans: (4)

[2010]

Q1342.

Ans: (4)

[2010]

Q1343. What is true about RBCs in humans?

- (1) They transport about 80 per cent oxygen only and the rest 20 per cent of it is transported in dissolved state in blood plasma
- (2) They carry about 20–25 per cent of CO_2
- (3) They do not carry CO_2 at all
- (4) They transport 99.5 per cent of O_2

Ans: (2)

[2010]

Q1344. If due to some injury the chordae tendinae of the tricuspid valve of the human heart is partially non - functional, what will be the immediate effect?

- (1) The blood will tend to flow back into the left atrium
- (2) The flow of blood into the aorta will be slowed down
- (3) The flow of blood into the pulmonary artery will be reduced
- (4) The 'pacemaker' will stop working

Ans: (3)

Q1345. ABO blood groups in humans are controlled by the gene I. It has three alleles – I^A , I^B and i . Since there are three different alleles, six different genotypes are possible. How many phenotypes can occur?

- (1) Four
- (2) Three
- (3) Two
- (4) One

Ans: (1)

[2011]

Q1346. Bulk of carbon dioxide (CO_2) released from body tissues into the blood is present as

- (1) 70% carbamino- haemoglobin and 30% as bicarbonate
- (2) bicarbonate in blood plasma and RBCs
- (3) carbamino-haemoglobin in RBCs
- (4) free CO_2 in blood plasma

Ans: (2)

[2011]

Q1347. Given below is the ECG of a normal human. Which one of its components in human is correctly interpreted below

- (1) Peak P and Peak R together-Systolic and diastolic blood pressures
- (2) Complex QRS-One complete Pulse
- (3) Peak P- Initiation of left atrial contraction only
- (4) Peak T - Initiation of total cardiac contraction

Ans: (1)

[2011]

Q1348. Which one of the following statements is correct regarding blood pressure?

- (1) 105/50 mm Hg makes one very active
- (2) 130/90 mmHg is considered high and requires treatment
- (3) 90/110 mmHg may harm vital organs like brain and kidney
- (4) 100/55 mmHg is considered an ideal blood pressure

Ans: (3)

[2011]

Q1349. Arteries are best defined as the vessels which:

- (1) break up into capillaries which reunite to form a vein
- (2) supply oxygenated blood to the different organs
- (3) carry blood from one visceral organ to another visceral organ
- (4) break up into capillaries which reunite to form one visceral organ

Ans: (4)

[2011M]

Q1350. Which one of the following plasma proteins is involved in the coagulation of blood?

- (1) a globulin
- (2) an albumin
- (3) fibrinogen
- (4) serum amylase

Ans: (3)

[2011M]

Q1351. Reabsorption of useful substances from glomerular filtrate occurs in

- (1) Proximal convoluted tubule
- (2) Collecting tube
- (3) Distal convoluted tubule
- (4) Loop of Henle

Ans: (1)

[2011M]

Q1352.

Ans: (3)

Q1353.

Ans: (4)

Q1354.

Ans: (3)

Q1355. Which one of the following human organs is often called the graveyard of RBCs?

- (1) Spleen
- (2) Gall bladder
- (3) Liver
- (4) Kidney

Ans: (1)

[1989]

Q1356. Glucose is taken back from glomerular filtrate through

- (1) Osmosis
- (2) Active transport
- (3) Diffusion
- (4) Passive transport

Ans: (2)

[1990]

Q1357. Nitrogenous waste products are eliminated mainly as

- (1) urea in both tadpole and adult frog
- (2) urea in tadpole and ammonia in adult frog
- (3) urea in tadpole and uric acid in adult frog
- (4) ammonia in tadpole and urea in adult frog

Ans: (4)

[1990]

Q1358. Under normal conditions which one is completely reabsorbed in the renal tubule?

- (1) Salts
- (2) Urea
- (3) Glucose
- (4) Uric acid

Ans: (3)

[1991]

Q1359. Proximal and distal convoluted tubules are parts of

- (1) Oviduct
- (2) Seminiferous tubules
- (3) Vas deferens
- (4) Nephron

Ans: (4)

[1991]

Q1360. Brush border is characteristic of

- (1) proximal convoluted tubule
- (2) neck of nephron
- (3) all the above
- (4) collecting tube

Ans: (1)

[1993]

Q1361. A patient suffering from cholera is given saline drip because

- (1) Na^+ ions are important in transport of substances across membrane
- (2) Cl^- ions are important component of blood plasma
- (3) Cl^- ions help in the formation of HCl in stomach for digestion
- (4) Na^+ ions help to retain water in the body

Ans: (4)

[1993]

Q1362. Uric acid is nitrogenous waste in

- (1) Frog and cartilaginous fishes
- (2) Mammals and molluscs
- (3) Insects and bony fishes

(4) Birds and lizards

Ans: (4)

Q1363. If kidney fail to reabsorb water, the effect on tissue would

(1) absorb water from blood plasma

(2) remain unaffected

(3) take more O_2 from blood

(4) shrink and shrivel

Ans: (4)

Q1364. Part not belonging to uriniferous tubule is

(1) Distal convoluted tubule

(2) Glomerulus

(3) Connecting tubule

(4) Henle's loop

Ans: (2)

[1994]

Q1365. Hair present in the skin are

(1) dermal in origin and made of living cells

(2) epidermal in origin and made of dead cells

(3) dermal in origin and made of dead cells

(4) epidermal in origin and made of living cells

Ans: (2)

[1994]

[1996, 2000]

Q1366. In the renal tubules the permeability of the distal convoluted tubule and collecting duct to water is controlled by

(1) Growth hormone

(2) Vasopressin

(3) Renin

(4) Aldosterone

Ans: (2)

[1996]

Q1367. Solenocytes are the main excretory structures in

(1) Molluscs

- (2) Platyhelminthes
- (3) Echinodermates
- (4) Annelids

Ans: (2)

[1997, 2000]

Q1368. The basic functional unit of the human kidney is

- (1) pyramid
- (2) nephron
- (3) Henle's loop
- (4) nephridia

Ans: (2)

[1997]

Q1369. In ureotelic animals, urea is formed by the

- (1) Ornithine cycle
- (2) Arginine cycle
- (3) EM pathway
- (4) Cori's cycle

Ans: (1)

[1998]

Q1370. In Ornithine cycle, which one pair of the following wastes are removed from the blood?

- (1) Ammonia and urea
- (2) CO_2 and urea
- (3) Urea and sodium salts
- (4) CO_2 and ammonia

Ans: (4)

[1999]

Q1371. If Henle's loop were absent from mammalian nephron, which of the following is to be expected?

- (1) There will be hardly any change in the quality and quantity of urine formed
- (2) The urine will be more dilute
- (3) The urine will be more concentrated
- (4) There will be no urine formation

Ans: (2)

[2000]

Q1372. In Hydra waste material of food digestion and nitrogenous waste material removed from

- (1) mouth and nematocyst
- (2) mouth and body wall
- (3) body wall and tentacles
- (4) mouth and tentacles

Ans: (2)

[2000]

Q1373. Which one of the following is a matching pair?

- (1) Saliva-tasting food
- (2) Tears-excretion of salts
- (3) Sebum-sex attraction
- (4) Sweat-thermoregulation

Ans: (4)

[2000]

Q1374. The enteronephric nephridia of earthworm are concerned with

- (1) digestion
- (2) osmoregulation
- (3) respiration
- (4) excretion of nitrogenous wastes

Ans: (4)

Q1375. Formation of concentrated (hyperosmotic) urine in vertebrates generally depends on

- (1) area of Bowman's capsule epithelium
- (2) length of the proximal convoluted tubule
- (3) capillary network forming glomerulus
- (4) length of Henle's loop

Ans: (4)

[2003]

Q1376. The net pressure gradient that causes the fluid to filter out of the glomeruli into the capsule is:

- (1) 20 mm Hg

- (2) 50 mm Hg
- (3) 30 mm Hg
- (4) 75 mm Hg

Ans: (1)

[2004]

Q1377. A person is undergoing prolonged fasting. His urine will be found to contain abnormal quantities of:

- (1) glucose
- (2) fats
- (3) ketones
- (4) amino acids

Ans: (3)

[2004]

Q1378. A terrestrial animal must be able to

- (1) actively pump salts out through the skin
- (2) excrete large amounts of water in urine
- (3) excrete large amounts of salts in urine
- (4) conserve water

Ans: (4)

[2004]

Q1379. Uricotelism is found in

- (1) Birds, reptiles and insects
- (2) Mammals and birds
- (3) Frogs and toads
- (4) Fishes and fresh water protozoans

Ans: (1)

[2005]

Q1380. When a fresh-water protozoan possessing a contractile vacuole, is placed in a glass containing marine water, the vacuole will

- (1) increase in size
- (2) increase in number
- (3) decrease in size
- (4) disappear

Ans: (3)

[2005]

Q1381. Consider the following four statements (a-d) about certain desert animals such as kangaroo, rat.

- (1) They feed on dry seeds and do not require drinking water
- (2) They have dark colour and high rate of reproduction and excrete solid urine
- (3) They excrete very concentrated urine and do not use water to regulate body temperature
- (4) They do not drink water, breathe at a slow rate to conserve water and have their body covered with thick hairs

Ans: (2)

[2005]

Q1382. Lysozyme that is present in perspiration, saliva and tears, destroys

- (1) most virus-infected cells
- (2) certain types of bacteria
- (3) certain fungi
- (4) all viruses

Ans: (2)

Q1383. Bowman's glands are located in the

- (1) olfactory epithelium of our nose
- (2) anterior pituitary
- (3) proximal end of uriniferous tubules.
- (4) female reproductive system of cockroach

Ans: (1)

[2007]

Q1384.

Ans: (1)

[2007]

Q1385. In Ornithine cycle, which of the following wastes are removed from the blood?

- (1) CO_2 and ammonia
- (2) CO_2 and urea

- (3) Urea and urine
- (4) Ammonia and urea

Ans: (1)

[2008]

Q1386. Consider the following four statements (i-iv) regarding kidney transplant and select the two correct ones out of these. (i) Even if a kidney transplant is proper the recipient may need to take immune suppressants for a long time (ii) The cell mediated immune response is responsible for the graft rejection (iii) The B lymphocytes are responsible for rejection of the graft (iv) The acceptance or rejection of a kidney transplant depends on specific interferons The two correct statements are:

- (1) (i) and (iii)
- (2) (ii) and (iii)
- (3) (i) and (ii)
- (4) (iii) and (iv)

Ans: (3)

[2009]

Q1387. The principal nitrogenous excretory compound in humans is synthesised

- (1) in liver and also eliminated by the same through bile
- (2) in kidneys but eliminated mostly through liver
- (3) in the liver, but eliminated mostly through kidneys
- (4) in kidneys as well as eliminated by kidneys

Ans: (3)

[2009]

Q1388. Which one of the following statements in regard to the excretion by the human kidneys is correct?

- (1) Nearly 99 per cent of the glomerular filtrate is reabsorbed by the renal tubules
- (2) Descending limb of Loop of Henle is impermeable to water
- (3) Ascending limb of Loop of Henle is impermeable to electrolytes
- (4) Distal convoluted tubule is incapable of reabsorbing HCO_3

Ans: (1)

[2010]

Q1389. Uric acid is the chief nitrogenous component of the excretory products of

- (1) frog
- (2) earthworm
- (3) man
- (4) cockroach

Ans: (4)

[2010]

Q1390. What will happen if the stretch receptors of the urinary bladder wall are totally removed?

- (1) There will be no micturition
- (2) Micturition will continue
- (3) Urine will not collect in the bladder
- (4) Urine will continue to collect normally in the bladder

Ans: (1)

[2010]

Q1391. Uricotelic mode of passing out nitrogenous wastes is found in

- (1) Amphibians and Reptiles
- (2) Reptiles and Bird
- (3) Insects and Amphibians
- (4) Birds and Annelids

Ans: (2)

[2011]

Q1392. Which one of the following statements is correct with respect to kidney function regulation?

- (1) An increase in glomerular blood flow stimulates formation of Angiotensin II.
- (2) When someone drinks lot of water, ADH release is suppressed.
- (3) During summer when body loses lot of water by evaporation, the release of ADH is suppressed.
- (4) Exposure to cold temperature blood flow stimulates formation of Angiotensin II.

Ans: (2)

[2011]

Q1393. Which one of the following correctly explains the function of a specific part of a human nephron?

- (1) Distal convoluted tubule: reabsorption of K^+ ions into the surrounding blood capillaries
- (2) Podocytes: create minute spaces (slit pores) for the filtration of blood into the Bowman's capsule
- (3) Afferent arteriole: carries the blood away from the glomerular towards renal vein.
- (4) Henle's loop: most reabsorption of the major substances from the glomerular filtrate

Ans: (2)

[2011]

Q1394. A large proportion of oxygen is left unused in the human blood even after its uptake by the body tissues. This O_2

- (1) is enough to keep oxyhaemoglobin saturation at 96%
- (2) acts as a reserve during muscular exercise
- (3) helps in releasing more O_2 to the epithelial tissues.
- (4) raise the pCO_2 of blood to 75 mm of Hg.

Ans: (2)

[2011]

Q1395. Which one of the following is not a part of a renal pelvis?

- (1) Collecting ducts
- (2) Peritubular capillaries
- (3) Loops of Henle
- (4) Convoluted tubules

Ans: (1)

[2011]

Q1396. Which one of the following characteristics is common to both in humans and adult frogs?

- (1) Nucleated RBCs
- (2) Four - chambered heart
- (3) Ureotelic mode of excretion
- (4) Internal fertilization

Ans: (3)

[2011M]

Q1397. A fall in glomerular filtration rate (GFR) activates

- (1) juxta - glomerular cells to release renin.
- (2) adrenal cortex to release aldosterone.
- (3) posterior pituitary to release vasopressin.
- (4) adrenal medulla to release adrenaline.

Ans: (1)

[2012]

Q1398. Which one of the following options gives the correct categorization of six animals according to the type of nitrogenous wastes (A, B, C), they give out? A-Ammonotelic ---- B-Ureotelic ---- C-Uricotelic

- (1) Aquatic Amphibia -- Frog, Humans -- Pigeon, Lizards, Cockroach
- (2) Pigeon, Humans -- Aquatic Amphibia, Lizards --Cockroach, Frog
- (3) Aquatic Amphibia --Cockroach, Humans-- Frog, Pigeon, Lizards
- (4) Frog, Lizards -- Aquatic Amphibia, Humans -- Cockroach, Pigeon

Ans: (1)

[2012M]

Q1399. The maximum amount of electrolytes and water (70 - 80 percent) from the glomerular filtrate is reabsorbed in which part of the nephron?

- (1) Proximal convoluted tubule
- (2) Ascending limb of loop of Henle
- (3) Descending limb of loop of Henle
- (4) Distal convoluted tubule

Ans: (1)

[2012M]

Q1400. Ureters act as urogenital ducts in

- (1) frog's both males and females
- (2) human males
- (3) frog's males
- (4) human females

Ans: (3)

[2012M]

Q1401. Number of cervical vertebrae in camel is

- (1) same as that of whale
- (2) more than that of rabbit
- (3) more than that of horse
- (4) less than that of rabbit

Ans: (1)

Q1402. A deltoid ridge occurs in

- (1) Femur
- (2) Radius
- (3) Humerus
- (4) Ulna

Ans: (3)

[NEET Kar. 2013]

Q1403. Extremities of long bones possess cartilage

- (1) elastic
- (2) calcified
- (3) hyaline
- (4) fibrous

Ans: (3)

[1989]

Q1404. Select the option which shows correct matching of animal with excretory organs and excretory product

Animal	Excretory organs	product
(1) Salamander	Kidney	Urea
(2) Housefly	Renal tubules	Uric acid
(3) Peacock	Kidney	Urea
(4) Labeo (Rohu)	Nephridial	Ammonia tubes

- (1) Salamander Kidney Urea
- (2) Housefly Renal tubules Uric acid
- (3) Peacock Kidney Urea
- (4) Labeo (Rohu) Nephridial Ammonia tubes

Ans: (1)

[1990]

Q1405.

Ans: (3)

[1990]

Q1406. Total number of bones in the hind limb of man is

- (1) 24

- (2) 14
 - (3) 21
 - (4) 30
- Ans: (4)

[1993]

Q1407. The number of floating ribs in the human body, is

- (1) 3 pairs
- (2) 6 pairs
- (3) 2 pairs
- (4) 5 pairs

Ans: (3)

[1994]

Q1408. Which is part of pectoral girdle?

- (1) Ilium
- (2) Glenoid cavity
- (3) Acetabulum
- (4) Sternum

Ans: (2)

[1994]

Q1409. Which ion is essential for muscle contraction?

- (1) Ca
- (2) Na
- (3) Cl
- (4) K

Ans: (1)

[1995]

Q1410. Long bones function in

- (1) support and erythrocyte synthesis
- (2) support
- (3) erythrocyte formation
- (4) support, erythrocyte and leucocyte synthesis

Ans: (4)

[1998]

Q1411. The joint found between sternum and the ribs in humans is

- (1) cartilaginous joint
- (2) angular joint
- (3) gliding joint
- (4) fibrous joint

Ans: (1)

[1998]

Q1412. Ligament is a

- (1) modified white fibrous tissue
- (2) modified yellow elastic fibrous tissue
- (3) none of these
- (4) inelastic white fibrous tissue

Ans: (2)

[1998, 2006]

Q1413. Tendon is made up of

- (1) areolar tissue
- (2) adipose tissue
- (3) yellow fibrous connective tissue
- (4) modified white fibrous tissue

Ans: (4)

[1999]

Q1414. Which of the following is the contractile protein of a muscle?

- (1) Actin
- (2) Myosin
- (3) Tubulin
- (4) Tropomyosin

Ans: (2)

[1999]

Q1415. The lower jaw in mammals is made up of

- (1) Maxilla
- (2) Mandible
- (3) Angulars
- (4) Dentary

Ans: (2)

[2000]

Q1416. Which of the following pairs, is correctly matched?

- (1) Cartilaginous - skull bones joint
- (2) Hinge joint - between vertebrae
- (3) Fibrous joint - between phalanges
- (4) Gliding joint - between zygapophyses of the successive vertebrae

Ans: (4)

[2000]

Q1417. What will happen if ligaments are cut or broken?

- (1) Bones will become unfix
- (2) Bones will move freely at joints
- (3) Bones will become fixed
- (4) No movement at joints

Ans: (1)

[2001]

Q1418. Which statement is correct for muscle contraction?

- (1) Length of I-band increases
- (2) Length of H-line decreases
- (3) Length of two Z-lines increase
- (4) Length of A-band remains constant

Ans: (4)

[2001]

Q1419. What is sarcomere?

- (1) Part between two I-bands
- (2) Part between two H-lines
- (3) Part between two Z-lines
- (4) Part between two A-lines

Ans: (3)

[2002]

Q1420. Which one of the following is a skull bone?

- (1) Arytaenoid
- (2) Atlas
- (3) Pterygoid
- (4) Coracoid

Ans: (3)

[2005]

Q1421. Elbow joint is an example of:

- (1) ball and socket joint
- (2) hinge joint
- (3) pivot joint
- (4) gliding joint

Ans: (2)

[2005]

Q1422. Which one of the following is the correct matching of three items and their grouping category? Items Group

- (1) cytosine, uracil, - pyrimidines thiamine
- (2) ilium, ischium, pubis - coxal bones of pelvic girdle
- (3) malleus, incus, - ear ossicles cochlea
- (4) actin, myosin, - muscle proteins rhodopsin.

Ans: (2)

[2007]

Q1423. Which one of the following items gives its correct total number?

- (1) Types of diabetes - 3
- (2) Floating ribs in humans - 4
- (3) Cervical vertebrae in humans - 8
- (4) Amino acids found in proteins - 16

Ans: (2)

[2008]

Q1424. In human body, which one of the following is anatomically correct?

- (1) Cranial nerves - 10 pairs
- (2) Collar bones - 3 pairs
- (3) Floating ribs - 2 pairs
- (4) Salivary glands - 1 pairs

Ans: (3)

[2009]

Q1425. An acromian process is characteristically found in the:

- (1) skull of frog
- (2) pelvic girdle of mammals
- (3) sperm of mammals

(4) pectoral girdle of mammals

Ans: (4)

[2009]

Q1426. Select the correct statement with respect to locomotion in humans:

- (1) The joint between adjacent vertebrae is a fibrous joint
- (2) Accumulation of uric acid crystals in joints causes their inflammation
- (3) The decreased level of progesterone causes osteoporosis in old people
- (4) The vertebral column has 10 thoracic vertebrae.

Ans: (2)

[2011M]

Q1427. The characteristics and an example of a synovial joint in humans is: Characteristics Examples

- (1) Lymph filled between gliding joint two bones, limited between movement carpals
- (2) Fluid filled between Skull bones two joints, provides cushion
- (3) Fluid cartilage Knee joint between two bones, limited movements
- (4) Fluid filled synovial Joint between cavity between two atlas and axis bones

Ans: (4)

[2012]

Q1428. Which one of the following pairs of chemical substances is correctly categorized?

- (1) Troponin and myosin - Complex proteins in striated muscles
- (2) Calcitonin and thymosin - Thyroid hormones
- (3) Secretin and rhodopsin - Polypeptide hormones
- (4) Pepsin and prolactin - Two digestive enzymes secreted in stomach

Ans: (1)

[2012M]

Q1429. Select the correct statement regarding the specific disorder of muscular or skeletal system :-

- (1) Myasthenia gravis - Auto immune disorder which inhibits sliding of myosin filaments
- (2) Muscular dystrophy - age related shortening of muscles.
- (3) Gout - inflammation of joints due to extra deposition of calcium.

(4) Osteoporosis - decrease in bone mass and higher chance of fractures with advancing age.

Ans: (4)

[NEET 2013]

Q1430. Three of the following pairs of the human skeletal parts are correctly matched with their respective inclusive skeletal category and one pair is not matched. Identify the non-matching pair. Pairs of skeletal parts Category

- (1) Humerus and Ulna Appendicular skeleton
- (2) Sternum and Ribs Axial skeleton
- (3) Malleus and Stapes Ear ossicles
- (4) Clavicle and Glenoid Pelvic girdle cavity

Ans: (4)

[NEET 2013]

Q1431. Sensitive pigmented layer of eye is

- (1) sclerotic
- (2) cornea
- (3) iris
- (4) retina

Ans: (4)

[NEET 2013]

Q1432. Acute vision is present in

- (1) bat
- (2) vulture
- (3) frog
- (4) shark

Ans: (2)

[NEET Kar. 2013]

Q1433. During muscle contraction in humans the

- (1) A band remain same
- (2) Actin filaments shorten
- (3) A, H and I bands shorten
- (4) Sarcomere does not shorten

Ans: (1)

[NEET Kar. 2013]

Q1434. Select the correct statement with respect to disorders of muscles in humans

- (1) Accumulation of urea and creatine in the joints cause their inflammation
- (2) Rapid contractions of skeletal muscles causes muscle dystrophy
- (3) An overdose of vitamin D causes osteoporosis
- (4) Failure of neuromuscular transmission in myasthenia gravis can prevent normal swallowing

Ans: (4)

[1988]

Q1435. The H-zone in the skeletal muscle fibre is due to:

- (1) Extension of myosin filaments in the central portion of the A-band.
- (2) The central gap between myosin filaments in the A-band.
- (3) The absence of myofibrils in the central portion of A-band.
- (4) The central gap between actin filaments extending through myosin filaments in the A-band

Ans: (4)

[1989]

Q1436. Afferent nerve fibres carry impulses from

- (1) CNS to receptors
- (2) effector organs to CNS
- (3) CNS to muscles
- (4) receptors to CNS

Ans: (4)

[1989]

Q1437. Vagus nerve is

- (1) VII
- (2) X
- (3) V
- (4) IX

Ans: (2)

[1990]

Q1438. Third ventricle of brain is also known as

- (1) paracoel
- (2) metacoel
- (3) diacoel

(4) rhinocoel

Ans: (3)

Q1439. One function of parasympathetic nervous system is

- (1) acceleration of heart beat
- (2) contraction of hair muscles
- (3) constriction of pupil
- (4) stimulation of sweat glands

Ans: (3)

Q1440. Which of the following cranial nerves can regulate heart beat?

- (1) VIII
- (2) X
- (3) VII
- (4) IX

Ans: (2)

Q1441. Ivan Pavlov performed experiments on

- (1) cardiac reflexes
- (2) simple reflexes
- (3) origin of life
- (4) conditioned reflexes

Ans: (4)

[1992]

Q1442. Light rays entering the eye is controlled by

- (1) cornea
- (2) pupil
- (3) lens
- (4) iris

Ans: (2)

[1993]

Q1443. Retina is most sensitive at

- (1) macula lutea
- (2) optic disc
- (3) fovea centralis
- (4) periphery

Ans: (3)

[1993]

Q1444. Function of iris is to

- (1) bring about movements of eye lids
- (2) move lens forward and backward
- (3) alter the size of pupil.
- (4) refract light rays

Ans: (3)

Q1445. Iris is part of

- (1) choroid and retina
- (2) sclerotic
- (3) sclerotic and choroid
- (4) choroid/Uvea

Ans: (1)

Q1446. Cornea transplantation is outstandingly successful because

- (1) the technique involved is very simple
- (2) cornea is easy to preserve
- (3) cornea is easily available
- (4) cornea is not linked up with blood vascular and immune systems

Ans: (4)

[1993]

Q1447. In humans, visceral organs are innervated by

- (1) both sympathetic and parasympathetic nerves and are under conscious control
- (2) sympathetic nerves and are under conscious control
- (3) both sympathetic and parasympathetic nerves but are not under conscious control
- (4) parasympathetic nerves and are under conscious control

Ans: (3)

[1994]

Q1448. The sympathetic nerves in mammals arise from

- (1) thoraco-lumbar nerves
- (2) sacral nerves

- (3) 3rd, 7th, 9th and 10th cranial nerves
- (4) cervical nerves

Ans: (1)

[1995]

Q1449. Respiratory centre is situated in

- (1) hypothalamus
- (2) cerebellum
- (3) cerebrum
- (4) medulla oblongata

Ans: (4)

[1996]

Q1450. CNS is mostly made of

- (1) association neurons
- (2) motor neurons and sensory neurons
- (3) motor neurons and association neurons
- (4) sensory neurons and association neurons

Ans: (1)

[1996]

Q1451. Suspensory ligament is part of

- (1) tongue
- (2) heart
- (3) brain
- (4) eye

Ans: (4)

[1997, 03]

Q1452. In vertebrates, simple reflex action is

- (1) trisynaptic
- (2) polysynaptic
- (3) monosynaptic
- (4) bisynaptic

Ans: (3)

[1997]

Q1453. Anesthetics reduce pain by blocking the transmission of nerve impulses. The kind of chemicals working as anesthetics are those that block

- (1) only the neuro-transmitter receptors
 - (2) only the voltage-gated sodium channels in membranes
 - (3) voltage-gated sodium and potassium channels and neuro-transmitter receptors
 - (4) only the voltage-gated potassium channels in membranes
- Ans: (3)

[1998]

Q1454. In the chemistry of vision in mammals, the photosensitive substance is called

- (1) rhodopsin
- (2) sclerotin
- (3) melanin
- (4) retinol

Ans: (1)

[1999]

Q1455. The Nissl's granules of nerve cells are made up of

- (1) DNA
- (2) ribosomes
- (3) mitochondria
- (4) proteins

Ans: (2)

[1999]

Q1456. Which of the following statements is correct for 'nodes of Ranvier' of nerve?

- (1) Both neurilemma and myelin sheath are discontinuous
- (2) Neurilemma is discontinuous
- (3) Covered by myelin sheath
- (4) Myelin sheath is discontinuous

Ans: (4)

[1999]

Q1457. Characteristic feature of human cornea

- (1) Blood circulation is absent in cornea
- (2) Secreted by conjunctiva and glandular
- (3) In old age it becomes harden and white layer deposits on it which causes cataract

(4) It is lacrimal gland which secretes tears

Ans: (1)

[2001]

Q1458. When we migrate from dark to light, we fail to see for sometime but after a time visibility becomes normal. It is an example of

- (1) mutation
- (2) accommodation
- (3) photoperiodism
- (4) adaptation

Ans: (4)

[2001]

Q1459. What is intensity of sound in normal conversation?

- (1) 70—90 decibel
- (2) 10—20 decibel
- (3) 120—150 decibel
- (4) 30—60 decibel

Ans: (4)

[2001]

Q1460. Neuroglia consist of cells found in the

- (1) central nervous system and ganglia
- (2) liver
- (3) testes
- (4) kidney

Ans: (1)

[2002]

Q1461. Four healthy people in their twenties got involved in injuries resulting in damage and death of a few cells of the following. Which of the cells are least likely to be replaced by new cells?

- (1) Malpighian layer of the skin
- (2) Liver cells
- (3) Osteocytes
- (4) Neurons

Ans: (4)

[2002]

Q1462. In the resting state of the neural membrane, diffusion due to concentration gradients, if allowed, would drive

- (1) Na^+ into the cell
- (2) K^+ into the cell
- (3) Na^+ out of the cell
- (4) K^+ and Na^+ out of the cell

Ans: (1)

[2003]

Q1463. Injury to vagus nerve in humans is not likely to affect

- (1) pancreatic secretion
- (2) tongue movements
- (3) cardiac movements
- (4) gastrointestinal movements

Ans: (2)

[2004]

Q1464. Ommatidia serve the purpose of photoreception in

- (1) frog
- (2) sunflower
- (3) humans
- (4) cockroach

Ans: (4)

[2004]

Q1465. In which animal nerve cell is present but brain is absent?

- (1) Cockroach
- (2) Sponge
- (3) Hydra
- (4) Earthworm

Ans: (3)

[2005]

Q1466. Which one of the following pairs of structures distinguishes a nerve cell from other types of cells?

- (1) Nucleus and mitochondria
- (2) Vacuoles and fibres
- (3) Perikaryon and dendrites.

(4) Flagellum and medullary sheath

Ans: (3)

[2005]

Q1467. Which of the following is an example of negative feedback loop in humans?

(1) Secretion of sweat glands and constriction of skin blood vessels when it is too hot

(2) Secretion of tears after falling of sand particles into the eye.

(3) Constriction of skin blood vessels and contraction of skeletal muscles when it is too cold

(4) Salivation of mouth at the sight of delicious food

Ans: (3)

[2005]

Q1468. During the transmission of nerve impulse through a nerve fibre, the potential on the inner side of the plasma membrane has which type of electric change?

(1) First positive, then negative and again back to positive

(2) First positive, then negative and continue to be positive

(3) First negative, then positive and again back to negative.

(4) First negative, then positive and continue to be positive.

Ans: (3)

[2007]

Q1469. One of the examples of the action of the autonomous nervous system is

(1) peristalsis of the intestine

(2) swallowing of food

(3) knee-jerk response

(4) pupillary reflex

Ans: (1)

[2007]

Q1470. In a man, abducens nerve is injured. Which one of the following functions will be affected?

(1) Swallowing

(2) Movement of the eye ball

(3) Movement of the neck

(4) Movement of the tongue

Ans: (2)

[2007]

Q1471. Alzheimer disease in humans is associated with the deficiency of:

- (1) gamma aminobutyric acid (GABA)
- (2) glutamic acid
- (3) dopamine
- (4) acetylcholine

Ans: (4)

[2008]

Q1472. Cornea transplant in humans is almost never rejected. This is because

- (1) it is composed of enucleated cells
- (2) its cells are least penetrable by bacteria
- (3) it is a non-living layer
- (4) it has no blood supply

Ans: (4)

[2008]

Q1473. During the propagation of a nerve impulse, the action potential results from the movement of:

- (1) K^+ ions from intracellular fluid to extracellular fluid
- (2) K^+ ions from extracellular fluid to intracellular fluid
- (3) Na^+ ions from extracellular fluid to intracellular fluid
- (4) Na^+ ions from intracellular fluid to extracellular fluid

Ans: (3)

[2008]

Q1474. Which one of the following is the correct difference between Rod Cells and Cone Cells of our retina? Rod Cells Cone Cells

- (1) Overall: Vision in Colour function poor light vision and detailed vision in bright light
- (2) Visual: High Low acuity
- (3) Distribu- More conc- Evenly tion: entrated in distributed retina all over
- (4) Visual: Iodopsin Rhodpsin pigment contained

Ans: (1)

[2008]

Q1475. Given below is a diagrammatic cross section of a single loop of human cochlea: A A B C D Which one of the following options correctly represents the names of three different parts?

- (1) D: Sensory hair cells, A: Endolymph, B: Tectorial membrane
- (2) B: Tectorial membrane, C: Perilymph, D: Secretory cells
- (3) A: Perilymph, B: Tectorial membrane, C: Endolymph
- (4) C: Endolymph, D: Sensory hair cells, A: Serum

Ans: (3)

[2009]

Q1476. The human hind brain comprises three parts, one of which is:

- (1) Cerebellum
- (2) Spinal cord
- (3) Hypothalamus
- (4) Corpus callosum

Ans: (1)

[2009]

Q1477. The purplish red pigment rhodopsin contained in the rods type of photoreceptor cells of the human eye, is a derivative of:

- (1) vitamin D
- (2) vitamin B1
- (3) vitamin A
- (4) vitamin C

Ans: (2)

[2010]

Q1478. When a neuron is in resting state I not conducting any impulse, the axonal membrane is:

- (1) impermeable to both Na^+ and K^+ ions
- (2) comparatively more permeable to Na^+ ions and nearly impermeable to K^+ ions
- (3) comparatively more permeable to K^+ ions and nearly impermeable to Na^+ ions
- (4) equally permeable to both Na^+ and K^+ ions

Ans: (3)

[2011]

Q1479. The nerve centres which control the body temperature and the urge for eating are contained in:

- (1) cerebellum
- (2) hypothalamus
- (3) thalamus
- (4) pons

Ans: (2)

[2011]

Q1480. Which part of human brain is concerned with the regulation of body temperature?

- (1) Hypothalamus
- (2) Cerebellum
- (3) Medulla Oblongata
- (4) Cerebrum

Ans: (1)

[2012]

Q1481.

Ans: (1)

[2012]

Q1482.

Ans: (3)

[2012]

Q1483. The most abundant intracellular cation is:

- (1) K^+
- (2) Ca^{++}
- (3) Na^+
- (4) H^+

Ans: (1)

[NEET 2013]

Q1484. A person entering an empty room suddenly finds a snake right in front on opening the door. Which one of the following is likely to happen in his neuro-hormonal control system?

- (1) Hypothalamus activates the parasympathetic division of brain.
- (2) Sympathetic nervous system is activated releasing epinephrin and norepinephrin from adrenal medulla.
- (3) Sympathetic nervous system is activated releasing epinephrin and norepinephrin from adrenal cortex.
- (4) Neurotransmitters diffuse rapidly across the cleft and transmit a nerve impulse.

Ans: (2)

Q1485. Which part of the human ear plays no role in hearing as such but is otherwise very much required?

- (1) Vestibular apparatus
- (2) Eustachian tube
- (3) Ear ossicles
- (4) Organ of corti

Ans: (1)

Q1486. Insulin is

- (1) hormone
- (2) vitamin
- (3) enzyme
- (4) lipid

Ans: (1)

Q1487. Addition of a trace of thyroxine or iodine in water containing tadpoles will

- (1) slow down their metamorphosis
- (2) keep them in larval stage
- (3) kill the tadpoles
- (4) hasten their metamorphosis

Ans: (4)

[1988]

Q1488. Which hormone possesses anti-insulin effect?

- (1) Oxytocin
- (2) Cortisol
- (3) Aldosterone
- (4) Calcitonin

Ans: (2)

[1988]

Q1489. MSH of pars intermedia of middle pituitary is responsible for

- (1) noth A and B
- (2) darkening of skin in lower vertebrates
- (3) darkening of skin in human beings
- (4) light colouration of skin in lower vertebrates

Ans: (2)

[1990]

Q1490.

Ans: (3)

[1990]

Q1491. Male hormone is produced in the testis by cells of

- (1) spermatocytes
- (2) sertoli
- (3) leydig
- (4) epithelial

Ans: (3)

[1991]

Q1492. Testosterone is produced by

- (1) oxyntic cells
- (2) sertoli cells
- (3) pituitary gland
- (4) leydig's cells

Ans: (4)

[1991]

Q1493. Gastric secretion is stopped by hormone

- (1) pancreozymen
- (2) enterogastrone
- (3) cholecystokinin
- (4) gastrin

Ans: (2)

[1993]

Q1494. ADH or vasopressin is

- (1) hormone that promotes glycogenolysis
- (2) enzyme that hydrolyses peptides
- (3) energy rich compound connected with muscle contraction.
- (4) hormone secreted by pituitary that promotes reabsorption of water from glomerular filtrate

Ans: (4)

[1993]

Q1495. Occurrence of Leydig's cells and their secretion is

- (1) pancreas and glucagon
- (2) ovary and estrogen
- (3) testes and testosterone
- (4) liver and cholesterol

Ans: (3)

[1993]

Q1496. Nicotine acts as a stimulant, because it mimics the effect of

- (1) testosterone
- (2) thyroxine
- (3) dopamine
- (4) acetylcholine

Ans: (4)

[1994]

Q1497. The mammalian corpus luteum produces

- (1) luteotropic hormone
- (2) estrogen
- (3) luteinizing hormone
- (4) progesterone

Ans: (4)

[1994]

Q1498. Ovulation occurs under the influence of

- (1) estrogen
- (2) LH
- (3) progesterone
- (4) FSH

Ans: (2)

[1994]

Q1499. Function of enterogastrone is

- (1) inhibition of gastric secretion
- (2) regulation of bile flow
- (3) stimulation of gastric secretion
- (4) stimulation of pancreatic flow

Ans: (1)

[1995]

Q1500. Ovulation is stimulated by

- (1) estrogen
- (2) LH
- (3) progesterone
- (4) FSH

Ans: (2)

[1995]

Q1501. According to the “immunity theory” of ageing, the process starts with the gradual atrophy and disappearance of

- (1) thymus
- (2) thyroid
- (3) islets of Langerhans
- (4) parathyroid

Ans: (1)

[1995]

Q1502. Which one of the following hormone stimulates the “let-down” (release) of milk from the mother’s breasts when the baby is sucking?

- (1) Prolactin
- (2) Progesterone
- (3) Relaxin
- (4) Oxytocin

Ans: (4)

[1995]

Q1503. Which of the following radioactive isotope is used in the detection of thyroid cancer?

- (1) Uranium-238

- (2) Iodine-131
- (3) Phosphorus-32
- (4) Carbon-14

Ans: (2)

[1995, 02]

Q1504. According to the accepted concept of hormone action, if receptor molecules are removed from target organs, then the target organ will

- (1) continue to respond to the hormone but in the opposite way
- (2) not respond to the hormone
- (3) continue to respond to the hormone but will require higher concentration
- (4) continue to respond to hormone without any difference

Ans: (2)

[1996]

Q1505. Which of the following endocrine gland stores its secretion in the extracellular space before discharging it into the blood?

- (1) Testis
- (2) Pancreas
- (3) Thyroid
- (4) Adrenal

Ans: (3)

[1996]

Q1506. Parathormone deficiency produces muscle ramps or tetany as a result of

- (1) enhanced blood glucose
- (2) lowered blood Ca^{2+}
- (3) enhanced blood Ca^{2+}
- (4) enhanced blood Na^+

Ans: (2)

[1996]

Q1507. The most important component of the oral contraceptive pill is

- (1) luteinizing hormone
- (2) growth hormone
- (3) progesterone

(4) thyroxine

Ans: (3)

[1997]

Q1508. Calcitonin is a thyroid hormone which

- (1) has no effect on calcium
- (2) lowers calcium level in blood
- (3) elevates potassium level in blood
- (4) elevates calcium level in blood

Ans: (2)

[1998]

Q1509. Hormones, thyroxine, adrenaline and the pigment melanin are formed from

- (1) tyrosine
- (2) tryptophan
- (3) proline
- (4) glycine

Ans: (1)

[1998]

Q1510. In human adult females oxytocin

- (1) stimulates pituitary to secrete vasopressin
- (2) is secreted by anterior pituitary
- (3) causes strong uterine contractions during parturition
- (4) stimulates growth of mammary glands

Ans: (3)

[1999]

Q1511. The gland that regresses with age is

- (1) thymus
- (2) adrenal
- (3) thyroid
- (4) gonad

Ans: (1)

[1999]

Q1512. Insulin differs from growth hormone in that it

- (1) increases mRNA/ribosome activity
- (2) stimulates lipoprotein lipase in vicinity of fat cells

- (3) stimulates hormone sensitive lipase in fat cells
- (4) increases the transport of amino acids across the cell membranes of muscles

Ans: (3)

Q1513. A candidate vaccine for male contraception is based on

- (1) testosterone
- (2) follicle stimulating hormone
- (3) luteinizing hormone
- (4) progesterone

Ans: (1)

Q1514. The technique used for estimation of minute amounts of hormones and drugs is called

- (1) fractionation
- (2) electrophoresis
- (3) radioimmunoassay
- (4) electroencephalogram

Ans: (3)

Q1515. Oxytocin helps in

- (1) ovulation
- (2) lactation
- (3) implantation of the embryo
- (4) child birth

Ans: (4)

[1999]

Q1516. Mainly which type of hormones control the menstrual cycle in human beings?

- (1) FSH, LH, estrogen
- (2) FSH
- (3) Progesteron
- (4) LH

Ans: (1)

[2000]

Q1517. Melanin protects us from

- (1) infrared rays
- (2) U. V. rays
- (3) X-rays
- (4) visible rays

Ans: (2)

[2000]

Q1518. Progesterone, the component of the oral contraceptive pills, prevents pregnancy by

- (1) blocking ovulation
- (2) preventing the cleavage of the fertilized egg
- (3) creating unfavourable chemical environment for the sperms to survive in the female reproductive tract
- (4) preventing the formation of ova

Ans: (1)

[2000]

Q1519. Melanocyte stimulating hormone (MSH) is produced by

- (1) anterior pituitary
- (2) parathyroid
- (3) posterior pituitary
- (4) pars intermedia of pituitary

Ans: (4)

[2002]

Q1520. Melatonin is produced by

- (1) pituitary
- (2) thymus
- (3) pineal gland
- (4) skin

Ans: (3)

[2002]

Q1521. Which one of the following pairs correctly matches a hormone with a disease resulting from its deficiency?

- (1) Prolactin – Cretinism
- (2) Insulin – Diabetes insipidus
- (3) Parathyroid hormone – Tetany
- (4) Relaxin – Gigantism

Ans: (3)

[2002]

Q1522. Which steroid is used for microbial transformation?

- (1) Testosterone
- (2) Cortisol
- (3) Progesterone
- (4) Cholesterol

Ans: (4)

[2002]

Q1523. Acromegaly is caused by

- (1) deficiency of thyroxin
- (2) excess of G.H.
- (3) excess of adrenalin
- (4) excess of thyroxin

Ans: (2)

[2002]

Q1524. Adrenaline directly affects on

- (1) dorsal root of spinal cord
- (2) S. A. node
- (3) epithelial cells of stomach
- (4) b-cells of Langerhans

Ans: (2)

[2002]

Q1525. When both ovaries are removed from rat then which hormone is decreased in blood?

- (1) Estrogen
- (2) Oxytocin
- (3) Gonadotropin releasing factor
- (4) Prolactin

Ans: (1)

[2003]

Q1526. Parkinson's disease (characterized by tremors and progressive rigidity of limbs) is caused by degeneration of brain neurons that are involved in movement control and make use of neurotransmitter

- (1) dopamine
- (2) acetylcholine
- (3) GABA
- (4) norepinephrine

Ans: (1)

[2004]

Q1527. Which one of the following hormones is a modified amino acid?

- (1) Prostaglandin
- (2) Epinephrine
- (3) Estrogen
- (4) Progesterone

Ans: (2)

[2004]

Q1528. Which of the following hormones is not a secretion product of human placenta?

- (1) Estrogen
- (2) Human chorionic gonadotropin
- (3) Progesterone
- (4) Prolactin

Ans: (4)

[2004]

Q1529. Which one of the following pairs correctly matches a hormone with a disease resulting from its deficiency?

- (1) Thyroxine - Tetany
- (2) Luteinizing - Failure of ovulation
- (3) Parathyroid - Diabetes mellitus
- (4) Insulin - Diabetes insipidus

Ans: (2)

[2004]

Q1530. Chemically hormones are

- (1) proteins only
- (2) biogenic amines only
- (3) steroids only
- (4) proteins, steroids and biogenic amines

Ans: (4)

[2005]

Q1531. Which of the following is an accumulation and release centre of neurohormones?

- (1) Anterior pituitary lobe
- (2) Intermediate lobe of the pituitary
- (3) Posterior pituitary lobe
- (4) Hypothalamus

Ans: (3)

[2006]

Q1532. Which one of the following does not act as a neurotransmitter?

- (1) Cortisone
- (2) Epinephrine
- (3) Acetylcholine
- (4) Norepinephrine

Ans: (1)

Q1533. Which one of the following is not a second messenger in hormone action?

- (1) cAMP
- (2) Calcium
- (3) cGMP
- (4) Sodium

Ans: (4)

[2006]

Q1534. A steroid hormone which regulates glucose metabolism is

- (1) cortisone
- (2) corticosterone
- (3) cortisol
- (4) 11- deoxycorticosterone

Ans: (3)

[2006]

Q1535. Sertoli cells are regulated by the pituitary hormone known as

- (1) LH
- (2) GH
- (3) FSH
- (4) Prolactin

Ans: (3)

[2006]

Q1536. Feeling the tremors of an earthquake a scared resident of seventh floor of a multistored building starts climbing down the stairs rapidly. Which hormone initiated this action?

- (2) gastrin
- (2) adrenaline
- (3) thyroxine
- (4) glucagon

Ans: (2)

[2006]

Q1537. A person is having problems with calcium and phosphorus metabolism in his body. Which one of following glands may not be functioning properly?

- (1) Thyroid
- (2) Parotid
- (3) Parathyroid
- (4) Pancreas

Ans: (3)

[2006]

Q1538. Which part of ovary in mammals acts as an endocrine gland after ovulation?

- (1) Vitelline membrane
- (2) Stroma
- (3) Graafian follicle.
- (4) Germinal epithelium

Ans: (3)

[2007]

Q1539. Which one of the following statement is correct?

- (1) Endocrine glands regulate neural activity, but not vice versa
- (2) Endocrine glands regulate neural activity, and nervous system regulates

endocrine glands

(3) Neurons regulate endocrine activity, but not vice versa

(4) Neither hormones control neural activity nor the neurons control endocrine activity

Ans: (2)

[2007]

Q1540. Which hormone causes dilation of blood vessels, increased oxygen consumption and gluconeogenesis?

(1) Glucagon

(2) Insulin

(3) ACTH

(4) Adrenaline

Ans: (4)

[2007]

Q1541. Low Ca^{++} in the body fluid may be the cause of:

(1) angina pectoris

(2) tetany

(3) gout

(4) anaemia

Ans: (2)

[2008]

Q1542. Injury to adrenal cortex is not likely to affect the secretion of which one of the following?

(1) Adrenaline

(2) Aldosterone

(3) Cortisol

(4) Both Androstenedione and Dehydroepiandrosterone

Ans: (1)

[2008]

Q1543. A health disorder that results from the deficiency of thyroxine in adults and characterised by (i) a low metabolic rate, (ii) increase in body weight and (iii) tendency to retain water in tissues is:

(1) cretinism

(2) simple goitre

(3) hypothyroidism

(4) myxoedema

Ans: (4)

[2009]

Q1544. Which one of the following pairs of organs includes only the endocrine glands?

(1) Thymus and Testes

(2) Parathyroid and Adrenal

(3) Adrenal and Ovary

(4) Pancreas and Parathyroid

Ans: (2)

[2010]

Q1545. The blood calcium level is lowered by the deficiency of

(1) both calcitonin and parathormone

(2) parathormone

(3) calcitonin

(4) thyroxine

Ans: (2)

[2010]

Q1546. The 24 hour (diurnal) rhythm of our body such as the sleep-wake cycle is regulated by the hormone:

(1) adrenaline

(2) calcitonin

(3) melatonin

(4) prolactin

Ans: (3)

[2010]

Q1547.

Ans: (2)

[2010]

Q1548. Match the source gland with respective hormone as well as the function correctly. Source gland – Hormone -- Function

(1) Corpus luteum -- Estrogen -- Supports pregnancy

(2) Anterior pituitary – Oxytocin -- Contraction of uterus muscles during child birth

- (3) Thyroid -- Thyroxine --Regulates blood calcium level
(4) Posterior pituitary – Vasopressin -- Stimulates reabsorption of water in the distal tubules in the nephron

Ans: (4)

[2011]

Q1549. Toxic agents present in food which interfere with thyroxine synthesis lead to the development of:

- (1) simple goitre
(2) toxic goitre
(3) thyrotoxicosis
(4) cretinism

Ans: (1)

Q1550. Which one of the following pairs is incorrectly matched?

- (1) Corpus luteum - Relaxin (secretion)
(2) Glucagon - Beta cells (source)
(3) Insulin - Diabetes mellitus (disease)
(4) Somatostatin - Delta cells (source)

Ans: (2)

[2011M]

Q1551. A pregnant female deliver a baby who suffers from stunted growth, mental retardation/low intelligence quotient and abnormal skin. This is the result of:

- (1) Over secretion of pars distalis
(2) Low secretion of growth hormone
(3) Deficiency of iodine in diet
(4) Cancer of the thyroid gland

Ans: (3)

[2012]

Q1552. Which of the following statements is correct in relation to the endocrine system?

- (1) Releasing and inhibitory hormones are produced by the pituitary gland.
(2) Organs in the body like gastrointestinal tract, heart, kidney and liver do not produce any hormones.
(3) Adenohypophysis is under direct neural regulation of the hypothalamus.
(4) Non-nutrient chemicals produced by the body in trace amount that act as

intercellular messenger are known as hormones.

Ans: (4)

[2012]

Q1553. F₂ generation in a Mendelian cross showed that both genotypic and phenotypic ratios are same as 1: 2: 1. It represents a case of:

- (1) Monohybrid cross with complete dominance
- (2) Co-dominance
- (3) Monohybrid cross with incomplete dominance
- (4) Dihybrid cross

Ans: (3)

[2012]

Q1554. What is correct to say about the hormone action in humans

- (1) In females FSH first binds with specific receptors on ovarian cell membrane
- (2) Glucagon is secreted by β -cells of islets of Langerhans and stimulates glycogenolysis
- (3) FSH stimulates the secretion of estrogen and progesterone
- (4) Secretion of thymosins is stimulated with ageing

Ans: (1)

[NEET 2013]

Q1555. Which one of the following pairs of hormones are the examples of those that can easily pass through the cell membrane of the target cell and bind to a receptor inside it (Mostly in the nucleus)

- (1) Somatostatin, oxytocin
- (2) Insulin, glucagon
- (3) Cortisol, testosterone
- (4) Thyroxin, insulin

Ans: (3)

[NEET 2013]

Q1556. During cleavage, what is true about cells?

- (1) There is less consumption of oxygen
- (2) Nucleocytoplasmic ratio remains unchanged

(3) The division is like meiosis

(4) Size does not increase

Ans: (4)

Q1557. Cells become variable in morphology and function in different regions of the embryo. The process is

(1) organisation

(2) differentiation

(3) rearrangement

(4) metamorphosis

Ans: (2)

[NEET Kar. 2013]

Q1558. Norepinephrine: (1) Is released by sympathetic fibres (2) Is released by parasympathetic fibres (3) Increases the heart rate (4) Decreases blood pressure Which of the above said statements are correct?

(1) (2) and (1)

(2) (2) and (4)

(3) (2) and (3)

(4) (1) and (3)

Ans: (4)

[NEET Kar. 2013]

Q1559. Which of the following represents the action of insulin?

(1) Decreases blood glucose levels of forming glycogen

(2) Increases blood glucose levels by hydrolysis of glycogen

(3) Increases blood glucose level by promoting cellular uptake of glucose

(4) Increases blood glucose levels by stimulating glucagon production

Ans: (1)

[1989]

Q1560.

Ans: (4)

[1991]

Q1561. In telolecithal egg the yolk is found

(1) both the sides

(2) all over the egg

- (3) centre
 - (4) on one side
- Ans: (4)

[1992]

Q1562. Termination of gastrulation is indicated by

- (1) closure of blastopore
- (2) obliteration of blastocoel
- (3) closure of neural tube
- (4) obliteration of archenteron

Ans: (2)

[1992]

Q1563. Blastopore is

- (1) future anterior end of embryo
- (2) opening of neural tube
- (3) found in blastula
- (4) opening of gastrocoel

Ans: (4)

[1992]

Q1564. Eye lens is formed from

- (1) endoderm
- (2) ectoderm
- (3) ectoderm and mesoderm
- (4) mesoderm

Ans: (2)

Q1565. Meroblastic cleavage is division

- (1) total
- (2) horizontal
- (3) spiral
- (4) partial/parietal

Ans: (4)

[1993]

Q1566. Which of the following processes is associated with a change in the cellular DNA amount?

- (1) Fertilization
- (2) Spore germination

(3) Blastulation

(4) Cytokinesis

Ans: (1)

[1993]

Q1567. The correct sequence in the process of development of human embryo is

(1) fertilization—zygote—blastula—morula—cleavage—gastrula

(2) fertilization—zygote—cleavage—morula—blastula—gastrula

(3) cleavage—zygote—fertilization—morula—blastula—gastrula

(4) fertilization—cleavage—morula—zygote—blastula—gastrula

Ans: (2)

[1994]

Q1568. In an egg, the type of cleavage is determined by

(1) amount and distribution of yolk

(2) shape and size of the sperm

(3) number of egg membranes

(4) size and location of the nucleus

Ans: (1)

[1995]

Q1569. What is true about cleavage in fertilized egg of humans?

(1) Starts in fallopian tube

(2) Meroblastic

(3) It is identical to normal mitosis

(4) Starts when egg reaches uterus

Ans: (1)

[1998]

Q1570. Amount of yolk and its distribution are changed in the egg. Which one is affected?

(1) Number of blastomeres

(2) Pattern of cleavage

(3) Fertilization

(4) Formation of zygote

Ans: (2)

[1999]

Q1571. Vegetative propagation in mint occurs by:

- (1) sucker
- (2) offset
- (3) runner
- (4) rhizome

Ans: (1)

[1999]

Q1572. What is true for cleavage?

- (1) Size of cells increase
- (2) Size of embryo increases
- (3) Size of embryo decreases
- (4) Size of cells decrease

Ans: (4)

[2000]

Q1573. During regeneration, modification of an organ to other organ is known as

- (1) Morphallaxis
- (2) Morphogenesis
- (3) Accretionary growth
- (4) Epimorphosis

Ans: (4)

[2001]

Q1574. Blastopore is the opening of

- (1) blastocoel
- (2) coelenteron
- (3) archenteron
- (4) coelom

Ans: (3)

[2002]

Q1575. Exponential growth of cells is a characteristic feature of

- (1) unicellular organisms
- (2) tissue culture cells
- (3) embryo
- (4) multicellular organisms

Ans: (3)

[2009]

Q1576. Monoecious plant of Chara shows occurrence of:

- (1) upper oogonium and lower antheridium on the same plant
- (2) stamen and carpel of the same plant
- (3) antheridiophore and archegoniophore on the same plant
- (4) upper antheridium and lower oogonium on the same plant

Ans: (1)

[2011]

Q1577. Select the wrong statement:

- (1) Chlamydomonas exhibits both isogamy and anisogamy and Fucus shows oogamy.
- (2) Anisogametes differ either in structure, function or behaviour.
- (3) Isogametes are similar in structure, function and behaviour.
- (4) In Oomycetes female gamete is smaller and motile, while male gamete is larger and non-motile.

Ans: (4)

[2011M]

Q1578. Which one of the following is correctly matched

- (1) Chlamydomonas - Conidia
- (2) Onion - Bulb
- (3) Yeast - Zoospores
- (4) Ginger - Sucker

Ans: (2)

[2012]

Q1579. What is common between vegetative reproduction and apomixis?

- (1) Both occur round the year
- (2) Both are applicable to only dicot plants
- (3) Both produces progeny identical to the parent
- (4) Both bypass the flowering phase

Ans: (3)

[NEET 2013]

Q1580. The “Eyes” of the potato tuber are

- (1) shoot buds
- (2) root buds
- (3) axillary buds

(4) flower buds

Ans: (3)

[NEET 2013]

Q1581. Male gametophyte of angiosperms is shed as

(1) microspore mother cell

(2) four celled pollen grain

(3) anther

(4) three celled pollen grain

Ans: (4)

[NEET 2013]

Q1582. Parthenogenesis is

(1) development of fruit without hormones

(2) development of embryo without fertilization

(3) development of embryo from egg without fertilization

(4) development of fruit without fertilization

Ans: (3)

[NEET Kar. 2013]

Q1583. Formation of gametophyte directly from sporophyte without meiosis is

(1) Parthenogenesis

(2) Apospory

(3) Amphimixis

(4) Apogamy

Ans: (2)

[1988]

Q1584. Syngamy can occur outside the body of the organism in

(1) Algae

(2) Fungi

(3) Ferns

(4) Mosses

Ans: (1)

[1988]

Q1585. Meiosis takes place in:

(1) Megaspore

(2) Conidia

- (3) Meiocyte
 - (4) Gemmule
- Ans: (3)

[1988]

Q1586. Generative cell was destroyed by laser but a normal pollen tube was still formed because

- (1) laser beam stimulates growth of pollen tube
- (2) vegetative cell is not damaged
- (3) the region of emergence of pollen tube is not harmed
- (4) contents of killed generative cell stimulate pollen growth

Ans: (2)

[1988]

Q1587. Nucellar embryo is

- (1) Apomictic haploid
- (2) Amphimictic haploid
- (3) Apomictic diploid
- (4) Amphimictic diploid

Ans: (3)

[1988, 93]

Q1588. Development of an organism from female gamete/egg without involving fertilization is

- (1) Parthenocarpy
- (2) Adventitive embryony
- (3) Parthenogenesis
- (4) Polyembryony

Ans: (3)

[1989]

Q1589. Double fertilization and triple fusion were discovered by

- (1) Leeuwenhoek
- (2) Hofmeister
- (3) Strasburger
- (4) Nawaschin and Guignard

Ans: (4)

[1989]

Q1590. Total number of meiotic division required for forming 100

zygotes/100 grains of wheat is

- (1) 125
- (2) 100
- (3) 50
- (4) 75

Ans: (1)

Q1591. Female gametophyte of angiosperms is represented by

- (1) Embryo sac
- (2) Ovule
- (3) Nucellus
- (4) Megaspore mother cell

Ans: (1)

[1989]

Q1592. Male gametophyte of angiosperms/monocots is

- (1) Microspore
- (2) Microsporangium
- (3) Stamen
- (4) Nucellus

Ans: (1)

[1989, 2004]

Q1593. Which one produces androgenic haploids in anther cultures?

- (1) Connective tissue
- (2) Anther wall
- (3) Young pollen grains
- (4) Tapetal layer of anther wall

Ans: (3)

[1990]

Q1594. A diploid female plant and a tetraploid male plant are crossed. The ploidy of endosperm shall be

- (1) diploid
- (2) tetraploid
- (3) pentaploid
- (4) triploid

Ans: (2)

[1990]

Q1595. Which is correct?

- (1) Gametes are generally haploid
- (2) Gametes are invariably haploid
- (3) Both spores and gametes are invariably haploid
- (4) Spores are invariably haploid

Ans: (2)

[1990]

Q1596. Embryo sac occurs in

- (1) Ovule
- (2) Embryo
- (3) Endosperm
- (4) Axis part of embryo

Ans: (1)

[1990]

Q1597. Pollination occurs in

- (1) Angiosperms and gymnosperms
- (2) Bryophytes and angiosperms
- (3) Angiosperms and fungi
- (4) Pteridophytes and angiosperms

Ans: (1)

[1990]

Q1598. Cellular totipotency was demonstrated by

- (1) F.C. Steward
- (2) Theodore Schwann
- (3) Robert Hooke
- (4) A.V. Leeuwenhoek

Ans: (1)

[1991]

Q1599. Entry of pollen tube through micropyle is

- (1) Porogamy
- (2) Chalazogamy
- (3) Pseudogamy
- (4) Mesogamy

Ans: (1)

[1991]

Q1600. Sperm and egg nuclei fuse due to

- (1) mutual attraction
- (2) base pairing of their DNA and RNA
- (3) attraction of their protoplasts
- (4) formation of hydrogen bonds

Ans: (3)

[1991]

Q1601. Meiosis is best observed in dividing

- (1) microspores and anther wall
- (2) cells of apical meristem
- (3) microsporocytes
- (4) cells of lateral meristem

Ans: (3)

[1991]

Q1602. Double fertilization is fusion of

- (1) one male gamete with egg and other with synergid
- (2) two eggs
- (3) one male gamete with egg and other with secondary nucleus
- (4) two eggs and polar nuclei with pollen nuclei

Ans: (3)

[1991]

Q1603. Syngamy means

- (1) fusion of two similar spores
- (2) fusion of gametes
- (3) fusion of two dissimilar spores
- (4) fusion of cytoplasm

Ans: (2)

[1991]

Q1604. Point out the odd one?

- (1) Micropyle
- (2) Nucellus
- (3) Pollen grain
- (4) Embryo sac

Ans: (3)

[1991]

Q1605. Which of the following pair has haploid structures?

- (1) Antipodal cells and megaspore mother cell
- (2) Nucellus and antipodal cells
- (3) Nucellus and primary endosperm nucleus
- (4) Antipodal cells and egg cell

Ans: (4)

[1992]

Q1606. Double fertilization is characteristic of

- (1) Gymnosperms
- (2) Angiosperms
- (3) Bryophytes
- (4) Pteridophytes

Ans: (2)

[1993]

Q1607. Ovule is straight with funiculus, embryo sac, chalaza and micropyle lying on one straight line. It is

- (1) Campylotropous
- (2) Orthotropous
- (3) Amphitropous
- (4) Anatropous

Ans: (2)

[1993]

Q1608. Study of formation, growth and development of new individual from an egg is

- (1) Embryogeny
- (2) Apomixis
- (3) Cytology
- (4) Embryology

Ans: (4)

[1993]

Q1609. Which of the following plant cells will show totipotency?

- (1) Meristem
- (2) Sieve tubes
- (3) Cork cells

(4) Xylem vessels

Ans: (1)

[1993]

Q1610. A population of genetically identical individuals, obtained from asexual reproduction is

- (1) Deme
- (2) Callus
- (3) Aggregate
- (4) Clone

Ans: (4)

[1993]

Q1611. Fertilization involving carrying of male gametes by pollen tube is

- (1) Chalazogamy
- (2) Porogamy
- (3) Syngonogamy
- (4) Siphonogamy

Ans: (4)

[1993]

Q1612. Transfer of pollen to the stigma of another flower of the same plant is

- (1) Xenogamy
- (2) Autogamy
- (3) Geitonogamy
- (4) Allogamy

Ans: (3)

[1994]

Q1613. Chief pollinators of agricultural crops are

- (1) moths
- (2) butterflies
- (3) beetles
- (4) bees

Ans: (4)

[1994]

Q1614. Haploid plant cultures are got from

- (1) pollen grain
- (2) leaves
- (3) buds
- (4) root tip

Ans: (1)

[1994]

Q1615. Number of meiotic divisions required to produce 200/400 seeds of Pea would be

- (1) 300/600
- (2) 200/400
- (3) 250/500
- (4) 400/800

Ans: (3)

[1994]

Q1616. How many pollen grains will be formed after meiotic division in ten microspore mother cells?

- (1) 40
- (2) 10
- (3) 80
- (4) 20

Ans: (1)

[1994]

Q1617. Reproducing new plants by cells instead of seeds is known as

- (1) antibiotics
- (2) mutation
- (3) biofertilizer
- (4) tissue culture

Ans: (4)

[1995]

Q1618.

Ans: (2)

Q1619. In an angiosperm, how many microspore mother cells are required to produce 100 pollen grains

- (1) 75
- (2) 25
- (3) 100 36 The polyembryony commonly occurs in
- (4) 50

Ans: (2)

[1995]

Q1620. One of the most resistant biological material is

- (1) lignocellulose
- (2) lignin
- (3) sporopollenin
- (4) hemicellulose

Ans: (3)

[1996]

Q1621. Double fertilisation leading to initiation of endosperm in Angiosperms require

- (1) fusion of four or more polar nuclei and the second male gamete only
- (2) fusion of one polar nucleus and the second male gamete only
- (3) all the above kinds of fusion in different angiosperms
- (4) fusion of two polar nuclei and the second male gamete

Ans: (4)

[1996]

Q1622. Flowers showing ornithophily show few characteristic like

- (1) bright red flower in thick inflorescence
- (2) blue flower with nectaries at base of corolla
- (3) white flowers with fragrance
- (4) red sweet scented flower with nectaries

Ans: (2)

[1997]

Q1623. The endosperm of gymnosperm is

- (1) diploid
- (2) triploid
- (3) polyploid
- (4) haploid

Ans: (4)

[1999]

Q1624. If an angiospermic male plant is diploid and female plant tetraploid, the ploidy level of endosperm will be

- (1) tetraploid
- (2) haploid
- (3) pentaploid
- (4) triploid

Ans: (3)

[1999]

Q1625. In angiosperms, triple fusion is required for the formation of

- (1) seed coat
- (2) embryo
- (3) fruit wall
- (4) endosperm

Ans: (4)

[2000]

Q1626. What is the direction of micropyle in anatropous ovule?

- (1) right
- (2) upward
- (3) left
- (4) downward

Ans: (4)

[2000]

Q1627. In angiosperms pollen tubes liberate their male gametes into the

- (1) egg cell
- (2) central cell
- (3) synergids
- (4) antipodal cell

Ans: (3)

[2001]

Q1628. Adventive polyembryony in citrus is due to

- (1) zygotic embryo
- (2) nucellus

- (3) fertilised egg
 - (4) integuments
- Ans: (2)

[2001, 05]

Q1629. Anemophily type of pollination is found in

- (1) Vallisneria
 - (2) Salvia
 - (3) Coconut
 - (4) Bottle brush
- Ans: (3)

Q1630. Eight nucleate embryo sacs are

- (1) always bisporic
 - (2) always tetrasporic
 - (3) sometime monosporic, sometimes bisporic and sometimes tetrasporic
 - (4) always monosporic
- Ans: (4)

[2002]

[2002]

Q1631.

Ans: (4)

[2002]

Q1632. An ovule which becomes curved so that the nucellus and embryo sac lie at right angles to the funicle is

- (1) Anatropous
 - (2) Hemitropous
 - (3) Orthotropous
 - (4) Campylotropous
- Ans: (2)

[2002]

Q1633. In a flowering plant, archesporium gives rise to

- (1) both wall and the sporogenous cells
 - (2) only tapetum and sporogenous cells
 - (3) wall and the tapetum
 - (4) only the wall of the sporangium
- Ans: (1)

[2003]

Q1634. In angiosperms all the four microspores of tetrad are covered by a layer which is formed by

- (1) cellulose
- (2) pectocellulose
- (3) sporopollenin
- (4) callose

Ans: (3)

[2004]

Q1635. Which type of association is found in between entomophilous flower and pollinating agent

- (1) cooperation
- (2) mutualism
- (3) co-evolution
- (4) commensalism

Ans: (2)

Q1636.

Ans: (3)

Q1637.

Ans: (4)

Q1638.

Ans: (2)

Q1639.

Ans: (2)

Q1640.

Ans: (1)

Q1641.

Ans: (3)

Q1642.

Ans: (2)

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Q1643.

Ans: (3)

Q1644.

Ans: (2)

Q1645.

Ans: (2)

Q1646.

Ans: (2)

Q1647.

Ans: (2)

Q1648.

Ans: (2)

Q1649.

Ans: (4)

Q1650.

Ans: (1)

Q1651. Apomictic embryos in citrus arise from

- (1) Antipodal cells
- (2) Synergids
- (3) Diploid egg
- (4) Maternal sporophytic tissue in ovule

Ans: (4)

[2008]

Q1652. An example of a seed with endosperm, perisperm, and caruncle is

- (1) castor
- (2) coffee
- (3) cotton
- (4) lily

Ans: (1)

[2009]

Q1653. Cotyledons and testa respectively are edible parts in

- (1) cashew nut and litchi
- (2) walnut and tamarind
- (3) groundnut and pomegranate
- (4) french bean and coconut

Ans: (3)

[2009]

Q1654. A fruit developed from hypanthodium inflorescence is called

- (1) Caryopsis
- (2) Sorosis
- (3) Hasperidium
- (4) Syconus

Ans: (4)

[2009]

Q1655. The fruit is chambered, developed from inferior ovary and has seeds with succulent testa in

- (1) guava
- (2) pomegranate
- (3) cucumber
- (4) orange

Ans: (2)

[2010]

Q1656. Nucellar polyembryony is reported in species of

- (1) Triticum
- (2) Citrus
- (3) Brassica
- (4) Gossypium

Ans: (2)

[2010]

Q1657. Filiform apparatus is a characteristic feature of

- (1) synergid
- (2) suspensor
- (3) zygote

(4) egg
Ans: (1)

[2010]

Q1658. Wind pollinated flowers are

- (1) large producing abundant nectar and pollen
- (2) small, brightly coloured, producing large number of pollen grains
- (3) small, producing nectar and dry pollen
- (4) small, producing large number of dry pollen grains

Ans: (4)

[2010]

Q1659. The scutellum observed in a grain of wheat or maize is comparable to which part of the seed in other monocotyledons?

- (1) Aleurone layer
- (2) Cotyledon
- (3) Plumule
- (4) Endosperm

Ans: (2)

[2011]

Q1660. Transfer of pollen grains from the anther to the stigma of another flower of the same plant is called

- (1) Karyogamy
- (2) Xenogamy
- (3) Autogamy
- (4) Geitonogamy

Ans: (4)

[2011]

Q1661. An organic substance that can withstand environmental extremes and cannot be degraded by any enzyme is:

- (1) Lignin
- (2) Cuticle
- (3) Cellulose
- (4) Sporopollenin

Ans: (4)

[2011]

Q1662. Both, autogamy and geitonogamy are prevented in -

- (1) Castor
- (2) Papaya
- (3) Maize
- (4) Cucumber

Ans: (2)

[2011]

Q1663. A drupe develops in

- (1) pea
- (2) mango
- (3) tomato
- (4) wheat

Ans: (2)

[2011]

Q1664. Wind pollination is common in

- (1) grasses
- (2) legumes
- (3) orchids
- (4) lilies

Ans: (1)

[2012]

Q1665. In which one of the following pollination is autogamous?

- (1) Chasmogamy
- (2) Geitonogamy
- (3) Cleistogamy
- (4) Xenogamy

Ans: (3)

[2012]

Q1666. Perisperm differs from endosperm in;

- (1) its formation by fusion of secondary nucleus with several sperms
- (2) having no reserve food
- (3) being a haploid tissue
- (4) being a diploid tissue

Ans: (4)

[2012]

Q1667. Plants with ovaries having only one or a few ovules, are

generally pollinated by

- (1) birds
- (2) bees
- (3) wind
- (4) butterflies

Ans: (3)

[2012M]

Q1668. Which one of the following statements is wrong?

- (1) Pollen grains in some plants remain viable for months.
- (2) When pollen is shed at two-celled stage, double fertilization does not take place.
- (3) Intine is made up of cellulose and - pectin.
- (4) Vegetative cell is larger than generative cell.

Ans: (2)

[2012M]

Q1669. What is the function of germ pore?

- (1) Initiation of pollen tube
- (2) Emergence of radicle
- (3) Release of male gametes
- (4) Absorption of water for seed germination

Ans: (1)

[2012M]

Q1670. Even in absence of pollinating agents seed setting is assured in

- (1) Salvia
- (2) Commellina
- (3) Fig
- (4) Zostera

Ans: (2)

[NEET 2013]

Q1671. Which one of the following statements is correct?

- (1) Tapetum nourishes the developing pollen
- (2) Sporogenous tissue is haploid
- (3) Hard outer layer of pollen is called intine
- (4) Endothecium produces the microspores

Ans: (1)

[NEET 2013]

Q1672. Product of sexual reproduction generally generates:

- (1) Large biomass
- (2) Prolonged dormancy
- (3) Longer viability of seeds
- (4) New genetic combination leading to variation

Ans: (4)

[NEET 2013]

Q1673. Advantage of cleistogamy is:

- (1) Vivipary
- (2) More vigorous offspring
- (3) Higher genetic variability
- (4) No dependence of pollinators

Ans: (4)

[NEET 2013]

Q1674. Seed coat is not thin, membranous in:

- (1) Gram
- (2) Coconut
- (3) Maize
- (4) Groundnut

Ans: (2)

[NEET 2013]

Q1675. Megasporangium is equivalent to:

- (1) Ovule
- (2) Fruit
- (3) Embryo sac
- (4) Nucellus

Ans: (1)

[NEET 2013]

Q1676. Which of the following statements is correct?

- (1) Sporopollenin is made up of inorganic materials
- (2) Sporopollenin can withstand high temperatures but not strong acids
- (3) Sporopollenin can withstand high temperatures as well as strong acids and alkalis

(4) Sporopollenin can be degraded by enzymes

Ans: (3)

[NEET Kar. 2013]

Q1677. Animal vectors are required for pollination in

- (1) Mulberry
- (2) Maize
- (3) Cucumber
- (4) Vallisneria

Ans: (3)

[NEET Kar. 2013]

Q1678. Megaspores are produced from the megaspore mother cells after

- (1) Formation of a thick wall
- (2) Meiotic division
- (3) Differentiation
- (4) Mitotic division

Ans: (2)

[NEET Kar. 2013]

Q1679. Which one of the following statements is correct?

- (1) Xenogamy occurs only by wind pollination
- (2) Geitonogamy involves the pollen and stigma of flowers of different plants
- (3) Chasmogamous flowers do not open at all
- (4) Cleistogamous flowers are always autogamous

Ans: (4)

[NEET Kar. 2013]

Q1680. The viability of seeds is tested by

- (1) 2, 3, 5 triphenyl tetrazolium chloride
- (2) Safranin
- (3) DMSO
- (4) 2, 6 dichlorophenol indophenols

Ans: (1)

[NEET Kar. 2013]

Q1681. Amniocentesis is a technique

- (1) in which the sex of the foetus can be reversed
- (2) by which the essential amino acids in the body can be estimated

- (3) that can be used for correcting genetic disorders of the foetus
- (4) by which any chromosomal anomalies in the foetus can be detected

Ans: (4)

[NEET Kar. 2013]

Q1682. Test tube baby is one who

- (1) is born out of the technique of fertilization in vitro
- (2) is born out of artificial insemination
- (3) has been developed without fertilization
- (4) has undergone development in a test tube

Ans: (1)

[NEET Kar. 2013]

Q1683. The estrous cycle is a characteristic of

- (1) mammalian males other than primates
- (2) human males only
- (3) mammalian females other than primates
- (4) human females only

Ans: (3)

[1995]

Q1684. Which of the following statements is not true about somatic embryogenesis?

- (1) Somatic embryos can develop from microspores
- (2) A somatic embryo develops from a somatic cell
- (3) Somatic embryo is induced usually by an auxin such as 2, 4-D
- (4) The pattern of development of a somatic embryo is comparable to that of a zygotic embryo

Ans: (1)

[1996, 2003]

Q1685. Albuminous seeds store their reserve food mainly in

- (1) Cotyledons
- (2) Perisperm
- (3) Hypocotyl
- (4) Endosperm

Ans: (4)

[1997]

Q1686. During embryonic development, the establishment of

polarity along anterior/ posterior, dorsal/ventral or medial/lateral axis is called

- (1) axis formation
- (2) pattern formation
- (3) anamorphosis
- (4) organizer phenomena

Ans: (4)

[1999]

Q1687. Cleavage in mammalian egg is

- (1) unequal holoblastic
- (2) superficial meroblastic
- (3) equal holoblastic
- (4) discoidal meroblastic

Ans: (1)

Q1688. Exponential growth of cells is a characteristic feature of

- (1) unicellular organisms
- (2) tissue culture cells
- (3) embryo
- (4) multicellular organisms

Ans: (3)

[1999]

Q1689. The growth of corpus luteum is initiated by

- (1) Luteinizing hormone
- (2) Human chorionic gonadotropin
- (3) Prolactin
- (4) Follicle stimulating hormone

Ans: (1)

[2000]

Q1690. After ovulation the collapsed ovarian follicle shrinks and becomes filled with cell to form

- (1) corpus atresia
- (2) corpus luteum
- (3) corpus adiposum
- (4) corpus albicans

Ans: (2)

[2003]

Q1691. In humans, at the end of the first meiotic division, the male germ cells differentiate into the

- (1) spermatids
- (2) primary spermatocytes
- (3) spermatozoa
- (4) secondary spermatocytes

Ans: (4)

[2005]

Q1692. In the human female, menstruation can be deferred by the administration of

- (1) FSH only
- (2) combination of FSH and LH
- (3) LH only
- (4) combination of estrogen and progesterone

Ans: (4)

[2005]

Q1693. Withdrawal of which of the following hormones is the immediate cause of menstruation?

- (1) Progesterone
- (2) FSH
- (3) Estrogen
- (4) FSH-RH

Ans: (1)

[2006]

Q1694. Grey crescent is the area

- (1) at the animal pole
- (2) at the point of entry of sperm into ovum
- (3) at the vegetal pole
- (4) just opposite to the site of entry of sperm into ovum

Ans: (4)

[2007]

Q1695. If mammalian ovum fails to get fertilized, which one of the following is unlikely?

- (1) Estrogen secretion further decreases

- (2) Corpus luteum will disintegrate
- (3) Primary follicle starts developing
- (4) Progesterone secretion rapidly declines

Ans: (1)

Q1696.

Ans: (2)

[2008]

Q1697. Seminal plasma in humans is rich in

- (1) fructose and certain enzymes but poor in calcium
- (2) fructose and calcium but has no enzymes
- (3) fructose, calcium and certain enzymes
- (4) glucose and certain enzymes but has no calcium

Ans: (1)

[2008]

Q1698. Which one of the following is the correct matching of the events occurring during menstrual cycle?

- (1) Menstruation: Breakdown of myometrium and ovum not fertilised.
- (2) Proliferative phase: Rapid regeneration of myometrium and maturation of Graffian follicle.
- (3) Ovulation: LH and FSH attain peak level and sharp fall in the secretion of progesterone.
- (4) Development of corpus luteum: Secretory phase and increased secretion of progesterone.

Ans: (4)

[2009]

Q1699. Which one of the following statements is incorrect about menstruation?

- (1) At menopause in the female, there is especially abrupt increase in gonadotropic hormones
- (2) During normal menstruation about 40 ml blood is lost
- (3) The beginning of the cycle of menstruation is called menarche
- (4) The menstrual fluid can easily clot

Ans: (4)

[2009]

Q1700. Which extra-embryonic membrane in humans prevents desiccation of the embryo inside the uterus?

- (1) Yolk sac
- (2) Chorion
- (3) Amnion
- (4) Allantois

Ans: (3)

Q1701. In vitro fertilisation is a technique that involves transfer of which one of the following into the fallopian tube?

- (1) Embryo of 32 cell stage
- (2) Embryo only, upto 8 cell stage
- (3) Zygote only
- (4) Either zygote or early embryo upto 8 cell stage

Ans: (2)

[2009]

Q1702. A change in the amount of yolk and its distribution in the egg will affect

- (1) fertilization
- (2) pattern of cleavage
- (3) formation of zygote
- (4) number of blastomeres produced

Ans: (2)

[2009]

Q1703. Which one of the following is the most likely root cause why menstruation is not taking place in regularly cycling human female?

- (1) retention of well -developed corpus luteum
- (2) maintenance of the hypertrophical endometrial lining
- (3) fertilisation of the ovum
- (4) maintenance of high concentration of sex hormones in the blood stream

Ans: (3)

[2009]

Q1704. The correct sequence of spermatogenetic stages leading to the formation of sperms in a mature human testes is:

- (1). spermatogonia - spermatid - spermatocyte - sperms
- (2) spermatogonia - spermatocyte - spermatid -sperms
- (3) spermatocyte - spermatogonia - spermatid - sperms
- (4) spermatid - spermatocyte - spermatogonia - sperms

Ans: (2)

[2009]

Q1705. Foetal ejection reflex in human female is induced by

- (1) differentiation of mammary glands
- (2) release oxytocin from pituitary
- (3) pressure exerted by amniotic fluid
- (4) fully developed foetus and placenta

Ans: (4)

[2010]

Q1706. The signals for parturition originate from

- (1) oxytocin released from maternal pituitary
- (2) placenta only
- (3) fully developed foetus only
- (4) placenta as well as fully developed foetus

Ans: (4)

[2010]

Q1707. The permissible use of the technique amniocentesis is for

- (1) transfer of embryo into the uterus of the surrogate mother
- (2) detecting sex of the unborn foetus
- (3) detecting any genetic abnormality
- (4) artificial insemination

Ans: (3)

Q1708. Seminal plasma in human males is rich in:

- (1) DNA and testosterone
- (2) fructose and calcium
- (3) ribose and potassium
- (4) glucose and calcium

Ans: (2)

Q1709. Vasa efferentia are the ductules leading from

- (1) vas deferens to epididymis

- (2) testicular lobules to rete testis
- (3) epididymis to urethra
- (4) rete testis to vas deferens

Ans: (4)

[2010]

Q1710. Sertoli cells are found in

- (1) seminiferous tubules and provide nutrition to germ cells
- (2) ovaries and secrete progesterone
- (3) pancreas and secrete cholecystokinin
- (4) adrenal cortex and secrete adrenaline

Ans: (1)

[2010]

Q1711. The part of fallopian tube closest to the ovary is

- (1) cervix
- (2) isthmus
- (3) ampulla
- (4) infundibulum

Ans: (4)

[2010]

Q1712. Which one of the following statements about morula in humans is correct?

- (1) It has more or less equal quantity of cytoplasm and DNA as in uncleaved zygote
- (2) It has almost equal quantity of cytoplasm as an uncleaved zygote but much more DNA
- (3) It has more cytoplasm and more DNA than an uncleaved zygote
- (4) It has far less cytoplasm as well as less DNA than in an uncleaved zygote

Ans: (2)

[2010]

Q1713. Which one of the following statements about human sperm is correct?

- (1) Acrosome serves as a sensory structure leading the sperm towards the ovum
- (2) Acrosome has a conical pointed structure used for piercing and penetrating the egg, resulting in fertilisation

- (3) Acrosome serves no particular function
- (4) The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilisation

Ans: (4)

[2010]

Q1714. The second maturation division of the mammalian ovum occurs

- (1) until the nucleus of the sperm has fused with that of the ovum
- (2) shortly after ovulation before the ovum makes entry into the fallopian tube
- (3) in the graafian follicle following the first maturation division
- (4) until after the ovum has been penetrated by a sperm

Ans: (4)

[2010]

Q1715. The first movements of the foetus and appearance of hair on its head are usually observed during which month of pregnancy?

- (1) Sixth month
- (2) Fourth month
- (3) Third month
- (4) Fifth month

Ans: (4)

[2010]

Q1716. About which day in a normal human menstrual cycle does rapid secretion of LH (Popularly called LH-surge) normally occurs?

- (1) 5th day
- (2) 14th day
- (3) 11th day
- (4) 20th day

Ans: (2)

[2011]

Q1717. What happens during fertilisation in humans after many sperms reach close to the ovum?

- (1) Cells of corona radiata trap all the sperms except one

(2) Secretions of acrosome helps one sperm enter cytoplasm of ovum through zona pellucida

(3) Only two sperms nearest the ovum penetrate zona pellucida

(4) All sperms except the one nearest to the ovum lose their tails

Ans: (2)

[2011]

Q1718.

Ans: (4)

Q1719. The testes in humans are situated outside the abdominal cavity insides pouch called scrotum. The purpose served is for

(1) providing more space for the growth of epididymis

(2) maintaining the scrotal temperature lower than the internal body temperature

(3) providing a secondary sexual feature for exhibiting the male sex

(4) escaping any possible compression by the visceral organs

Ans: (2)

[2011M]

Q1720. If for some reason, the vasa efferentia in the human reproductive system gets blocked, the gametes will not be transported from

(1) ovary to uterus

(2) testes to epididymis

(3) vagina to uterus

(4) epididymis to vas deferens

Ans: (2)

[2011M]

Q1721.

Ans: (1)

[2012]

Q1722. The Leydig cells found in the human body are the secretory source of

(1) glucagon

(2) Progesterone

(3) androgens

(4) intestinal mucus

Ans: (3)

[2012]

Q1723. In a normal pregnant woman, the amount of total gonadotropin activity was assessed. The result expected was

(1) High level of FSH and LH in uterus to stimulate endometrial thickening

(2) High level of circulating FSH and LH in the uterus to stimulate implantation of the embryo

(3) High level of circulating HCG to stimulate estrogen and progesterone synthesis

(4) High level of circulating HCG to stimulate endometrial thickening

Ans: (3)

[2012]

Q1724. Signals for parturition originate from:

(1) Placenta only

(2) Both placenta as well as fully developed foetus

(3) Fully developed foetus only

(4) Oxytocin released from maternal pituitary

Ans: (2)

[2012]

Q1725. Which one of the following statements is false in respect of viability of mammalian sperm?

(1) Viability of sperm is determined by its motility.

(2) Sperm is viable for only up to 24 hours.

(3) Sperms must be concentrated in a thick suspension.

(4) Survival of sperm depends on the pH of the medium and is more active in alkaline medium.

Ans: (3)

Q1726. Which of the following best illustrates FEEDBACK in development?

(1) As tissue (X) develops, it secretes enzymes that inhibit the development of tissue (Y)

(2) As tissue (X) develops, it secretes something that slows down the growth of tissue (Y)

(3) As tissue (X) develops, it secretes something that induces tissue (Y) to

develop

(4) Tissue (X) secretes RNA which changes the development of tissue (Y)

Ans: (3)

[2012M]

Q1727. Which one of the following is not the function of placenta?

It:

(1) secretes oxytocin during parturition

(2) secretes estrogen

(3) facilitates supply of oxygen and nutrients to embryo

(4) facilitates removal of carbon dioxide and waste material from embryo.

Ans: (1)

[NEET 2013]

Q1728. What is the correct sequence of sperm formation?

(1) Spermatogonia, spermatocyte, spermatid, spermatozoa

(2) Spermatozoa, spermatocyte, spermatid, spermatogonia

(3) Spermatid, spermatocyte, spermatogonia, spermatozoa

(4) Spermatozoa, spermatocyte, spermatid, spermatogonia

Ans: (1)

[NEET 2013]

Q1729. Menstrual flow occurs due to lack of:

(1) Vasopressin

(2) FSH

(3) Progesterone

(4) Oxytocin

Ans: (3)

[NEET 2013]

Q1730. The secretory phase in the human menstrual cycle is also called

(1) luteal phase and lasts for about 13 days

(2) luteal phase and lasts for about 6 days

(3) follicular phase and lasts for about 13 days

(4) follicular phase lasting for about 6 days

Ans: (1)

[NEET Kar. 2013]

Q1731.

Ans: (2)

Q1732. Copper-T is a device that prevents

- (1) fertilization
- (2) implantation of blastocyst
- (3) egg maturation
- (4) ovulation

Ans: (2)

[NEET Kar. 2013]

Q1733. The foetal ejection reflex in humans triggers release of

- (1) Human Chorionic Gonadotropin (hCG) from placenta
- (2) Oxytocin from maternal pituitary
- (3) Human Placental Lactogen (hPL) from placenta
- (4) Oxytocin from foetal pituitary

Ans: (2)

[NEET Kar. 2013]

Q1734. Select the option which correctly matches the endocrine gland with its hormone and its function Endocrine gland --

Hormone -- Function

- (1) Corpus – estrogen -- essential for luteum maintenance of endometrium
- (2) Ovary -- FSH -- stimulates follicular development and the secretion of estrogens.
- (3) Leydig – androgen -- initiates the cells production of sperms.
- (4) Placenta – estrogen -- initiates secretion of the milk.

Ans: (3)

[2000]

Q1735.

Ans: (4)

Q1736. The technique called gamete intrafallopian transfer (GIFT) is recommended for those females:

- (1) whose cervical canal is too narrow to allow passage for the sperms
- (2) who cannot produce an ovum
- (3) who cannot provide suitable environment for fertilisation
- (4) who cannot retain the foetus inside uterus.

Ans: (2)

[2008]

Q1737. Medical Termination of Pregnancy (MTP) is considered safe up to how many weeks of pregnancy?

- (1) Eighteen weeks
- (2) Eight weeks
- (3) Six weeks
- (4) Twelve weeks

Ans: (4)

[2010]

Q1738. Which one of the following is the most widely accepted method of contraception in India, as at present?

- (1) Diaphragms
- (2) Cervical caps
- (3) IUDs. (Intra uterine devices)
- (4) Tubectomy

Ans: (3)

[2011]

Q1739. Cu ions released from copper - releasing Intra Uterine Devices (IUDs):

- (1) suppress sperm motility
- (2) make uterus unsuitable for implantation
- (3) prevent ovulation
- (4) increase phagocytosis of sperms

Ans: (1)

[2011]

Q1740. Consider the statements given below regarding contraception and answer as directed thereafter: \ (i) Medical Termination of Pregnancy (MTP) during first trimester is generally safe \ (ii) Generally chances of conception are nil until mother breast-feeds the infant upto two years \ (iii) Intrauterine devices like copper-T are effective contraceptives \ (iv) Contraception pills may be taken upto one week after coitus to prevent conception Which two of the above statements are correct?

- (1) i and iii

- (2) ii and iii
- (3) i and ii
- (4) iii and iv

Ans: (1)

[2011M]

Q1741. Artificial insemination mean:

- (1) Introduction of sperms of a healthy donor directly into the ovary
- (2) Transfer of sperms of husband to a test tube containing ova
- (3) Transfer of sperms of a healthy donor to a test tube containing ova
- (4) Artificial introduction of sperms of a healthy donor into the vagina

Ans: (4)

Q1742. One of the legal methods of birth control is:

- (1) by a premature ejaculation during coitus
- (2) by abstaining from coitus from day 10 to 17 of the menstrual cycle
- (3) abortion by taking an appropriate medicine
- (4) by having coitus at the time of day break

Ans: (3)

[2012]

Q1743. Which of the following cannot be detected in a developing foetus by amniocentesis?

- (1) Jaundice
- (2) Sex of the foetus
- (3) Klinefelter syndrome
- (4) Down syndrome

Ans: (1)

[NEET 2013]

Q1744. The test-tube Baby Programme employs which one of the following techniques

- (1) Gamete intra fallopian transfer (GIET)
- (2) Intra cytoplasmic sperm injection (ICSI)
- (3) Zygote intra fallopian transfer (ZIFT)
- (4) Intra uterine insemination (IUI)

Ans: (3)

[NEET 2013]

Q1745.

Ans: (1)

[NEET 2013]

Q1746. Haploids are able to express both recessive and dominant alleles/mutations because there are

- (1) only one allele for each gene in the individual
- (2) many alleles for each gene
- (3) only one allele in a gene
- (4) two alleles for each gene

Ans: (1)

[NEET Kar. 2013]

Q1747. What contribute to the success of Mendel?

- (1) His knowledge of biology
- (2) Qualitative analysis of data
- (3) Consideration of one character at one time
- (4) Observation of distinct inherited traits

Ans: (3)

[NEET Kar. 2013]

Q1748. The stage transferred into the uterus after induced fertilization of ova in the laboratory is

- (1) Embryo at 2 blastomere stage
- (2) Zygote
- (3) Morula
- (4) Embryo at 4 blastomere stage

Ans: (3)

[NEET Kar. 2013]

Q1749. Which one of the following statements is correct regarding Sexually Transmitted Diseases (STD)?

- (1) Haemophilia is one of the STD
- (2) The chances of a 5 year boy contacting a STD are very little
- (3) Genital herpes and sickle-cell anaemia are both STD
- (4) A person may contact syphilis by sharing milk with one already suffering from the disease

Ans: (2)

Q1750. One of the following is not a method of contraception –

which one?

- (1) Pills of a combination of oxytocin and vasopressin
- (2) Tubectomy
- (3) Lippes loop
- (4) Condoms

Ans: (1)

Q1751. Triticale has been evolved by intergeneric hybridization between

- (1) rice and maize
- (2) wheat and rye
- (3) wheat and Aegilops
- (4) wheat and rice

Ans: (2)

[1988]

Q1752.

Ans: (1)

Q1753. Diploid chromosome number in humans is

- (1) 48
- (2) 46
- (3) 42
- (4) 44

Ans: (2)

Q1754. Mutations used in agriculture are commonly

- (1) lethal
- (2) induced
- (3) recessive and lethal
- (4) spontaneous

Ans: (2)

Q1755. A mother in a family of five daughters is expecting her sixth baby. The chance of its being a son is

- (1) 50%
- (2) zero
- (3) 100%

(4) 25%

Ans: (1)

[1989, 2001]

Q1756. Cross between AaBB and aaBB will form

(1) 3 AaBB: 1 aaBB

(2) 1 AaBB: 1aaBB

(3) 1 AaBB: 3 aaBB

(4) All AaBB

Ans: (2)

Q1757. In a genetic cross having recessive epistasis, F₂ phenotypic ratio would be

(1) 9: 3: 4

(2) 9: 6: 1

(3) 12: 3: 1

(4) 15: 1

Ans: (1)

[1990]

Q1758. ABO blood group system is due to

(1) multiple allelism

(2) multifactor inheritance

(3) epistasis

(4) incomplete dominance

Ans: (1)

[1990]

Q1759. tt mates with Tt. What will be characteristic of offspring?

(1) 25% recessive

(2) 75% recessive

(3) All dominant

(4) 50% recessive

Ans: (4)

[1990]

Q1760. A normal green male maize is crossed with albino female.

The progeny is albino because

(1) plastids are inherited from female parent

(2) trait for albinism is dominant

- (3) green plastids of male must have mutated
(4) the albinos have biochemical to destroy plastids derived from green male
Ans: (1)

[1990]

Q1761. Bateson used the terms coupling and repulsion for linkage and crossing over. Name the correct parent of coupling type along with its cross repulsion

- (1) Coupling aaBB, aabb; Repulsion AABB, aabb
(2) Coupling AABB, aabb; Repulsion AABB, AAbb
(3) Coupling AABB, aabb; Repulsion AAbb, aaBB
(4) Coupling AAbb, aaBB; Repulsion AaBb, aabb

Ans: (3)

[1990]

Q1762. Haemophilia is more common in males because it is a

- (1) Dominant trait carried by X-chromosome
(2) Recessive character carried by Y-chromosome
(3) Recessive trait carried by X-chromosome
(4) Dominant character carried by Y-chromosome

Ans: (3)

[1990]

Q1763. Which one is a hereditary disease?

- (1) Blindness
(2) Cataract
(3) Phenylketonuria
(4) leprosy

Ans: (3)

[1990]

Q1764. Both husband and wife have normal vision though their fathers were colour blind. The probability of their daughter becoming colour blind is

- (1) 50%
(2) 0%
(3) 75%
(4) 25%

Ans: (2)

[1990]

Q1765. An octamer of 4 histones complexed with DNA forms

- (1) mesosome
- (2) endosome
- (3) centromere
- (4) nucleosome

Ans: (4)

[1990]

Q1766. A dihybrid condition is

- (1) tt rr
- (2) tt Rr
- (3) Tt Rr
- (4) Tt rr

Ans: (3)

[1990]

Q1767. Blue eye colour is recessive to brown eye colour. A brown eyed man whose mother was blue eyed marries a blue-eyed women. The children shall be

- (1) all blue eyed
- (2) both blue eyed and brown eyed 1:1
- (3) blue eyed and brown eyed 3: 1
- (4) all brown eyed

Ans: (2)

[1991]

Q1768. The allele which is unable to express its effect in the presence of another is called

- (1) complementary
- (2) codominant
- (3) recessive
- (4) supplementary

Ans: (3)

[1991]

Q1769. Red (RR) Antirrhinum is crossed with white (WW) one. Offspring RW are pink. This is an example of

- (1) hybrid

- (2) dominant -recessive
- (3) supplementary genes
- (4) incomplete dominance

Ans: (4)

[1991]

Q1770. In Down's syndrome of a male child, the sex complement is

- (1) XX
- (2) XO
- (3) XXY
- (4) XY

Ans: (4)

[1991]

Q1771. A man of A-blood group marries a women of AB blood group. Which type of progeny would indicate that man is heterozygous A?

- (1) O
- (2) AB
- (3) B
- (4) A

Ans: (3)

[1991]

Q1772. Multiple alleles control inheritance of

- (1) sickle cell anaemia
- (2) phenylketonuria
- (3) blood groups
- (4) colour blindness

Ans: (3)

[1991]

Q1773. The contrasting pairs of factors in Mendelian crosses are called

- (1) alloloci
- (2) multiple alleles
- (3) paramorphs
- (4) allelomorphs

Ans: (4)

[1991]

Q1774. First geneticist/ father of genetics was

- (1) Darwin
- (2) de Vries
- (3) Morgan
- (4) Mendel

Ans: (4)

Q1775. Mendel's last law is

- (1) independent assortment
- (2) segregation
- (3) polygenic inheritance
- (4) dominance

Ans: (1)

Q1776. A gene pair hides the effect of another. The phenomenon is

- (1) mutation
- (2) epistasis
- (3) none of the above
- (4) dominance

Ans: (2)

[1991]

Q1777. In a cross between $AABB \times aabb$, the ratio of F₂ genotypes between $AABB$, $AaBB$, $Aabb$ and $aabb$ would be

- (1) 1: 2: 2: 1
- (2) 9: 3: 3: 1
- (3) 7: 5: 3: 1
- (4) 2: 1: 1: 2

Ans: (1)

Q1778. Segregation of Mendelian factors (no linkage, no crossing over) occurs during

- (1) diplotene
- (2) anaphase I

(3) metaphase I

(4) anaphase II

Ans: (2)

[1992]

Q1779. An organism with two identical alleles is

(1) heterozygous

(2) dominant

(3) homozygous

(4) hybrid

Ans: (3)

[1992]

Q1780. A colour blind girl is rare because she will be born only when

(1) her mother is colour blind and father has normal vision

(2) her mother and maternal grand father were colour blind

(3) parents have normal vision but grand parents were colour blind.

(4) her father and maternal grand father were colour blind

Ans: (4)

[1992, 95, 99]

Q1781. A colour blind mother and normal father would have

(1) all colour blind

(2) colour blind sons and normal/carrier daughters

(3) all normal

(4) colour blind sons and daughters

Ans: (2)

[1992]

Q1782. Down's syndrome is due to

(1) sex-linked inheritance

(2) crossing over

(3) nondisjunction of chromosomes

(4) linkage

Ans: (3)

[1992]

Q1783. In human beings 45 chromosomes/single X/ XO abnormality causes

- (1) Turner's syndrome
- (2) Down's syndrome
- (3) Edward's syndrome
- (4) Klinefelter's syndrome

Ans: (1)

[1992]

Q1784. A child of O-group has B-group father. The genotype of father will be

- (1) IA IB
- (2) IO IO
- (3) IB IO
- (4) IB IB

Ans: (3)

[1992]

Q1785. An allele is dominant if it is expressed in

- (1) heterozygous combination
- (2) both homozygous and heterozygous states
- (3) homozygous combination
- (4) second generation

Ans: (2)

[1992, 94]

Q1786. Nucleosome core is made of

- (1) H1, H2A, H2B, H3 and H4
- (2) H1, H2A, H2B and H3
- (3) H2A, H2B, H3 and H4
- (4) H1, H2A, H2B, H4

Ans: (3)

[1992]

Q1787. A polygenic inheritance in human beings is

- (1) Colour blindness
- (2) Skin colour
- (3) Sickle cell anaemia
- (4) Phenylketonuria

Ans: (2)

Q1788. Mendel studied inheritance of seven pairs of traits in Pea

which can have 21 possible combinations. If you are told that in one of these combinations, independent assortment is not observed in later studies, your reaction will be

- (1) It is impossible
- (2) Independent assortment principle may be wrong
- (3) Later studies may be wrong
- (4) Mendel might not have studied all the combinations

Ans: (4)

[1993]

Q1789. When a certain character is inherited only through female parent, it probably represents

- (1) incomplete dominance
- (2) multiple plastid inheritance
- (3) mendelian nuclear inheritance
- (4) cytoplasmic inheritance

Ans: (4)

Q1790. Out of 8 ascospores formed in Neurospora the arrangement is 2a: 4a: 2a showing

- (1) Second generation division
- (2) No crossing over
- (3) First generation division
- (4) Some meiosis

Ans: (1)

[1993]

Q1791. Of a normal couple, half the sons are haemophilic while half the daughters are carriers. The gene is located on

- (1) one X-chromosome of mother
- (2) X-chromosome of father
- (3) both the X-chromosomes of mother
- (4) Y-chromosome of father

Ans: (1)

[1993]

Q1792. Two dominant nonallelic genes are 50 map units apart. The linkage is

- (1) complete
- (2) cis type
- (3) absent/ Incomplete
- (4) trans type

Ans: (3)

[1993]

Q1793. Haploids are preferred over diploids for mutation studies because in haploids

- (1) mutations are readily induced
- (2) recessive mutations express immediately
- (3) tissue culture is easy
- (4) dominant mutations express immediately

Ans: (2)

[1993]

Q1794. Which crop variety is not due to induced mutations?

- (1) Sharbati Sonora of Wheat
- (2) Reimei of Rice
- (3) Aruna of Castor
- (4) Prabhat of Arhar

Ans: (3)

[1993]

Q1795. Sex is determined in human beings

- (1) 40 days after fertilization
- (2) by ovum
- (3) seventh to eight week when genitals differentiate in foetus
- (4) at time of fertilization

Ans: (4)

[1993]

Q1796. In a dihybrid cross $AABB \times aabb$, F_2 progeny of $AABB$, $AABb$, $AaBB$ and $AaBb$ occurs in the ratio of

- (1) 1: 2: 2: 1
- (2) 1: 1: 1: 1
- (3) 1 :2: 2: 4
- (4) 9: 3: 3: 1

Ans: (3)

[1993]

Q1797. A woman with albinic father marries an albinic man. The proportion of her progeny is

- (1) all albinic
- (2) 2 normal: 1 albinic
- (3) 1 normal: 1 albinic
- (4) all normal

Ans: (3)

[1993]

Q1798. Of both normal parents, the chance of a male child becoming colour blind are

- (1) possible only when father's mother was colour blind
- (2) no
- (3) possible only when mother's father was colour blind
- (4) possible only when all the four grand parents had normal vision

Ans: (3)

[1993]

Q1799. Mr. Kapoor has Bb autosomal gene pair and d allele sex-linked. What shall be proportion of Bd in sperms

- (1) 1/4
- (2) Zero
- (3) 1/8
- (4) 1/2

Ans: (1)

[1994]

Q1800. Which of the following is suitable for experiment on linkage

- (1) AaBb × AaBb
- (2) aaBB × aaBB
- (3) AAbb × AaBB
- (4) AABB × aabb

Ans: (4)

[1994]

Q1801. Genes located on Y-chromosome are

- (1) autosomal genes

- (2) mutant genes
- (3) holandric genes
- (4) sex-linked genes

Ans: (3)

[1994]

Q1802. A fruitfly exhibiting both male and female traits is

- (1) hemizygous
- (2) heterozygous
- (3) gynander
- (4) gynandromorph

Ans: (4)

[1994]

Q1803. A child of blood group O can not have parents of blood groups

- (1) B and B
- (2) AB and AB/O
- (3) O and O
- (4) A and B

Ans: (2)

[1994]

Q1804. A cross between pure tall Pea plant with green pods and dwarf Pea plant with yellow pods will produce short F₂ plants out of 16

- (1) 4
- (2) 9
- (3) 1
- (4) 3

Ans: (1)

[1994]

Q1805. The process of mating between closely related individuals is

- (1) hybridisation
- (2) self breeding
- (3) heterosis
- (4) inbreeding

Ans: (4)

[1994]

Q1806. The change of the light-coloured variety of peppered moth (*Biston betularia*) to its darker variety (*Biston carbonaria*) is due to

- (1) genetic isolation
- (2) mutation
- (3) temporal isolation
- (4) regeneration

Ans: (2)

[1995]

Q1807. The most striking example of point mutation is found in a disease called

- (1) down's syndrome
- (2) thalassemia
- (3) sickle cell anaemia
- (4) night blindness

Ans: (3)

[1995]

Q1808. The polytene chromosomes were discovered for the first time in

- (1) *Musca nebulosa*
- (2) *Drosophila*
- (3) *Musca domestica*
- (4) *Chironomus*

Ans: (4)

[1995]

Q1809. Barr body in mammals represents

- (1) all heterochromatin in male and female cells
- (2) all the heterochromatin in female cells
- (3) one of the two X-chromosomes in somatic cells of females
- (4) Y-chromosomes in somatic cells of male

Ans: (3)

[1995]

Q1810. When two genetic loci produce identical phenotypes in cis

and trans position, they are considered to be

- (1) multiple alleles
- (2) pseudoalleles
- (3) parts of same gene
- (4) different genes

Ans: (2)

[1995]

Q1811. A man with a certain disease marries a normal woman. They have eight children (3 daughters and 5 sons). All the daughters suffer from their father's disease but none of the sons are affected. Which of the following mode of inheritance do you suggest for this disease?

- (1) Autosomal dominant
- (2) Sex-linked recessive [1996, 2005]
- (3) Sex-limited recessive
- (4) Sex-linked dominant

Ans: (4)

Q1812. A person with 47 chromosomes due to an additional Y chromosome suffers from a condition called

- (1) Turner's syndrome
- (2) Down's syndrome
- (3) Klinefelter's syndrome
- (4) Superfemale

Ans: (3)

[1996]

Q1813. Barr body in human female is formed by

- (1) inactivation of both X-chromosomes
- (2) inactivation of paternal X-chromosome
- (3) inactivation of either the paternal or maternal X-chromosome
- (4) inactivation of maternal X-chromosome

Ans: (3)

[1996]

Q1814. An individual exhibiting both male and female sexual characteristics in the body is known as

- (1) gynandromorph
- (2) hermaphrodite
- (3) bisexual
- (4) intersex

Ans: (1)

[1996]

Q1815. Alleles that produce independent effects in their heterozygous condition are called

- (1) complementary alleles
- (2) codominant alleles
- (3) supplementary alleles
- (4) epistatic alleles

Ans: (2)

Q1816. A person with the sex chromosomes XXY suffers from

- (1) Turner's syndrome
- (2) Down's syndrome
- (3) Gynandromorphism
- (4) Klinefelter's syndrome

Ans: (4)

[1996]

Q1817. Genetic identity of a human male is determined by

- (1) sex chromosomes
- (2) autosomes
- (3) cell organelles
- (4) nucleolus

Ans: (1)

[1997]

Q1818. After crossing between two plants, the progenies are found to be male-sterile. This phenomenon is found to be maternally inherited and is due to some genes which are present in

- (1) mitochondrion
- (2) nucleus
- (3) cytoplasm
- (4) chloroplast

Ans: (3)

[1997]

Q1819. A fruit fly is heterozygous for sex-linked genes. When mated with a normal female fruit fly, the male-specific chromosome will enter egg cells in the proportion of

- (1) 3: 1
- (2) 1: 1
- (3) 7: 1
- (4) 1: 2

Ans: (2)

[1997]

Q1820. H.J.Muller was awarded Nobel Prize for his

- (1) work on gene mapping in *Drosophila*
- (2) discovery that chemicals can induce gene mutations
- (3) efforts to prevent the use of nuclear weapons.
- (4) discovery that ionizing radiations can induce gene mutations

Ans: (4)

[1997]

Q1821. Albinism is known to be due to an autosomal recessive mutation. The first child of a couple with normal skin pigmentation was an albino. What is the probability that their second child will also be an albino?

- (1) 75%
- (2) 25%
- (3) 100%
- (4) 50%

Ans: (2)

[1998]

Q1822. A woman with two genes for haemophilia and a gene for colour blindness on one of the 'X' chromosomes marries a normal man. How will the progeny be

- (1) 50% haemophilic daughters and 50% colour-blind daughters
- (2) haemophilic and colour-blind daughters
- (3) All sons and daughters haemophilic and colour-blind
- (4) 50% haemophilic, colour-blind sons and 50% haemophilic sons

Ans: (4)

Q1823. The formation of multivalents at meiosis in a diploid organism is due to

- (1) monosomy
- (2) inversion
- (3) reciprocal translocation
- (4) deletion

Ans: (3)

[1998]

Q1824. Mental retardation in man associated with sex chromosomal abnormality is usually due to

- (1) large increase in Y complement
- (2) increase in X complement
- (3) reduction in X complement
- (4) moderate increase in Y complement

Ans: (2)

[1998]

Q1825. In Down's syndrome, Karyotyping has shown that the disorder is associated with trisomy of chromosome number-21 usually due to

- (1) non-disjunction during formation of eggcells and sperm-cells
- (2) non-disjunction during egg-cell formation
- (3) addition of extra chromosome during mitosis of the zygote
- (4) non-disjunction during sperm-cell formation

Ans: (1)

[1998]

Q1826. Molecular weight of chromosome of yeast cell is

- (1) 0.5×10^9
- (2) 2.56×10^9
- (3) 1×10^9
- (4) 40×10^9

Ans: (2)

[1998]

Q1827. How many different types of genetically different gametes

will be produced by a heterozygous plant having the genotype:
AABbCc?

- (1) Six
 - (2) Two
 - (3) Nine
 - (4) Four
- Ans: (4)

[1998]

Q1828. If Mendel had studied the 7 traits using a plant with 12 chromosomes instead of 14, in what way would his interpretation have been different?

- (1) He would have discovered sex linkage
 - (2) He would have discovered blending or incomplete dominance
 - (3) He could have mapped the chromosome
 - (4) He would not have discovered the law of independent assortment
- Ans: (4)

[1998]

Q1829. How many genome types are present in a typical green plant cell?

- (1) More than five
 - (2) Two
 - (3) More than ten
 - (4) Three
- Ans: (4)

[1998]

Q1830. Crossing over in diploid organism is responsible for

- (1) linkage between genes
 - (2) segregation of alleles
 - (3) recombination of linked alleles
 - (4) dominance of genes
- Ans: (3)

[1999]

Q1831. Red-green colour blindness in humans is governed by a sex-linked recessive gene. A normal woman whose father was

colour blind marries a colour blind man. What proportion of their daughters is expected to be colourblind?

- (1) $1/4$
- (2) $3/4$
- (3) All
- (4) $1/2$

Ans: (4)

[1999]

Q1832. One child is haemophilic (sex-linked trait), while its fraternal twin brother is normal. Which one of the following informations is most appropriate?

- (1) The other child is a female and the father is haemophilic
- (2) The mother must have been heterozygous
- (3) The haemophilic child is a male
- (4) The child is a monozygotic twin

Ans: (2)

[1999]

Q1833. Phenomenon of 'Industrial melanism' demonstrates

- (1) geographical isolation
- (2) natural selection
- (3) reproductive isolation
- (4) induced mutation

Ans: (2)

[1999]

Q1834. In hybridisation $Tt \times tt$ gives rise to the progeny of ratio

- (1) 2 : 1
- (2) 1 : 1
- (3) 1 : 2 : 1
- (4) 1 : 2

Ans: (2)

[1999]

Q1835. Which of the following is the main category of mutation?

- (1) Somatic mutation
- (2) Genetic mutation
- (3) All of these

(4) Zygotic mutation

Ans: (2)

Q1836. Which character studied by Mendel in garden pea (*Pisum sativum*) was dominant

- (1) Green seed colour
- (2) Wrinkled seed shape
- (3) Terminal flower position
- (4) Green pod colour

Ans: (4)

[1999]

Q1837. Which one pair of the following parents is most likely to get a child who suffer from hemolytic disease of new born?

- (1) Rh-negative mother and Rh-negative father
- (2) Rh-negative mother and Rh-positive father
- (3) Rh-positive mother and Rh-positive father
- (4) Rh-positive mother and Rh-negative father

Ans: (2)

[2000]

Q1838. Mongoloid idiocy in humans is also known as

- (1) Down's Syndrome
- (2) Tay Sachs disease
- (3) Turner's Syndrome
- (4) Klinefelter's syndrome

Ans: (1)

Q1839. *Drosophila* flies with XXY genotype are females but in case of humans, such individuals are abnormal males (Klinefelter's syndrome). This indicates that

- (1) The Y chromosome is male determining in humans
- (2) The Y chromosome has no role in sex determination
- (3) The Y chromosome is female determining in *Drosophila*
- (4) In *Drosophila*, the Y chromosome is essential for sex determination

Ans: (1)

[2000]

Q1840. How many base pairs are found in one genome of man?

- (1) 3×10^9
- (2) 7×10^4
- (3) 4×10^9
- (4) 2.8×10^7

Ans: (1)

[2000]

Q1841. Forthcoming generation are less adaptive than their parental generation due to

- (1) genetic drift
- (2) natural selection
- (3) adaptation
- (4) mutation

Ans: (4)

Q1842. Ratio of complementary genes

- (1) 9: 3: 3: 4
- (2) 9: 3: 4
- (3) 9: 7
- (4) 12: 3: 1

Ans: (3)

[2001]

Q1843. When dominant and recessive alleles express itself together it is called

- (1) amphidominance
- (2) codominance
- (3) pseudodominance
- (4) dominance

Ans: (2)

[2001]

Q1844. Independent assortment of genes does not take place when

- (1) genes are located on nonhomologous chromosomes
- (2) genes are located on homologous chromosomes
- (3) all the above
- (4) genes are linked and located on same chromosomes

Ans: (4)

[2001]

Q1845. In a certain plant, red fruit (R) is dominant over yellow fruit (r) and tallness (T) is dominant over shortness (t). If a plant with RRTt genotype is crossed with a plant rrtt genotype, what will be the percentage of tall plants with red fruits in the progeny?

- (1) 75%
- (2) 50%
- (3) 25%
- (4) 100% [2000, 04]

Ans: (2)

[2001]

Q1846. In humans, male XXY and female XXXX occur due to

- (1) autosomal syndrome
- (2) aneuploidy
- (3) none of these
- (4) euploidy

Ans: (4)

[2001, 04]

Q1847. A and B genes are linked what shall be genotype of progeny in a cross between AB/ab and ab/ab?

- (1) AABB and aabb
- (2) AAbb and aabb
- (3) None of these
- (4) AaBb and aabb

Ans: (4)

[2001]

Q1848. Probability of four sons to a couple is

- (1) 1/16
- (2) 1/4
- (3) 1/32
- (4) 1/8

Ans: (1)

[2001]

Q1849. Two non-allelic genes produce new phenotype when

present together but fail to do so independently are called?

- (1) Non-complimentary genes
- (2) Epistasis
- (3) Complimentary genes
- (4) Polygene

Ans: (3)

[2001]

Q1850. Extranuclear inheritance occurs in

- (1) mitochondria and ribosome
- (2) peroxisome and ribosome
- (3) chloroplast and lysosome
- (4) chloroplast and mitochondria

Ans: (4)

[2001]

Q1851. A gene is said to be dominant if

- (1) it expresses its effect both in homozygous and heterozygous condition
- (2) it expresses its effect only in homozygous state
- (3) it never expresses its effect in any conditions
- (4) it expresses its effect only in heterozygous condition

Ans: (1)

[2001]

Q1852. Which of the following is an example of pleiotropic effect?

- (1) Sickle cell anaemia
- (2) Haemophilia
- (3) Colour blindness
- (4) Thalassemia

Ans: (1)

[2002]

Q1853. Which of the following is an example of sex linked disease?

- (1) Syphilis
- (2) AIDS
- (3) Gonorrhoea
- (4) Colour blindness

Ans: (4)

[2002]

Q1854. Which of the following is correct match?

- (1) Haemophilia — Y-chromosome
- (2) Down's syndrome — 21st chromosome
- (3) Parkinson disease — X & Y chromosome
- (4) Sickle cell anaemia — X-chromosome

Ans: (2)

[2002]

Q1855. No. of barr body present in each somatic cell of a female is

- (1) 3
- (2) 1
- (3) 4
- (4) 2

Ans: (2)

[2002]

Q1856. Genes for cytoplasmic male sterility in plants are generally located in

- (1) mitochondrial genome
- (2) cytosol
- (3) nuclear genome
- (4) chloroplast genome

Ans: (2)

[2002]

Q1857. In *Drosophila*, the sex is determined by

- (1) X and Y chromosomes
- (2) whether the egg is fertilized or develops parthenogenetically
- (3) the ratio of pairs of X-chromosomes to the pairs of autosomes
- (4) the ratio of number of X-chromosomes to the sets of autosomes

Ans: (4)

[2002]

Q1858. There are three genes a, b, c. Percentage of crossing over between a and b is 20%, b and c is 28% and a and c is 8%. What is the sequence of genes on chromosome?

- (1) a, c, b
- (2) b, a, c
- (3) none of these
- (4) a, b, c

Ans: (2)

[2002]

Q1859. On selfing a plant of F1 generation with genotype “AABbCC”, the genotypic ratio in F2 generation will be

- (1) 9: 3: 3: 1
- (2) 3: 1
- (3) 27: 9: 9: 9: 3: 3: 3: 1
- (4) 1: 2: 1

Ans: (4)

[2003]

Q1860. A diseased man marries a normal woman. They have three daughters and five sons. All the daughters were diseased and sons were normal. The gene of this disease is

- (1) sex-linked character
- (2) sex-linked dominant
- (3) autosomal dominant
- (4) sex-linked recessive

Ans: (2)

[2003, 05]

Q1861. The linkage map of X-chromosome of fruit fly has 66 units, with yellow body gene (y) at one end and bobbed hair

- (1) 66%
- (2) gene at the other end. The recombination frequency between these two genes (y and b) should be
- (3) > 50%
- (4) 100%

Ans: (4)

[2003]

Q1862. Two crosses between the same pair of genotypes or phenotypes in which the source of the gametes are reversed in one cross, is known as

- (1) reciprocal cross
- (2) reverse cross
- (3) dihybrid cross
- (4) test cross

Ans: (1)

Q1863. The genes controlling the seven pea characters studied by Mendel are now known to be located on how many different chromosomes?

- (1) Six
- (2) Four
- (3) Five
- (4) Seven

Ans: (2)

Q1864. Which one of the following traits of garden pea studied by Mendel was a recessive feature?

- (1) Green seed colour
- (2) Round seed shape
- (3) Green pod colour
- (4) Axial flower position

Ans: (1)

[2003]

Q1865. *Nicotiana sylvestris* flowers only during long days and *N. tabacum* flowers only during short days. If raised in the laboratory under different photoperiods, they can be induced to flower at the same time and can be cross fertilized to produce self – fertile offspring. What is the best reason for considering *N. sylvestris* and *N. tabacum* to be separate species?

- (1) They are reproductively distinct
- (2) They are morphologically distinct
- (3) They are physiologically distinct
- (4) They cannot interbreed in nature

Ans: (1)

Q1866. The recessive genes located on X-chromosome in humans

are always

- (1) expressed in males
- (2) lethal
- (3) expressed in females
- (4) sub-lethal

Ans: (1)

[2003]

Q1867. Lack of independent assortment of two genes A and B in fruit fly *Drosophila* is due to

- (1) linkage
- (2) repulsion
- (3) crossing over
- (4) recombination

Ans: (1)

[2003]

Q1868. Down's syndrome is caused by an extra copy of chromosome number 21. What percentage of offspring produced by an affected mother and a normal father would be affected by this disorder?

- (1) 75%
- (2) 25%
- (3) 50%
- (4) 100%

Ans: (3)

[2003]

Q1869. Pattern baldness, moustaches and beard in human males are examples of

- (1) sex limited traits
- (2) sex-determining traits
- (3) sex differentiating traits
- (4) sex linked traits

Ans: (3)

[2004]

Q1870. Christmas disease is another name for

- (1) hepatitis B

- (2) sleeping sickness
- (3) Down's syndrome
- (4) haemophilia

Ans: (4)

[2004]

Q1871. After a mutation at a genetic locus the character of an organism changes due to the change in

- (1) protein synthesis pattern
- (2) protein structure
- (3) RNA transcription pattern
- (4) DNA replication

Ans: (2)

[2004]

Q1872. A self-fertilizing trihybrid plant forms

- (1) 8 different gametes and 16 different zygotes
- (2) 8 different gametes and 64 different zygotes
- (3) 8 different gametes and 32 different zygotes
- (4) 4 different gametes and 16 different zygotes

Ans: (2)

[2004]

Q1873. One of the parents of a cross has a mutation in its mitochondria. In that cross, that parent is taken as a male. During segregation of F₂ progenies that mutation is found in

- (1) all the progenies
- (2) one-third of the progenies
- (3) fifty percent of the progenies
- (4) none of the progenies

Ans: (4)

[2004]

Q1874. A normal woman, whose father was colourblind is married to a normal man. The sons would be

- (1) all normal
- (2) 75% colour-blind
- (3) all colour-blind
- (4) 50% color-blind

Ans: (4)

[2004]

Q1875. A male human is heterozygous for autosomal genes A and B and is also hemizygous for hemophilic gene h. What proportion of his sperms will be abh?

- (1) 1/16
- (2) 1/8
- (3) 1/4
- (4) 1/32

Ans: (2)

[2004]

Q1876. A woman with normal vision, but whose father was colour blind, marries a colour blind man. Suppose that the fourth child of this couple was a boy. This boy

- (1) must have normal colour vision
- (2) may be colour blind or may be of normal vision
- (3) will be partially colour blind since he is heterozygous for the colour blind mutant allele
- (4) must be colour blind

Ans: (2)

[2005]

Q1877. G-6-P dehydrogenase deficiency is associated with haemolysis of:

- (1) platelets
- (2) leucocytes
- (3) rBCs
- (4) lymphocytes

Ans: (3)

[2005]

Q1878. The salivary gland chromosomes in the dipteran larvae, are useful in gene mapping because:

- (1) these are easy to stain
- (2) these are fused
- (3) They have endoreduplicated chromosomes.
- (4) these are much longer in size

Ans: (3)

[2005]

Q1879. At a particular locus, frequency of 'A' allele is 0.6 and that of 'a' is 0.4. What would be the frequency of heterozygotes in a random mating population at equilibrium?

- (1) 0.24
- (2) 0.36
- (3) 0.48
- (4) 0.16

Ans: (3)

[2005]

Q1880. In order to find out the different types of gametes produced by a pea plant having the genotype AaBb, it should be crossed to a plant with the genotype:

- (1) aabb
- (2) AABB
- (3) aaBB
- (4) AaBb

Ans: (1)

[2005]

Q1881. Which one of the following is an example of polygenic inheritance?

- (1) Skin colour in humans
- (2) Production of male honey bee
- (3) Flower colour in *Mirabilis jalapa*
- (4) Pod shape in garden pea

Ans: (1)

[2005]

Q1882.

Ans: (1)

[2005]

Q1883. A woman with 47 chromosomes due to three copies of chromosome 21 is characterized by:

- (1) Turner's syndrome

- (2) superfemaleness
- (3) down's Syndrome 136.If a colour blind woman marries a normal visioned man, their sons will be

(4) triploidy

Ans: (3)

Q1884. Haemophilia is more commonly seen in human males than in human females because:

- (1) this disease is due to an X-linked recessive mutation
- (2) a greater proportion of girls die in infancy
- (3) this disease is due to an X-linked dominant mutation
- (4) this disease is due to a Y-linked recessive mutation

Ans: (1)

Q1885. Which of the following is not a hereditary disease?

- (1) Haemophilia
- (2) Cystic fibrosis
- (3) Cretinism
- (4) Thalassemia

Ans: (3)

[2006]

Q1886. Test cross involves

- (1) crossing between two genotypes with dominant trait
- (2) crossing between two F1 hybrids
- (3) crossing between two genotypes with recessive trait
- (4) crossing the F1 hybrid with a double recessive genotype

Ans: (4)

[2006]

Q1887. In Mendel's experiment with garden pea, round seed shape (RR) was dominant over wrinkled seeds (rr), yellow cotyledon (YY) was dominant over green cotyledon (yy). What are the expected phenotypes in the F₂ generation of the cross RRY₂ × rryy?

- (1) Round seeds with yellow cotyledons, and wrinkled seeds with yellow cotyledons
- (2) only wrinkled seeds with yellow cotyledons

- (3) only round seeds with green cotyledons
- (4) only wrinkled seeds with green cotyledons

Ans: (1)

[2006]

Q1888. Sickle cell anaemia has not been eliminated from the African population because

- (1) it is controlled by dominant genes
- (2) it is not a fatal disease
- (3) it is controlled by recessive genes
- (4) it provides immunity against malaria

Ans: (4)

[2006]

Q1889. Both sickle cell anemia and Huntington's chorea are

- (1) virus-related diseases
- (2) congenital disorders
- (3) bacteria - related diseases
- (4) pollutant-induced disorders

Ans: (2)

[2006]

Q1890. Cri-du-chat syndrome in humans is caused by the

- (1) trisomy of 21st chromosome
- (2) loss of half of the short arm of chromosome 5
- (3) fertilization of an XX egg by a normal Y-bearing sperm
- (4) loss of half of the long arm of chromosome 5

Ans: (2)

[2006]

Q1891. In pea plants, yellow seeds are dominant to green. If a heterozygous yellow seeded plant is crossed with a green seeded plant, what ratio of yellow and green seeded plants would you expect in F1 generation?

- (1) 3: 1
- (2) 9: 1
- (3) 50 :50
- (4) 1: 3

Ans: (3)

Q1892. Two genes R and Y are located very close on the chromosomal linkage map of maize plant. When RRYY and rryy genotypes are hybridized, the F₂ segregation will show

- (1) higher number of the parental types
- (2) segregation in the expected 9: 3: 3: 1 ratio
- (3) higher number of the recombinant types.
- (4) segregation in 3: 1 ratio

Ans: (1)

[2006]

Q1893. A common test to find the genotype of a hybrid is by

- (1) crossing of one F₁ progeny with male parent
- (2) crossing of one F₂ progeny with female parent
- (3) crossing of one F₂ progeny with male parent.
- (4) studying the sexual behaviour of F₁ progenies

Ans: (1)

[2007]

Q1894. How many different kinds of gametes will be produced by a plant having the genotype AABbCC?

- (1) Two
- (2) Four
- (3) Three
- (4) Nine

Ans: (1)

[2007]

Q1895. Phenotype of an organism is the result of

- (1) genotype and environment interactions
- (2) cytoplasmic effects and nutrition
- (3) mutations and linkages
- (4) environmental changes and sexual dimorphism

Ans: (1)

[2007]

Q1896.

Ans: (2)

[2007]

Q1897. Which one of the following conditions in humans. is

correctly matched with its chromosomal abnormality/linkage?

- (1) Erythroblastosis foetalis - X-linked
- (2) Klinefelters syndrome-44 autosomes + XXY
- (3) Downs syndrome - 44 autosomes + XO
- (4) Colour blindness - Y-linked

Ans: (2)

[2007]

Q1898. A human male produces sperms with the genotypes AB, Ab, aB, and ab pertaining to two diallelic characters in equal proportions. What is the corresponding genotype of this person?

- (1) AABB
- (2) AaBB
- (3) AaBb
- (4) AABb

Ans: (3)

[2007]

Q1899. Inheritances of skin colour in humans is an example of

- (1) codominance
- (2) point mutation
- (3) chromosomal aberration.
- (4) polygenic inheritance

Ans: (4)

[2008]

Q1900. The two polynucleotide chains in DNA are]

- (1) semi-conservative
- (2) discontinuous
- (3) parallel.
- (4) antiparallel

Ans: (4)

Q1901. Which one of the following cannot be explained on the basis of Mendel's Law of Dominance?

- (1) Alleles do not show any blending and both the characters recover as such in F₂ generation.
- (2) The discrete unit controlling a particular character is called a factor
- (3) Factors occur in pairs

(4) Out of one pair of factors one is dominant, and the other recessive
Ans: (1)

[2009]

Q1902. Point mutation involves:

- (1) deletion
- (2) change in single base pair
- (3) insertion
- (4) duplication

Ans: (2)

[2009]

Q1903. Select the incorrect statement from the following:

- (1) Baldness is a sex -limited trait
- (2) Galactosemia is an inborn error of metabolism
- (3) Linkage is an exception to the principle of independent assortment in heredity
- (4) Small population size results in random genetic drift in a population

Ans: (1)

[2009]

Q1904. Sickle cell anaemia is:

- (1) characterized by elongated sickle like RBCs with a nucleus
- (2) caused by substitution of valine by glutamic acid in the beta globin chain of haemoglobin
- (3) an autosomal linked dominant trait
- (4) caused by a change in a single base pair of DNA

Ans: (4)

[2009]

Q1905. The genetic defect - Adenosine deaminase (ADA) deficiency may be cured permanently by:

- (1) enzyme replacement therapy.
- (2) administering adenosine deaminase activators.
- (3) periodic infusion of genetically engineered lymphocytes having functional ADA cDNA.
- (4) introducing bone marrow cells producing ADA into cells at early embryonic stages.

Ans: (4)

[2010]

Q1906. Which one of the following conditions correctly describes the manner of determining the sex in the given example?

- (1) XO condition in human as found in Turner syndrome, determines female sex.
- (2) Homozygous sex chromosomes (ZZ) determine female sex in birds.
- (3) Homozygous sex chromosomes (XX) produce male in Drosophila.
- (4) XO type of sex chromosomes determine male sex in grasshopper

Ans: (4)

[2010]

Q1907. Infectious proteins are present in:

- (1) Viroids
- (2) Gemini viruses
- (3) Satellite viruses
- (4) Prions

Ans: (4)

[2010]

Q1908.

Ans: (2)

Q1909. Select the correct statement from the ones given below with respect to dihybrid cross.

- (1) Genes loosely linked on the same chromosome show similar recombinations as the tightly linked ones
- (2) Tightly linked genes on the same chromosome show higher recombinations
- (3) Tightly linked genes on the same chromosome show very few recombinations
- (4) Genes far apart on the same chromosome show very few recombinations

Ans: (3)

[2010]

Q1910. The genotype of a plant showing the dominant phenotype can be determined by:

- (1) pedigree analysis
- (2) test cross

- (3) back cross
 - (4) dihybrid cross
- Ans: (2)

[2011]

Q1911. The unequivocal proof of DNA as the genetic material came from the studies on a

- (1) viroid
 - (2) bacterium
 - (3) bacterial virus
 - (4) fungus
- Ans: (3)

[2011]

Q1912. Test cross in plants or in *Drosophila* involves crossing

- (1) the F1 hybrid with a double recessive genotype.
- (2) between two genotypes with recessive trait
- (3) between two genotypes with dominant trait
- (4) between two F1 hybrids

Ans: (1)

[2011]

Q1913. A person with unknown blood group under ABO system, has suffered much blood loss in an accident and needs immediate blood transfusion. His one friend who has a valid certificate of his own blood type offers blood donation without delay. What would have been the type of blood group of the donor friend?

- (1) Type O
- (2) Type B
- (3) Type A
- (4) Type AB

Ans: (1)

[2011]

Q1914. Mutations can be induced with:

- (1) ethylene
- (2) infra red radiations
- (3) gamma radiations
- (4) I AA

Ans: (3)

[2011M]

Q1915. When two unrelated individuals or lines are crossed, the performance of F1 hybrid is often superior to both parents. This phenomenon is called:

- (1) splicing
- (2) heterosis
- (3) metamorphosis
- (4) transformation

Ans: (2)

[2011M]

Q1916. A test cross is carried out to

- (1) assess the number of alleles of a gene.
- (2) determine the genotype of a plant at F2.
- (3) determine whether two species or varieties will breed successfully.
- (4) predict whether two traits are linked.

Ans: (2)

[2011M]

Q1917. Which one of the following is a wrong statement regarding mutations?

- (1) UV and Gamma rays are mutagens.
- (2) Deletion and insertion of base pairs cause frame-shift mutations.
- (3) Change in a single base pair of DNA does not cause mutation.
- (4) Cancer cells commonly show chromosomal aberrations.

Ans: (3)

[2012]

Q1918. A normal- visioned man whose father was colour. blind, marries a woman whose father was also colour blind. They have their first child as a daughter. what are the chance that this child would be colour blind?

- (1) 25%
- (2) 100%
- (3) 50%
- (4) zero percent

Ans: (4)

[2012]

Q1919. A certain road accident patient with unknown blood group needs immediate blood transfusion. His one doctor friend at once offers his blood. What was the blood group of the donor?

- (1) Blood group O
- (2) Blood group B
- (3) Blood group A
- (4) Blood group AB

Ans: (1)

[2012M]

Q1920. Which one of the following conditions of the zygotic cell would lead to the birth of a normal human female child?

- (1) Only one X chromosome
- (2) Two X chromosomes
- (3) One X and one Y chromosome
- (4) Only one Y chromosome

Ans: (2)

[2012M]

Q1921. Which of the following statements is not true of two genes that show 50% recombination frequency?

- (1) If the genes are present on the same chromosome, they undergo more than one crossovers in every meiosis
- (2) The genes are tightly linked
- (3) The genes may be on different chromosomes
- (4) The genes show independent assortment

Ans: (2)

Q1922. If both parents are carriers for thalassemia, which is an autosomal recessive disorder, what are the chances of pregnancy resulting in an affected child?

- (1) 100%
- (2) 50%
- (3) no chance
- (4) 25%

Ans: (4)

[NEET 2013]

Q1923. Which Mendelian idea is depicted by a cross in which the F1 generation resembles both the parents?

- (1) Co-dominance
- (2) Law of dominance
- (3) Incomplete dominance
- (4) Inheritance of one gene

Ans: (1)

[NEET 2013]

Q1924. If two persons with 'AB' blood group marry and have sufficiently large number of children these children could be classified as 'A' blood group: 'AB' blood group: 'B' blood group in 1: 2: 1 ratio. Modern technique of protein electrophoresis reveals presence of both 'A' and 'B' type proteins in 'AB' blood group individuals. This is an example of:

- (1) Complete dominance
- (2) incomplete dominance
- (3) Codominance
- (4) Partial dominance

Ans: (3)

[NEET 2013]

Q1925.

Ans: (4)

[NEET 2013]

Q1926. Down's syndrome in humans is due to

- (1) Three copies of chromosome 21
- (2) Two 'Y' chromosomes
- (3) Monosomy
- (4) Three 'X' chromosomes

Ans: (1)

[NEET 2013]

Q1927. In our society women are blamed for producing female children. Choose the correct answer for the sex-determination in humans

(1) Due to the genetic make up of the particular sperm which fertilizes the egg

(2) Due to some defect in the women

(3) Due to the genetic make up of the egg

(4) Due to some defect like aspermia in man

Ans: (1)

[NEET Kar. 2013]

Q1928. Which one is the incorrect statement with regards to the importance of pedigree analysis?

(1) It helps to understand whether the trait in question is dominant or recessive

(2) It helps to trace the inheritance of a specific trait

(3) It confirms that the trait is linked to one of the autosome

(4) It confirms that DNA is the carrier of genetic information

Ans: (4)

[NEET Kar. 2013]

Q1929. Genetic variation in a population arises due to

(1) Mutations as well as recombination

(2) Mutations only

(3) Reproductive isolation and selection

(4) Recombination only

Ans: (1)

[NEET Kar. 2013]

Q1930. The incorrect statement with regard to Haemophilia is:

(1) A single protein involved in the clotting of blood is affected

(2) It is a recessive disease

(3) It is a sex-linked disease

(4) It is a dominant disease

Ans: (4)

[NEET Kar. 2013]

Q1931. The process of transfer of genetic information from DNA to RNA/formation of RNA from DNA is

(1) translation

(2) transversion

(3) translocation

(4) transcription

Ans: (4)

[1988]

Q1932. A nucleotide is formed of

(1) nitrogen base, sugar and phosphate

(2) purine, pyrimidine and phosphate

(3) pyrimidine, sugar and phosphate

(4) purine, sugar and phosphate

Ans: (1)

[1989, 2000]

Q1933. In the genetic dictionary, there are 64 codons as

(1) there are 44 nonsense codons and 20 sense codons

(2) 64 amino acids are to be coded

(3) genetic code is triplet.

(4) 64 types of tRNAs are present

Ans: (3)

[1990]

Q1934. DNA replication is

(1) semiconservative and discontinuous

(2) conservative and discontinuous

(3) conservative

(4) semiconservative and semidiscontinuous

Ans: (4)

[1991]

Q1935. Genetic code consists of

(1) cytosine and guanine

(2) adenine and guanine

(3) all the above

(4) cytosine and uracil

Ans: (3)

[1991]

Q1936. A DNA with unequal nitrogen bases would most probably be

(1) triple stranded

(2) single stranded

- (3) four stranded
 - (4) double stranded
- Ans: (2)

[1992]

Q1937. Nucleotide arrangement in DNA can be seen by

- (1) ultracentrifuge
- (2) X-ray crystallography
- (3) light microscope
- (4) electron microscope

Ans: (2)

Q1938. Experimental material in the study of DNA replication has been

- (1) Pneumococcus
- (2) Escherichia coli
- (3) Drosophila melanogaster
- (4) Neurospora crassa

Ans: (2)

[1992]

Q1939. Khorana first deciphered the triplet codons of

- (1) tyrosine and tryptophan
- (2) serine and isoleucine
- (3) phenylalanine and methionine
- (4) cysteine and valine

Ans: (4)

[1993]

Q1940. Escherichia coli fully labelled with ^{15}N is allowed to grow in ^{14}N medium. The two strands of DNA molecule of the first generation bacteria have

- (1) same density and resemble parent DNA
- (2) different density and do not resemble parent DNA
- (3) same density but do not resemble parent DNA
- (4) different density but resemble parent DNA

Ans: (2)

[1993]

Q1941. The transforming principle of Pneumococcus as found out by Avery, MacLeod and McCarty was

- (1) protein
- (2) mRNA
- (3) polysaccharide
- (4) DNA

Ans: (4)

[1993]

Q1942. Who proved that DNA is basic genetic material?

- (1) Boveri and Sutton
- (2) Griffith
- (3) Hershey and Chase
- (4) Watson

Ans: (3)

[1993]

Q1943. Because most of the amino acids are represented by more than one codon, the genetic code is

- (1) degenerate
- (2) overlapping
- (3) generate
- (4) wobbling

Ans: (1)

[1993]

Q1944. During DNA replication, the strands separate by

- (1) unwindase/Helicase
- (2) DNA polymerase
- (3) gyrase
- (4) topoisomerase

Ans: (1)

[1993]

Q1945. The process of translation is

- (1) dNA synthesis
- (2) ribosome synthesis
- (3) rNA synthesis
- (4) protein synthesis

Ans: (4)

Q1946. In *Escherichia coli*, lac operon is induced by

- (1) β -galactosidase
- (2) lactose
- (3) I-gene
- (4) promoter gene

Ans: (2)

[1993, 94, 99, 2000]

Q1947. DNA template sequence of CTGATAGC is transcribed over mRNA as

- (1) GAUTATUG
- (2) GUCTUTCG
- (3) UACTATCU
- (4) GACUAUCG

Ans: (4)

[1994]

Q1948. Which is not involved in protein synthesis?

- (1) Elongation
- (2) Transcription
- (3) Termination
- (4) Initiation

Ans: (3)

Q1949. Protein helping in opening of DNA double helix in form of replication fork is

- (1) DNA ligase
- (2) DNA gyrase
- (3) DNA topoisomerase
- (4) DNA polymerase I

Ans: (2)

[1994, 95, 2004]

Q1950. Initiation codon of protein synthesis (in eucaryotes) is

- (1) CCA
- (2) GUA
- (3) AUG

(4) GCA
Ans: (3)

[1994]

Q1951. In split genes, the coding sequences are called

- (1) exons
- (2) introns
- (3) cistrons
- (4) operons

Ans: (1)

[1994]

Q1952. The wild type *E. coli* cells are growing in normal medium with glucose. They are transferred to a medium containing only lactose as sugar. Which of the following changes takes place?

- (1) The lac operon is induced
- (2) The lac operon is repressed
- (3) *E. coli* cells stop dividing
- (4) All operons are induced

Ans: (1)

[1994]

Q1953. Out of A-T, G-C pairing, bases of DNA may exist in alternate valency state owing to arrangement called

- (1) frame-shift mutation
- (2) analogue substitution
- (3) point mutation
- (4) tautomerisational mutation

Ans: (4)

[1994]

Q1954. The number of base substitution possible in amino acid codons is

- (1) 535
- (2) 261
- (3) 549
- (4) 264

Ans: (3)

[1995]

Q1955. Reverse transcriptase is

- (1) DNA dependent DNA polymerase
- (2) RNA dependent RNA polymerase
- (3) RNA dependent DNA polymerase
- (4) DNA dependent RNA polymerase

Ans: (3)

Q1956. The translation termination triplet is

- (1) UAC
- (2) UAU
- (3) UGC.
- (4) UAA

Ans: (4)

[1995]

Q1957. Okazaki fragments are seen during

- (1) replication
- (2) transcription
- (3) transduction
- (4) translation

Ans: (1)

[1995]

Q1958. Anticodon is an unpaired triplet of bases in an exposed position of

- (1) tRNA
- (2) mRNA
- (3) sRNA
- (4) rRNA

Ans: (1)

[1995, 2000]

Q1959. The lac operon is an example of

- (1) repressible operon
- (2) arabinose operon
- (3) overlapping genes
- (4) inducible operon

Ans: (4)

[1996]

Q1960. An environmental agent, which triggers transcription from an operon, is a

- (1) depressor
- (2) regulator
- (3) controlling element
- (4) inducer

Ans: (4)

[1996]

Q1961. If a completely radioactive double stranded DNA molecule undergoes two rounds of replication in a non-radioactive medium, what will be the radioactive status of the four resulting molecules?

- (1) Three out of four contain radioactivity
- (2) Half the number contain no radioactivity
- (3) Radioactivity is lost from all four
- (4) All four still contain radioactivity

Ans: (2)

[1996]

Q1962. A mutation at one base of the first codon, of a gene, produces a non-functional protein. Such a mutation is called

- (1) frameshift mutation
- (2) nonsense mutation
- (3) reverse mutation
- (4) missense mutation

Ans: (4)

[1997]

Q1963. Three codons causing chain termination are

- (1) AGT, TAG, UGA
- (2) TAG, TAA, TGA
- (3) UAG, UGA, UAA
- (4) GAT, AAT, AGT

Ans: (3)

[1997]

Q1964. Which step of translation does not consume a high energy

phosphate bond?

- (1) Peptidyl-transferase reaction
- (2) Translocation
- (3) Aminoacyl tRNA binding to active ribosomal site
- (4) Amino acid activation

Ans: (3)

[1997]

Q1965. The basis for DNA fingerprinting is

- (1) availability of cloned DNA
- (2) occurrence of restriction fragment length polymorphism (RFLP)
- (3) knowledge of human karyotype
- (4) phenotypic differences between individuals

Ans: (2)

[1997]

Q1966. The eukaryotic genome differs from the prokaryotic genome because

- (1) repetitive sequences are present in eukaryotes
- (2) genes in the former case are organized into operons
- (3) the DNA is circular and single stranded in prokaryotes
- (4) the DNA is complexed with histones in prokaryotes

Ans: (1)

[1997]

Q1967. What base is responsible for hot spots for spontaneous point mutations?

- (1) 5-methylcytosine
- (2) Adenine
- (3) Guanine
- (4) 5-bromouracil

Ans: (1)

Q1968. In eukaryotes, after transcription of mRNA, some of its nucleotides are removed before it is translated into polypeptide. The nucleotides which are removed from mRNA are called

- (1) unusual bases
- (2) exons

- (3) introns
 - (4) upstream sequences
- Ans: (3)

Q1969. During development of an organism, the product of one gene is required to activate another gene. Such gene products are called

- (1) coenzymes
 - (2) transcription factors
 - (3) catalase
 - (4) episomes
- Ans: (2)

[1998]

Q1970. Different mutations referable to the same locus of a chromosome give rise to

- (1) polygenes
 - (2) multiple alleles
 - (3) oncogenes
 - (4) pseudoalleles
- Ans: (2)

[1998]

Q1971. In operon concept, regulator gene functions as

- (1) inhibitor
 - (2) repressor
 - (3) all of these
 - (4) regulator
- Ans: (2)

[1998]

Q1972. The Pneumococcus experiment proves that

- (1) Bacteria do not reproduce sexually
 - (2) DNA is the genetic material
 - (3) RNA sometime controls the production of DNA and proteins
 - (4) Bacteria undergo binary fission
- Ans: (2)

[1998]

Q1973. In DNA, when AGCT occurs, their association is as per which of the following pairs?

- (1) AT-GC
- (2) AG-CT
- (3) All of these
- (4) AC-GT

Ans: (1)

[1999]

Q1974. Genes that are involved in turning on or off the transcription of a set of structural genes are called

- (1) Regulator genes
- (2) Operator genes
- (3) Polymorphic genes
- (4) Redundant genes

Ans: (2)

Q1975. DNA elements which can switch their position are called

- (1) cistrons
- (2) exons
- (3) transposons
- (4) introns

Ans: (3)

[1999]

Q1976. In negative operon

- (1) co-repressor binds with inducer
- (2) co-repressor binds with repressor
- (3) CAMP have negative effect on lac operon
- (4) co-repressor does not bind with repressor

Ans: (2)

[1999]

Q1977. One function of the telomeres in a chromosome is to

- (1) "seal" the ends of chromosomes
- (2) identify the correct number of the homologous pair of chromosomes
- (3) start RNA synthesis
- (4) help two chromatids to move towards poles

Ans: (1)

[2000]

Q1978. Protein synthesis occurs

- (1) only on the ribosomes present in cytosol
- (2) on ribosomes present in cytosol as well as in mitochondria
- (3) on ribosomes present in the nucleolus as well as cytoplasm
- (4) only on ribosomes attached to the nuclear envelope and endoplasmic reticulum

Ans: (2)

[2000]

Q1979. Mutation generally produces

- (1) recessive genes
- (2) polygenes
- (3) lethal genes
- (4) dominant genes

Ans: (3)

[2000]

Q1980. How many base pairs (bp) are found in the haploid genome of humans?

- (1) 7×10^9
- (2) 2.9×10^9
- (3) 3×10^9
- (4) 4×10^8

Ans: (2)

[2001]

Q1981. In E.coli during lactose metabolism repressor binds to

- (1) structural gene
- (2) regulator gene
- (3) promoter gene
- (4) operator gene

Ans: (4)

[2001]

Q1982. Gene and cistron words are sometimes used synonymously because

- (1) one gene contains one cistron
- (2) one cistron contains many genes

- (3) one gene contains no cistron
- (4) one gene contains many cistrons

Ans: (1)

[2001]

Q1983. At time of organogenesis genes regulate the process at different levels and at different time due to

- (1) intron
- (2) promoter
- (3) exon
- (4) regulator

Ans: (4)

[2001]

Q1984. In which direction m-RNA is synthesised on DNA template?

- (1) Both
- (2)
- (1) and
- (4)

Ans: (2)

[2001]

Q1985. Frequency of an allele in a isolated population may change due to

- (1) mutation
- (2) genetic Drift
- (3) natural selection
- (4) gene flow

Ans: (2)

[2002]

Q1986. Exon part of m- RNAs have code for

- (1) carbohydrate
- (2) protein
- (3) phospholipid
- (4) lipid

Ans: (2)

[2002]

Q1987. In a DNA percentage of thymine is 20% then what will be the percentage of guanine?

- (1) 30%
- (2) 20%
- (3) 60%
- (4) 40%

Ans: (1)

[2002]

Q1988. Transformation experiment was first performed on which bacteria?

- (1) Salmonella
- (2) E.coli
- (3) Pasteurella pestis
- (4) Diplococcus pneumoniae

Ans: (4)

[2002]

Q1989. Jacob and Monod studied lactose metabolism in E.coli and proposed operon concept. Operon concept is applicable for

- (1) all prokaryotes and all eukaryotes
- (2) all prokaryotes
- (3) all prokaryotes and some protozoans
- (4) all prokaryotes and some eukaryotes

Ans: (4)

[2002]

Q1990. Out of 64 codons, 61 codons code for 20 types of amino acid. It is called

- (1) wobbling of codon
- (2) degeneracy of genetic code
- (3) universality of codons
- (4) overlapping of gene

Ans: (2)

[2002]

Q1991. Which one of the following triplet codes, is correctly matched with its specificity for an amino acid in protein synthesis

or as 'start' or 'stop' codon?

- (1) UUU – Stop
- (2) UAC – Tyrosine
- (3) UGU – Leucine
- (4) UCG – Start

Ans: (2)

[2003]

Q1992. During translation initiation in prokaryotes, a GTP molecule is needed in

- (1) binding of 30 S subunit of ribosome with mRNA
- (2) association of 50 S subunit of ribosome with initiation complex
- (3) association of 30 S-mRNA with formylmet-tRNA
- (4) formation of formyl-met-tRNA

Ans: (3)

[2003]

Q1993. During transcription, the DNA site at which RNA polymerase binds is called

- (1) regulator
- (2) enhancer
- (3) receptor
- (4) promoter

Ans: (4)

[2003]

Q1994. What does "lac" refer to in what we call the lac operon?

- (1) Lactase
- (2) The number 1,00,000
- (3) Lac insect
- (4) Lactose

Ans: (4)

[2003]

Q1995. When a cluster of genes show linkage behaviour they

- (1) show recombination during meiosis
- (2) induce cell division
- (3) do not show independent assortment
- (4) do not show a chromosome map

Ans: (3)

[2003]

Q1996. DNA fingerprinting refers to

- (1) techniques used for molecular analysis of different specimens of DNA
- (2) molecular analysis of profiles of DNA samples
- (3) techniques used for identification of fingerprints of individuals
- (4) analysis of DNA samples using imprinting devices

Ans: (2)

[2003]

Q1997. Genetic map is one that

- (1) establishes the various stages in gene evolution
- (2) shows the distribution of various species in a region
- (3) show the stages during the cell division
- (4) establishes sites of the genes on a chromosome

Ans: (4)

[2003]

Q1998. Degeneration of a genetic code is attributed to the

- (1) second member of a codon
- (2) third member of a codon
- (3) entire codon
- (4) first member of a codon

Ans: (2)

[2003]

Q1999. In the genetic code dictionary, how many codons are used to code for all the 20 essential amino acids?

- (1) 64
- (2) 60
- (3) 61
- (4) 20

Ans: (3)

[2003]

Q2000. What would happen if in a gene encoding a polypeptide of 50 amino acids, 25th codon (UAU) is mutated to UAA?

- (1) Two polypeptides of 24 and 25 amino acids will be formed
- (2) A polypeptide of 25 amino acids will be formed

(3) A polypeptide of 49 amino acids will be formed

(4) A polypeptide of 24 amino acids will be formed

Ans: (4)

[2004]

Q2001. During replication of a bacterial chromosome DNA synthesis starts from a replication origin site and

(1) moves in one direction of the site

(2) RNA primers are involved

(3) moves in bi-directional way

(4) is facilitated by telomerase

Ans: (3)

[2004]

Q2002. The telomeres of eukaryotic chromosomes consist of short sequences of

(1) adenine rich repeats

(2) thymine rich repeats

(3) guanine rich repeats

(4) cytosine rich repeats

Ans: (1)

[2004]

Q2003. The following ratio is generally constant for a given species:

(1) $(G+C)/(A+T)$

(2) $(A+G)/(C+T)$

(3) $(A+C)(T+G)$

(4) $(T+C)/(G+A)$

Ans: (1)

[2004]

Q2004. Crossing over that results in genetic recombination in higher organisms occurs between

(1) two daughter nuclei

(2) sister chromatids of a bivalent

(3) two different bivalents

(4) non-sister chromatids of a bivalent

Ans: (4)

[2004]

Q2005. In a mutational event, when adenine is replaced by guanine, it is a case of

- (1) transition
- (2) frame shift mutation
- (3) transversion
- (4) transcription

Ans: (1)

[2004]

Q2006. Telomerase is an enzyme which is a

- (1) ribonucleoprotein
- (2) simple protein
- (3) repetitive DNA
- (4) RNA

Ans: (1)

[2004]

Q2007. Which one of the following makes use of RNA as a template to synthesize DNA?

- (1) Reverse transcriptase
- (2) DNA polymerase
- (3) DNA dependant RNA polymerase
- (4) RNA polymerase

Ans: (1)

[2005]

Q2008. During transcription holoenzyme RNA polymerase binds to a DNA sequence and the DNA assumes a saddle like structure at that point. What is that sequence called?

- (1) GGTT box
- (2) AAAT box
- (3) CAAT box
- (4) TATA box

Ans: (4)

[2005]

Q2009. E.coli cells with a mutated z gene of the lac operon cannot

grow in medium containing only lactose as the source of energy because:

- (1) in the presence of glucose, E.coli cells do not utilize lactose
- (2) the lac operon is constitutively active in these cells
- (3) they cannot transport lactose from the medium into the cell
- (4) they cannot synthesize functional β -galactosidase

Ans: (4)

Q2010. In transgenics, expression of transgene in target tissue is determined by

- (1) promoter
- (2) enhancer
- (3) reporter
- (4) transgene

Ans: (4)

Q2011. A sequential expression of a set of human genes

- (1) ribosome
- (2) messenger RNA
- (3) transfer RNA.
- (4) DNA sequence

Ans: (4)

[2006]

Q2012. The length of DNA molecule greatly exceeds the dimensions of the nucleus in eukaryotic cells. How is this DNA accommodated?

- (1) through elimination of repetitive DNA
- (2) super-coiling in nucleosomes
- (3) deletion of non-essential genes.
- (4) DNase digestion

Ans: (2)

[2006]

Q2013. The okazaki fragments in DNA chain growth

- (1) polymerize in the 5' - to - 3' direction and explain 3' - to - 5' DNA replication
- (2) polymerize in the 3' - to - 5' direction and forms replication fork

- (3) result in transcription.
- (4) prove semi-conservative nature of DNA replication

Ans: (1)

[2007]

Q2014. In which mode of inheritance do you expect more maternal influence among the offspring?

- (1) X-linked
- (2) Cytoplasmic
- (3) Autosomal
- (4) Y-linked

Ans: (2)

[2007]

Q2015. One gene -one enzyme hypothesis was postulated by

- (1) Beadle and Tatum
- (2) Hershey and Chase
- (3) R. Franklin
- (4) A. Garrod

Ans: (1)

[2007]

Q2016. Which one of the following pairs of codons is correctly matched with their function or the signal for the particular amino acid?

- (1) AUG, ACG-Start/Methionine
- (2) GUU, GCU-Alanine
- (3) UUA, UCA-Leucine
- (4) UAG, UGA-Stop

Ans: (4)

[2007]

Q2017. In the DNA molecule

- (1) the proportion of Adenine in relation to thymine varies with the organism
- (2) the total amount of purine nucleotides and pyrimidine nucleotides is not always equal
- (3) there are two strands which run anti parallel one in 5' → 3' direction and other in 3' → 5'
- (4) there are two strands which run parallel in the 5' → 3' direction

Ans: (3)

[2007]

Q2018. Molecular basis of organ differentiation depends on the modulation in transcription by

- (1) anticodon
- (2) ribosome
- (3) RNA polymerase.
- (4) transcription factor

Ans: (3)

[2007]

Q2019. One gene-one enzyme relationship was established for the first time in

- (1) Diplococcus pneumoniae
- (2) Salmonella typhimurium
- (3) Neurospora crassa.
- (4) Escherichia coli

Ans: (3)

[2008]

Q2020. During transcription, RNA polymerase holoenzyme binds to a gene promoter and assumes a saddle-like structure, what is its DNA-binding sequence?

- (1) TATA
- (2) AATT
- (3) TTAA
- (4) CACC

Ans: (1)

[2008]

Q2021. Removal of introns and joining the exons in a defined order in a transcription unit is called:

- (1) capping
- (2) tailing
- (3) splicing
- (4) transformation

Ans: (3)

[2008]

Q2022. What is not true for genetic code?

- (1) It is unambiguous
- (2) It is nearly universal
- (3) A codon in mRNA is read in a non contiguous fashion
- (4) It is degenerate

Ans: (3)

[2008]

Q2023. T.O. Diener discovered a:

- (1) bacteriophage
- (2) free infectious DNA
- (3) free infectious RNA
- (4) infectious protein

Ans: (3)

[2009]

Q2024. Haploids are more suitable for mutation studies than the diploids. This is because

- (1) haploids are more abundant in nature than diploids
- (2) haploids are reproductively more stable than diploids
- (3) all mutations, whether dominant or recessive are expressed in haploids
- (4) mutagens penetrate in haploids more effectively than diploids

Ans: (3)

[2009]

Q2025. Which one of the following pairs of nitrogenous bases of nucleic acids, is wrongly matched with the category mentioned against it?

- (1) Guanine, Adenine - Purines
- (2) Thymine, Uracil - Pyrimidines
- (3) Adenine, Thymine - Purines
- (4) Uracil, Cytosine - Pyrimidines

Ans: (3)

[2009]

Q2026. Satellite DNA is useful tool in:

- (1) forensic science
- (2) organ transplantation
- (3) genetic engineering

(4) sex determination

Ans: (1)

[2009]

Q2027. The one aspect which is not a salient feature of genetic code, is its being:

- (1) universal
- (2) degenerate
- (3) specific
- (4) ambiguous

Ans: (4)

[2009]

Q2028. Select the two correct statements out of the four (a–d) given below about lac operon. (i) Glucose or galactose may bind with the repressor and inactivate it (ii) In the absence of lactose the repressor binds with the operator region (iii) The z-gene codes for permease (iv) This was elucidated by Francois Jacob and Jacque Monod The correct statements are:

- (1) (ii) and (iv)
- (2) (ii) and (iii)
- (3) (i) and (ii)
- (4) (i) and (iii)

Ans: (1)

[2010]

Q2029. Whose experiments cracked the DNA and discovered unequivocally that a genetic code is a 'triplet' .

- (1) Beadle and Tatum
- (2) Hershey and Chase
- (3) Nirenberg and Mathaei
- (4) Morgan and Sturtevant

Ans: (3)

[2010]

Q2030. Semi-conservative replication of DNA was first demonstrated in:

- (1) Salmonella typhimurium

- (2) Escherichia coli
- (3) Drosophila melanogaster
- (4) Streptococcus pneumoniae

Ans: (2)

[2010]

Q2031. If one strand of DNA has the nitrogenous base sequence at ATCTG, what would be the complementary RNA strand sequence

- (1) AACTG
- (2) TTAGU
- (3) ATCGU
- (4) UAGAC

Ans: (4)

[2010]

Q2032. Which one of the following is not a part of a transcription unit in DNA?

- (1) A promoter
- (2) The inducer
- (3) The structural gene
- (4) A terminator

Ans: (2)

[2011]

Q2033. Removal of RNA polymerase III from nucleoplasm will affect the synthesis of:

- (1) m RNA
- (2) t RNA
- (3) r RNA
- (4) hn RNA

Ans: (2)

[2012]

Q2034. Which one of the following also acts as a catalyst in a bacterial cell?

- (1) hn RNA
- (2) 5 sr RNA
- (3) 23 sr RNA

(4) sn RNA

Ans: (3)

[2012]

Q2035. Which one of the following does not follow the central dogma of molecular biology?

(1) Chlamydomonas

(2) Pea

(3) HIV

(4) Mucor

Ans: (3)

[2012]

Q2036. Which enzymes will be produced in a cell in which there is a nonsense mutation in the lac Y gene?

(1) Lactose permease and transcetylase

(2) Lactose permease

(3) β -galactosidase

(4) Transacetylase

Ans: (3)

[2012]

Q2037.

Ans: (4)

[2012M]

Q2038. Which of the following forms the basis of DNA Finger printing?

(1) The relative difference in the DNA occurrence in blood, skin and saliva.

(2) The relative proportions of purines and pyrimidines in DNA.

(3) The relative amount of DNA in the ridges and grooves of the fingerprints.

(4) Satellite DNA occurring as highly repeated short DNA segments.

Ans: (4)

[2012M]

Q2039. Read the following four statements (A-D). (A) In transcription, adenosine pairs with uracil. (B) Regulation of lac operon by repressor is referred to as positive regulation. (C) The

human genome has approximately 50,000 genes. (D) Haemophilia is a sex-linked recessive disease. How many of the above statements are correct?

- (1) Four
- (2) Two
- (3) One
- (4) Three

Ans: (2)

Q2040. Removal of introns and joining of exons in a defined order during transcription is called:

- (1) Slicing
- (2) Looping
- (3) Splicing
- (4) Inducing

Ans: (3)

[NEET 2013]

Q2041. In an inducible operon, the genes are

- (1) Usually expressed unless a signal turns them “off ”
- (2) Always expressed
- (3) Never expressed
- (4) Usually not expressed unless a signal turns them “on”

Ans: (4)

[NEET Kar. 2013]

Q2042.

Ans: (2)

[NEET Kar. 2013]

Q2043. One of the most frequently used techniques in DNA fingerprinting is

- (1) SSCP
- (2) AFLP
- (3) SCAR
- (4) VNTR

Ans: (4)

[NEET Kar. 2013]

Q2044. Which of the following is not a property of the genetic code?

- (1) Ambiguous d) Degeneracy
- (2) Universal (4) Non-overlapping

Ans: (1)

Q2045. Uridine, present only in RNA is a

- (1) Nucleotide
- (2) Pyrimidine
- (3) Purine
- (4) Nucleoside

Ans: (4)

[NEET Kar. 2013]

Q2046. Theory of inheritance of acquired characters was given by

- (1) Darwin
- (2) Wallace
- (3) De Vries
- (4) Lamarck

Ans: (4)

[1988]

Q2047. “Continuity of germplasm” theory was given by

- (1) Darwin
- (2) de Vries
- (3) Lamarck
- (4) Weismann

Ans: (4)

[1988]

Q2048. Evolution is

- (1) history of a race
- (2) progressive development of a race
- (3) development of a race
- (4) history and development of a race alongwith variations

Ans: (4)

[1989]

Q2049. Phenomenon of organisms resembling others for escaping from enemies is

- (1) Homology
- (2) Adaptation
- (3) Analogy
- (4) Mimicry

Ans: (4)

[1989]

Q2050. Humming bird and Hawk illustrate

- (1) Adaptive radiation
- (2) Convergent evolution
- (3) Parallel evolution
- (4) Homology

Ans: (1)

[1989]

Q2051. Correct order is

- (1) Palaeozoic → Mesozoic → Coenozoic
- (2) Palaeozoic → Archaeozoic → Coenozoic
- (3) Mesozoic → Archaeozoic → Proterozoic
- (4) Archaeozoic → Palaeozoic → Proterozoic

Ans: (1)

[1989]

Q2052. Which was absent in the atmosphere at the time of origin of life?

- (1) O_2
- (2) NH_3
- (3) CH_4
- (4) H_2

Ans: (1)

[1990]

Q2053. Basic principles of embryonic development were pronounced by

- (1) Haeckel
- (2) Van Baer

- (3) Morgan
 - (4) Weismann
- Ans: (2)

[1990]

Q2054. Parallelism is

- (1) adaptive convergence of widely different species
- (2) adaptive divergence
- (3) adaptive convergence of closely related groups
- (4) adaptive divergence of widely separated species

Ans: (3)

[1991]

Q2055. 'Origin' of species' was written by

- (1) Lamarck
- (2) Oparin
- (3) Darwin
- (4) Weismann

Ans: (3)

[1991]

Q2056. Genetic drift is change of

- (1) gene frequency from one generation to next
- (2) gene frequency in same generation
- (3) none of the above
- (4) appearance of recessive genes

Ans: (1)

[1992]

Q2057. Theory of Natural selection dwells on 1993]

- (1) changes in gene complex resulting in heritable variations
- (2) role of environment in evolution
- (3) none of these
- (4) natural selection acting on favourable variations

Ans: (1)

Q2058. Weismann cut off tails of mice generation after generation but tails neither disappeared nor shortened showing that

- (1) Mutation theory is wrong
- (2) Darwin was correct

- (3) Lamarckism was wrong in inheritance of acquired characters.
- (4) Tail is an essential organ

Ans: (3)

[1993]

Q2059. Evolutionary convergence is development of

- (1) common set of characters in closely related groups
- (2) common set of characters in group of different ancestry
- (3) random mating.
- (4) dissimilar characters in closely related groups

Ans: (2)

Q2060. The first organisms were

- (1) Autotrophs
- (2) Chemoautotrophs
- (3) Eucaryotes
- (4) Chemoheterotrophs

Ans: (4)

[1993]

Q2061. Homologous organs are

- (1) Pectoral fins of Fish and fore limbs of Horse
- (2) Wings of insects and Bat
- (3) Wings of Grasshopper and Crow
- (4) Gills of Fish and lungs of Rabbit

Ans: (1)

[1994]

Q2062. 'Golden Age of Dinosaurs' / Age of reptiles was

- (1) Palaeozoic
- (2) Mesozoic
- (3) Psychozoic
- (4) Coenozoic

Ans: (2)

[1994]

Q2063. Which one is irrelevant to evolution of man?

- (1) Increased ability to communicate or develop community behaviour
- (2) Perfection of hand for tool making
- (3) Loss of tail

(4) Change of diet from hard nuts/roots to soft food

Ans: (3)

[1994]

Q2064. Which one does not favour Lamarckian concept of inheritance of acquired characters?

- (1) Presence of webbed toes in aquatic birds
- (2) Lack of pigment in cave dwellers
- (3) Melanisation of Peppered Moth in industrial areas.
- (4) Absence of limbs in snakes

Ans: (3)

[1994]

Q2065. Frequency of a character increases when it is

- (1) inheritable
- (2) recessive
- (3) adaptable
- (4) dominant

Ans: (3)

[1994, 99]

Q2066. The closely related morphologically similar sympatric populations, but reproductively isolated, are designated as

- (1) clones
- (2) clines
- (3) sibling species
- (4) demes

Ans: (3)

[1994]

Q2067. The homologous organs are those that show similarity in

- (1) function
- (2) size
- (3) appearance
- (4) origin

Ans: (4)

[1994]

Q2068. The presence of gill slits, in the embryos of all vertebrates, supports the theory of

- (1) metamorphosis
- (2) biogenesis
- (3) organic evolution
- (4) recapitulation

Ans: (4)

[1995]

Q2069. Two geographical regions separated by high mountains are

- (1) Nearctic and Palaeartic
- (2) Oriental and Australian
- (3) Neotropical and Ethiopian
- (4) Palaeartic and Oriental

Ans: (4)

[1995]

Q2070. The earliest fossil form in the phylogeny of Horse is

- (1) Eohippus
- (2) Merychippus
- (3) Equus.
- (4) Mesohippus

Ans: (1)

[1995]

Q2071. In the evolution of man, several changes occurred in the ancestral characters. Which one of the following changes is irrelevant in this context?

- (1) Change of diet from fruits, hard nuts and roots to softer food
- (2) Loss of tail from body
- (3) Perfection in the structure and working of hand for tool-making
- (4) Increase in the ability to communicate with others and develop community behaviour

Ans: (2)

[1996]

Q2072. Extremities, tail and ear are relatively shorter in animals living in cooler regions as compared to those inhabiting warmer zones. This is

- (1) Gloger's Rule

- (2) Bergman's Rule
- (3) Allen's Rule
- (4) Jordan's Rule

Ans: (3)

[1996]

Q2073. Which one of the following sets includes only the vestigial structures in man?

- (1) Coccyx, nictitating membrane, vermiform appendix, ear muscles
- (2) Body hair, olecranon process, coccyx, patella
- (3) Coccyx, body hair, ear ossicles, vermiform appendix
- (4) Wisdom teeth, mammary glands, coccyx, patella

Ans: (1)

[1996]

Q2074. Identify the correct sequence in which the following substances have appeared during the course of evolution of life on earth

- (1) Water, amino acids, nucleic acids, enzymes
- (2) Glucose, amino acids, nucleic acids, proteins
- (3) Amino acids, ammonia, phosphates, nucleic acids
- (4) Ammonia, amino acids, proteins, nucleic acids

Ans: (4)

[1996]

Q2075. The kind of evolution in which two species of different genealogy come to resemble one another closely, is termed as

- (1) parallel evolution
- (2) progressive evolution
- (3) retrogressive evolution
- (4) convergent evolution

Ans: (4)

[1996]

Q2076. In general, in the developmental history of a mammalian heart, it is observed that it passes through a two-chambered fish-like heart, three-chambered frog-like heart and finally to four-chambered stage. To which hypothesis can this above cited

statement be approximated?

- (1) Biogenetic Law
- (2) Hardy-Weinberg Law
- (3) Mendelian Principles
- (4) Lamarck's Principle

Ans: (1)

[1996]

Q2077. Which one of the following includes all homologous organs?

- (1) The thoracic leg of cockroach, the hind leg of frog and fore leg of rabbit
- (2) The wing of butterfly, wing of bird, wing (patagia) of bat
- (3) The wing of bird, wing of bat and wing of "flying" lizard
- (4) The fore limb of frog, wing of bird and fore limb of rabbit

Ans: (4)

[1997]

Q2078. Which one of the following statements about fossil human species is correct?

- (1) Australopithecus fossils have been found in Australia
- (2) Fossils of Homo neanderthalensis have been found recently in South America
- (3) Homo erectus was preceded by Homo habilis
- (4) Neanderthal man and Cro-Magnon man did exist for sometime together

Ans: (1)

[1997]

Q2079. Common origin of man and chimpanzee is best shown by

- (1) Binocular vision
- (2) Banding pattern in chromosomes number 3 and 6
- (3) Dental formula
- (4) Cranial capacity

Ans: (2)

[1997]

Q2080. Which one of the following is regarded as the direct ancestor of modern man?

- (1) Homo habilis
- (2) Homo erectus

- (3) Australopithecus
- (4) Ramapithecus

Ans: (2)

[1998]

Q2081. Which one of the following statements is correct?

- (1) Neanderthal man is the direct ancestor of Homo sapiens
- (2) Cro-Magnon man's fossil has been found in Ethiopia
- (3) Australopithecus is the real ancestor of modern man
- (4) Homo erectus is the ancestor of man

Ans: (4)

[1998, 02]

Q2082. Diversity in the type of beaks of finches adapted to different feeding habits on the Galapagos Islands, as observed by Darwin, provides evidence for

- (1) Interspecific competition
- (2) Intraspecific variations
- (3) Origin of Species by natural selection
- (4) Intraspecific competition

Ans: (3)

[1998]

Q2083. Life cannot originate from inorganic materials at present because of

- (1) absence of raw materials
- (2) a very high amount of oxygen in the atmosphere
- (3) high degree of environmental pollution
- (4) very low atmospheric temperature

Ans: (2)

[1998]

Q2084. The age of the fossil of Dryopithecus on the geological time scale is

- (1) 50×10^6 years back
- (2) 5×10^6 years back
- (3) 75×10^6 years back
- (4) 25×10^6 years back

Ans: (4)

[1998]

Q2085. Genetic drift operates only in

- (1) mendelian Populations
- (2) smaller Populations
- (3) island Populations
- (4) larger Populations

Ans: (2)

[1998]

Q2086. Which one of the following features is closely related with the evolution of humans?

- (1) Binocular vision
- (2) Loss of tail
- (3) Flat nails
- (4) Shortening of jaws

Ans: (2)

[2000]

Q2087. Which of the following primate is the closest relative of humans?

- (1) Gorilla
- (2) Rhesus monkey
- (3) Gibbon
- (4) Orangutan

Ans: (1)

[2000]

Q2088. Homo sapiens evolved during

- (1) Pliocene
- (2) Pleistocene
- (3) Miocene
- (4) Oligocene

Ans: (1)

[2000]

Q2089. During organ differentiation in Drosophila an organ is often modified to another organ such as wings could be replaced by legs. Genes responsible for such metamorphosis are called

- (1) Double dominant genes

- (2) Homeotic genes
- (3) Complimentary genes
- (4) Plastid genes

Ans: (2)

[2000]

Q2090. Which is not a vestigial part in humans?

- (1) Third molar
- (2) Segmental muscles of abdomen
- (3) Coccyx
- (4) Finger nails

Ans: (4)

[2000]

Q2091. Darwin's theory of pangenesis shows similarity with theory of inheritance of acquired characters then what shall be correct according to it?

- (1) Development of organs is due to will power
- (2) Useful organs become strong and developed while useless organs become extinct. These organs help in struggle for survival
- (3) There should be come physical basis of inheritance
- (4) Size of organs increase with ageing

Ans: (3)

[2000]

Q2092. Which of the following is correct order of evolutionary history of man?

- (1) Peking man, Heidelberg man, Neanderthal, Cro-magnon
- (2) Peking man, Homo sapiens, Neanderthal, Cro-magnon
- (3) Peking man, Neanderthal, Homo sapiens, Heidelberg man
- (4) Peking, Neanderthal, Homo sapiens, Cromagnon

Ans: (1)

[2001]

Q2093. Which of following is closest relative of man?

- (1) Orangutan
- (2) Chimpanzee
- (3) Gibbon
- (4) Gorilla

Ans: (2)

[2001]

Q2094. Similarities in organism with different genotype indicates

- (1) Convergent evolution
- (2) Microevolution
- (3) Divergent evolution
- (4) Macroevolution

Ans: (1)

[2001]

Q2095. Darwin's finches provide an excellent evidence in favour of evolution. This evidence comes from the field of

- (1) Embryology
- (2) Biogeography
- (3) Palaeontology
- (4) Anatomy

Ans: (2)

[2001]

Q2096. Sequence of which of the followings is used to know the phylogeny?

- (1) tRNA
- (2) mRNA
- (3) DNA
- (4) rRNA

Ans: (4)

[2001]

Q2097. There is no life on moon due to the absence of

- (1) light
- (2) O_2
- (3) temperature
- (4) water

Ans: (4)

[2001]

Q2098. Which of the following are homologous organs?

- (1) Wings of bat and butterfly
- (2) Wings of birds and locust

- (3) Legs of frog and cockroach
 - (4) Wings of birds (sparrow) and pectoral fins of fish
- Ans: (4)

[2002]

Q2099. Half life period of C is about

- (1) 50 years
- (2) 500 years
- (3) 5×10^4 years
- (4) 5000 years

Ans: (4)

[2002]

Q2100. Occurrence of endemic species in South America and Australia is due to

- (1) There is no terrestrial route to these places
- (2) These species have been extinct from other regions
- (3) Retrogressive evolution
- (4) Continental separation

Ans: (4)

[2002]

Q2101. In which condition the gene ratio remains constant for any species?

- (1) Mutation
- (2) Sexual selection
- (3) Gene flow
- (4) Random mating

Ans: (4)

[2002]

Q2102. According to fossils discovered up to present time origin and evolution of man was started from

- (1) Africa
- (2) France
- (3) China
- (4) Java

Ans: (1)

[2002]

Q2103. Which of the following is most important for speciation?

- (1) Behavioural isolation
- (2) Seasonal isolation
- (3) Tropical isolation
- (4) Reproductive isolation

Ans: (2)

[2002]

Q2104. Two different species can not live for long duration in the same niche or habitat. This law is

- (1) Dollo's rule
- (2) Allen's law
- (3) Weisman's theory
- (4) Gause's hypothesis

Ans: (4)

Q2105. In which era reptiles were dominant?

- (1) Palaeozoic era
- (2) Coenozoic era
- (3) Archaeozoic era
- (4) Mesozoic era

Ans: (4)

[2002]

Q2106. Convergent evolution is illustrated by

- (1) bacterium and protozoan
- (2) dogfish and whale
- (3) starfish and cuttle fish
- (4) rat and dog

Ans: (2)

[2003]

Q2107. In a random mating population in equilibrium, which of the following brings about a change in gene frequency in a non-directional manner?

- (1) Random drift
- (2) Migration
- (3) Selection
- (4) Mutations

Ans: (1)

[2003]

Q2108. Industrial melanism is an example of

- (1) darkening of skin due to smoke from industries
- (2) defensive adaptation of skin against ultraviolet radiations
- (3) protective resemblance with the surroundings
- (4) drug resistance

Ans: (3)

[2003]

Q2109. Which one of the following sequences was proposed by Darwin and Wallace for organic evolution?

- (1) Variations, constancy of population size, overproduction, natural selection
- (2) Variations, natural selection, overproduction, constancy of population size
- (3) Overproduction, constancy of population size, variations, natural selection
- (4) Overproduction, variations, constancy of population size, natural selection

Ans: (4)

[2003]

Q2110. In recent years, DNA sequences (nucleotide sequence) of mt-DNA and Y chromosomes were considered for the study of human evolution, because

- (1) they are uniparental in origin and do not take part in recombination
- (2) they can be studied from the samples of fossil remains
- (3) their structure is known in greater detail
- (4) they are small, and therefore, easy to study

Ans: (1)

[2003]

Q2111. What kind of evidence suggested that man is more closely related with chimpanzee than with other hominoid apes?

- (1) Evidence from fossil remains, and the fossil mitochondrial DNA alone
- (2) Evidence from DNA from sex chromosomes only
- (3) Evidence from DNA extracted from sex chromosomes, autosomes and mitochondria
- (4) Comparison of chromosome morphology only

Ans: (3)

[2003]

Q2112. Presence of gills in the tadpole of frog indicates that

- (1) frogs will have gills in future
- (2) fishes were amphibious in the past
- (3) frogs evolved from gilled ancestors
- (4) fishes evolved from frog-like ancestors

Ans: (3)

[2003]

Q2113. Random genetic drift in a population probably results from

- (1) interbreeding within this population
- (2) small population size
- (3) constant low mutation rate
- (4) highly genetically variable individuals

Ans: (2)

[2003]

Q2114. Darwin in his 'Natural Selection Theory' did not believe in any role of which one of the following in organic evolution?

- (1) Survival of the fittest
- (2) Discontinuous variations
- (3) Struggle for existence
- (4) Parasites and predators as natural enemies

Ans: (2)

[2004]

Q2115. Which one of the following describes correctly the homologous structures?

- (1) Organs with anatomical dissimilarities, but performing same function
- (2) Organs appearing only in embryonic stage and disappearing later in the adult
- (3) Organs that have no function now, but had an important function in ancestors
- (4) Organs with anatomical similarities, but performing different functions

Ans: (4)

[2004]

Q2116. There are two opposing views about origin of modern man. According to one view Homo erectus in Asia were the ancestors of

modern man. A study of variation of DNA however suggested African origin of modern man. What kind of observation on DNA, variation could suggest this?

- (1) Similar variation in Africa and Asia
- (2) Greater variation in Asia than in Africa
- (3) Variation only in Asia and no variation in Africa
- (4) Greater variation in Africa than in Asia

Ans: (2)

[2004]

Q2117. Animals have the innate ability to escape from predation. Examples for the same are given below. Select the incorrect example.

- (1) Poison fangs in snakes
- (2) Colour change in Chameleon
- (3) Melanism in moths
- (4) Enlargement of body size by swallowing air in puffer fish

Ans: (1)

[2004]

Q2118. Which of the following is the relatively most accurate method for dating of fossils?

- (1) Electron-spin resonance method
- (2) Radio-carbon method
- (3) Uranium-lead method
- (4) Potassium-argon method

Ans: (2)

[2005]

Q2119. According to Oparin, which one of the following was not present in the primitive atmosphere of the earth

- (1) Hydrogen
- (2) Methane
- (3) Water vapour
- (4) Oxygen

Ans: (4)

[2005]

Q2120. Age of fossils in the past was generally determined by radio-carbon method and other methods involving radioactive elements found in the rocks. More precise methods, which were used recently and led to the revision of the evolutionary periods for different groups of organisms, includes

- (1) electron spin resonance (ESR) and fossil DNA
- (2) study of carbohydrates/proteins in fossils
- (3) study of carbohydrates/proteins in rocks
- (4) study of the conditions of fossilization

Ans: (1)

Q2121. Which one of the following amino-acid was not found to be synthesized in Miller's experiment?

- (1) Alanine
- (2) Aspartic acid
- (3) Glycine
- (4) Glutamic acid

Ans: (4)

[2005]

Q2122. de Vries gave his mutation theory on organic evolution while working on:

- (1) *Oenothera lamarckiana*
- (2) *Pisum sativum*
- (3) *Althea rosea*
- (4) *Drosophila melanogaster*

Ans: (1)

[2005]

Q2123. Using imprints from a plate with complete medium and carrying bacterial colonies, you can select streptomycin resistant mutants and prove that such mutations do not originate as adaptation. These imprints need to be used

- (1) only on plates with streptomycin
- (2) on plates with and without streptomycin
- (3) only on plates without streptomycin

[2005]

(4) on plates with minimal medium

Ans: (1)

[2005]

Q2124. Which one of the following phenomena supports Darwin's concept of natural selection in organic evolution?

- (1) Prevalence of pesticide resistant insects
- (2) Development of transgenic animals
- (3) Development of organs from 'stem cells' for organ transplantation
- (4) Production of 'Dolly', the sheep by cloning

Ans: (1)

[2005]

Q2125. Which one of the following experiments suggests that simplest living organisms could not have originated spontaneously from nonliving matter?

- (1) Microbes appeared from unsterilized organic matter
- (2) Larvae could appear in decaying organic matter.
- (3) Meat was not spoiled, when heated and kept sealed in a vessel.
- (4) Microbes did not appear in stored meat

Ans: (3)

[2006]

Q2126. When two species of different genealogy come to resemble each other as a result of adaptation, the phenomenon is termed

- (1) convergent evolution
- (2) microevolution
- (3) divergent evolution
- (4) co-evolution

Ans: (1)

[2006]

Q2127. Which one of the following is not a living fossil?

- (1) Peripatus
- (2) Sphenodon
- (3) King crab
- (4) Archaeopteryx

Ans: (4)

[2006]

Q2128. An important evidence in favour of organic evolution is the occurrence of

- (1) Homologous and analogous organs
- (2) Analogous and vestigial organs
- (3) Homologous and vestigial organs
- (4) Homologous organs only

Ans: (3)

[2006]

Q2129. Evolutionary history of an organism is known as

- (1) Ontogeny
- (2) Ancestry
- (3) Phylogeny
- (4) Paleontology

Ans: (3)

[2006]

Q2130. Jurassic period of the mesozoic era was characterised by

- (1) Flowering plants and first dinosaurs appeared
- (2) Radiation of reptiles and origin of mammal-like reptiles
- (3) Gymnosperms were dominant plants and first birds appeared
- (4) Dinosaurs become extinct and angiosperms appeared

Ans: (3)

Q2131. What is common between parrot, platypus and kangaroo?

- (1) Ovoparity
- (2) Toothless jaws
- (3) Homeothermy
- (4) Functional post-end tail

Ans: (3)

[2007]

Q2132. The finches of Galapagos islands provide an evidence in favour of

- (1) biogeographical evolution
- (2) evolution due to mutation
- (3) special creation.
- (4) retrogressive evolution

Ans: (1)

[2007]

Q2133. The concept of chemical evolution is based on

- (1) possible origin of life by combination of chemicals under suitable environmental conditions
- (2) interaction of water, air and clay under intense heat
- (3) crystallization of chemicals.
- (4) effect of solar radiation on chemicals

Ans: (1)

[2007]

Q2134. Which one of the following statement is correct?

- (1) Ontogeny repeats phylogeny
- (2) There is no evidence of the existence of gills during embryogenesis of mammals
- (3) Stem cells are specialize cells.
- (4) All plant and animal cells are totipotent

Ans: (1)

[2007]

Q2135. Among the human ancestors the brain size was more than 1000 cc in

- (1) Homo habilis
- (2) Homo erectus
- (3) Homo neanderthalensis
- (4) Ramapithecus

Ans: (3)

[2007]

Q2136. One of the important consequences of geographical isolation is

- (1) random creation of new species
- (2) preventing speciation
- (3) no change in the isolated fauna.
- (4) speciation through reproductive isolation

Ans: (4)

[2007]

Q2137. Adaptive radiation refers to

- (1) power of adaptation in an individual to a variety of environments

- (2) evolution of different species from a common ancestor
- (3) adaptations due to geographical isolation.
- (4) migration of members of a species to different geographical areas

Ans: (2)

[2007]

Q2138. Industrial melanism as observed in peppered moth proves that

- (1) melanism is a pollution-generated feature
- (2) the melanic form of the moth has no selective advantage over lighter form in industrial area
- (3) the true black melanic forms arise by a recurring random mutation
- (4) the lighter-form moth has no selective advantage either in polluted industrial area or non-polluted area

Ans: (3)

[2007]

Q2139. What is common to whale, seal and shark?

- (1) Homoiothermy
- (2) Thick subcutaneous fat
- (3) Seasonal migration.
- (4) Convergent evolution

Ans: (4)

[2007]

Q2140. Which one of the following is a matching pair of a body feature and the animal possessing it?

- (1) Ventral heart - Scorpion
- (2) Ventral central - Leech nervous system
- (3) Post-end tail - Octopus.
- (4) Pharyngeal gill slits - Chameleon absent in embryo

Ans: (2)

[2007]

Q2141. Which one of the following pairs of items correctly belongs to the category of organs mentioned against it?

- (1) Nephridia of earthworm and malpighian tubules of Cockroach - Excretory organs
- (2) Thorn of Bougainvillea and tendril of Cucurbita - Analogous organs

- (3) Wings of honey bee and wings of crow - Homologous organs
- (4) Nictitating membrane and blind spot in human eye - Vestigial organs

Ans: (1)

[2008]

Q2142. Thorn of Bougainvillea and tendril of cucurbita are example of

- (1) vestigial organs
- (2) analogous organs
- (3) retrogressive evolution
- (4) homologous organs

Ans: (4)

[2008]

Q2143. Darwinism finches are an excellent example of

- (1) brood parasitism
- (2) adaptive radiation
- (3) connecting links
- (4) seasonal migration

Ans: (2)

[2008]

Q2144. Which one of the following scientists name is correctly matched with the theory put forth by him?

- (1) De Vries - Natural selection
- (2) Weismann - Theory of continuity of Germplasm
- (3) Mendel - Theory of Pangenesis
- (4) Pasteur - Inheritance of acquired characters

Ans: (2)

[2008]

Q2145. Which one of the following in birds, indicates their reptilian ancestry?

- (1) Two special chambers crop and gizzard in their digestive tract
- (2) Scales on their hind limbs
- (3) Eggs with a calcareous shell
- (4) Four-chambered heart

Ans: (2)

[2008]

Q2146. Evolution of different species in a given area starting from a point and spreading to other geographical areas is known as:

- (1) Migration
- (2) Adaptive radiation
- (3) Divergent evolution
- (4) Natural selection

Ans: (2)

[2008]

Q2147. What was the most significant trend in evolution of modern man (*Homo sapiens*) from his ancestors?

- (1) Binocular vision
- (2) Upright posture
- (3) Increasing brain capacity
- (4) Shortening of jaws

Ans: (3)

[2009]

Q2148. Darwin's finches are a good example of:

- (1) Adaptive radiation
- (2) Industrial melanism
- (3) Convergent evolution
- (4) Connecting link

Ans: (1)

[2010]

Q2149. *Peripatus* is a connecting link between:

- (1) Coelenterata and Porifera
- (2) Mollusca and Echinodermata
- (3) Ctenophora and Platyhelminthes
- (4) Annelida and Arthropoda

Ans: (4)

[2011]

Q2150. Which one of the following is incorrect about the characteristics of protobionts (coacervates and microspheres) as envisaged in the biogenic origin of life?

- (1) They were partially isolated from the surroundings
- (2) They were able to reproduce

- (3) They could maintain an internal environment
 - (4) They could separate combinations of molecules from the surroundings
- Ans: (4)

[2012]

Q2151. The eye of octopus and eye of cat show different patterns of structure, yet they perform similar function. This is an example of:

- (1) Analogous organs that have evolved due to divergent evolution.
- (2) Homologous organs that have evolved due to divergent evolution.
- (3) Homologous organs that have evolved due to convergent evolution.
- (4) Analogous organs that have evolved due to convergent evolution.

Ans: (4)

[2012]

Q2152. The idea of mutations was brought forth by

- (1) Hardy Weinberg, who worked on allele frequencies in a population.
- (2) Gregor Mendel, who worked on *Pisum sativum*.
- (3) Charles Darwin, who observed a wide variety of organisms during sea voyage.
- (4) Hugo de Vries, who worked on evening primrose.

Ans: (4)

[2012]

Q2153. The extinct human who lived 1,00,000 to 40,000 years ago, in Europe, Asia and parts of Africa, With short stature, heavy eyebrows, retreating fore heads, large jaws with heavy teeth, stocky bodies, a lumbering gait and stooped posture was

- (1) Cro-magnan humans
- (2) *Homo habilis*
- (3) *Ramapithecus*
- (4) Neanderthal human

Ans: (4)

[2012]

Q2154. What was the most significant trend in the evolution of modern man (*Homo sapiens*) from his ancestors?

- (1) Increasing cranial capacity
- (2) Shortening of jaws

- (3) Upright posture
- (4) Binocular vision

Ans: (3)

[2012M]

Q2155. Which one of the following options gives one correct example each of convergent evolution and divergent evolution?

Convergent evolution -- Divergent evolution

- (1) Bones of forelimbs of vertebrates -- Wings of butterfly and birds
- (2) Eyes of octopus and mammals -- Bones of forelimbs of vertebrates
- (3) "Thorns of Bougainvillia and tendrils of Cucurbita" -- Eyes of Octopus and mammals
- (4) "Thorns of Bougainvillia and tendrils of Cucurbita" -- Wings of butterflies and birds

Ans: (2)

[NEET 2013]

Q2156. The finch species of Galapagos Islands are grouped according to their food sources. Which of the following is not a finch food?

- (1) Insects
- (2) Seeds
- (3) Tree buds
- (4) Carrion

Ans: (4)

[NEET 2013]

Q2157. Random unidirectional change in allele frequencies that occurs by chance in all populations and especially in small populations is known as

- (1) Natural selection
- (2) Mutation
- (3) Genetic drift
- (4) Migration

Ans: (3)

[NEET 2013]

Q2158. According to Darwin, The organic evolution is due to:

- (1) Reduced feeding efficiency in one species

- (2) Interspecific competition
- (3) Intraspecific competition
- (4) Competition within closely related species

Ans: (3)

[NEET 2013]

Q2159. Variation in gene frequencies within populations can occur by chance rather than by natural selection. This is referred to as:

- (1) Genetic load
- (2) Genetic drift
- (3) Genetic flow
- (4) Random mating

Ans: (2)

[NEET Kar. 2013]

Q2160. The process by which organisms with different evolutionary history evolve similar phenotypic adaptations in response to a common environmental challenge, is called:

- (1) Adaptive radiation
- (2) Convergent evolution
- (3) Natural selection
- (4) Non-random evolution

Ans: (2)

[NEET Kar. 2013]

Q2161. A cell coded protein formed in response to infection with most animal viruses is

- (1) Interferon
- (2) Antigen
- (3) Histone
- (4) Antibody

Ans: (1)

[NEET Kar. 2013]

Q2162. Opiate narcotic is

- (1) Heroin
- (2) Bhang
- (3) Nicotine
- (4) Charas

Ans: (1)

[1990]

Q2163. Cells involved in immune mechanism are

- (1) Eosinophils
- (2) Erythrocytes
- (3) Thrombocytes
- (4) Lymphocytes

Ans: (4)

[1993]

Q2164. Analgesic drugs

- (1) relieve fatigue
- (2) form tissues
- (3) cause pain
- (4) relieve pain

Ans: (4)

[1993]

Q2165. Dinosaurs dominated the world in which of the following geological era?

- (1) Jurassic
- (2) Devonian
- (3) Mesozoic
- (4) Coenozoic

Ans: (3)

[1994]

Q2166. Which of the following pair is not correctly matched?

- (1) Syphilis - *Trichuris trichiura*
- (2) Dengue fever - arbovirus
- (3) Malaria - *Plasmodium vivax*
- (4) Plague - *Yersinia pestis*

Ans: (1)

[1994]

Q2167. Sarcoma is cancer of

- (1) blood
- (2) epithelial tissue
- (3) endodermal tissues

(4) mesodermal tissue

Ans: (4)

[1994]

Q2168. A sexually transmitted disease caused by bacteria is

- (1) Syphilis
- (2) Leprosy
- (3) Pertussis
- (4) aids

Ans: (1)

[1994]

Q2169. Which one of the sexually transmitted diseases is correctly matched with its pathogen?

- (1) Gonorrhoea – Entamoeba histolytica
- (2) Urethritis – Bacillus anthracis
- (3) Soft sore – Bacillus brevis
- (4) Syphilis – Treponema pallidum

Ans: (4)

[1994]

Q2170. Obstacle to large scale transplantation of organs is

- (1) religious or ethnic considerations
- (2) insufficiency of organ donors
- (3) lack of effective surgical techniques
- (4) immunological rejection of foreign bodies

Ans: (4)

[1995]

Q2171. In which one of the following pairs of diseases both are caused by viruses?

- (1) Syphilis and AIDS
- (2) Tetanus and typhoid
- (3) Measles and rabies
- (4) Whooping cough and sleeping sickness

Ans: (3)

[1995]

Q2172. Hypersensitivity to an allergen is associated with

- (1) age of the individual

- (2) aberrant functioning of the immune mechanism
- (3) food habits
- (4) increase in ambient temperature

Ans: (2)

[1995]

Q2173. Which one of the following is an Indian medicinal plant?

- (1) *Oryza sativa*
- (2) *Saccharum officinarum*
- (3) *Solanum melongena*
- (4) *Rauwolfia serpentina*

Ans: (4)

[1996]

Q2174. The alkaloid ajmalicine is obtained from

- (1) *Curcuma*
- (2) *Atropa*
- (3) *Sarpgandha*
- (4) *Papaver*

Ans: (3)

[1996]

Q2175. Which of the following diseases is due to an allergic reaction?

- (1) Hay fever
- (2) Goitre
- (3) Enteric fever
- (4) Skin cancer

Ans: (1)

[1996]

Q2176. Diphtheria is caused by

- (1) excessive immune response by the host's body
- (2) poisons released from dead bacterial cells into the host tissue
- (3) poisons released by virus into the host tissues
- (4) poisons released by living bacterial cells into the host tissue

Ans: (2)

[1996]

Q2177. Which of the following symptoms indicate radiation

sickness?

- (1) Nausea and anaemia
- (2) Red and ulcerated skin
- (3) Ulcerated skin, nausea, loss of hair and anaemia
- (4) Nausea and loss of hair

Ans: (3)

[1996]

Q2178. Chemically an antibody is a

- (1) protein
- (2) lipid
- (3) lipoprotein
- (4) nucleoprotein

Ans: (1)

[1996, 99]

Q2179. Passive immunity was discovered by

- (1) Robert Koch
- (2) Edward Jenner
- (3) Louis Pasteur
- (4) Emil von Behring

Ans: (2)

[1997]

Q2180. Retroviruses are implicated as a cause for cancer in humans because they

- (1) may carry v-oncogenes in their genome
- (2) carry gene for reverse transcriptase
- (3) carry single stranded RNA as their genetic material
- (4) may carry cellular proto-oncogenes in their genome

Ans: (4)

[1997]

Q2181. Human immuno deficiency virus (HIV) has a protein coat and a genetic material which is

- (1) single stranded RNA
- (2) single stranded DNA
- (3) double stranded RNA
- (4) double stranded DNA

Ans: (1)

Q2182. The use of Cannabis products (bhang, ganja, charas, marijuana or hashish) causes

- (1) suppresses brain function and relieves pain
- (2) depression of brain activity and feeling of calmness
- (3) stimulates the nervous system and increases alertness and activity.
- (4) alters thoughts, perceptions and feelings

Ans: (4)

[1997]

Q2183. Which one of the following is an opiate narcotic?

- (1) Amphetamines
- (2) Barbiturates
- (3) LSD
- (4) Morphine

Ans: (4)

[1997]

Q2184. If a certain person shows production of interferons in his body, the chances are that he has got an infection of

- (1) malaria
- (2) typhoid
- (3) tetanus
- (4) measles

Ans: (4)

[1997]

Q2185. Which one of the following diseases is now considered nearly eradicated from India?

- (1) Small pox
- (2) Plague
- (3) Poliomyelitis
- (4) Kala azar

Ans: (1)

[1998, 2000]

Q2186. It is not possible to apply Koch's postulates to

- (1) Leprosy

- (2) Diptheria
- (3) Tuberculosis
- (4) Cholera

Ans: (1)

[1998]

Q2187. The cell in the human body invaded by the human immuno-deficiency virus (HIV) is

- (1) B-cell
- (2) T-helper cell
- (3) Macrophage
- (4) Erythrocyte

Ans: (2)

[1998]

Q2188. Vaccines are

- (1) curative medicines
- (2) treated bacteria or viruses or one of their proteins
- (3) monoclonal antibodies
- (4) MHC (major histocompatibility complex) proteins

Ans: (2)

[1999]

Q2189. Typhoid fever is caused by

- (1) Escherichia
- (2) Salmonella
- (3) Giardia
- (4) Shigella

Ans: (2)

[1999, 2006]

Q2190. Botulism caused by *Clostridium botulinum* affects the

- (1) spleen
- (2) intestine
- (3) lymph glands
- (4) neuromuscular junction

Ans: (4)

[1999]

Q2191. Small proteins produced by vertebrate cells in response to

viral infections inhibiting viral multiplication are known as

- (1) Interferons
- (2) Lipoproteins
- (3) Antitoxins
- (4) Immuglobulins

Ans: (1)

[1999]

Q2192. Bovine spongiform encephalopathy, a bovine disease is related to which human disease?

- (1) Encephalitis
- (2) Cerebral spondylitis
- (3) Kala-azar
- (4) Creutzfeldt-Jacob disease

Ans: (4)

[1999]

Q2193. Correctly match sexually transmitted disease with its pathogen?

- (1) Urethritis – Entamoeba gingivalis
- (2) Syphilis – Treponema pallidum
- (3) Gonorrhoea – Leishmania donovani
- (4) AIDS – Bacillus anthracis

Ans: (2)

[2000]

Q2194. Hybridoma cells are

- (1) only cells having oncogenes
- (2) nervous cells of frog
- (3) product of spore formation in bacteria
- (4) hybrid cells resulting from myeloma cells

Ans: (4)

[2000]

Q2195. During blood typing agglutination indicates that the

- (1) RBC carry certain antibodies
- (2) RBC carry certain antigens
- (3) Plasma contains certain antibodies
- (4) Plasma contains certain antigens

Ans: (2)

[2000]

Q2196. Reason of lung cancer

- (1) Cement factory
- (2) Asbestos
- (3) Bauxite mining
- (4) Calcium fluoride

Ans: (2)

[2000]

Q2197. Which of the following is most infectious disease?

- (1) Amoebiasis
- (2) Hepatitis - B
- (3) Malaria
- (4) AIDS

Ans: (2)

Q2198. Salmonella is related with

- (1) T.B.
- (2) Typhoid
- (3) Tetanus
- (4) Polio

Ans: (2)

[2001]

Q2199. Which one of the following is correct match?

- (1) Morphine — Hallucinogenic
- (2) Reserpine — Tranquilizer
- (3) Bhang — Analgesic
- (4) Cocaine — Opiate narcotic

Ans: (2)

[2001]

Q2200. For which of the following disease, there is preventive vaccine?

- (1) Syphilis
- (2) AIDS
- (3) Gonorrhoea
- (4) Hepatitis B

Ans: (4)

[2001]

Q2201. Carcinoma refers to

- (1) malignant tumours of the skin or mucous membrane
- (2) benign tumours of the connective tissue
- (3) malignant tumours of the colon
- (4) malignant tumours of the connective tissue

Ans: (1)

[2001]

Q2202. Short-lived immunity acquired from mother to foetus across placenta or through mother's milk to the infant is categorised as

- (1) passive immunity
- (2) innate non-specific immunity
- (3) cellular immunity
- (4) active immunity

Ans: (1)

[2001]

Q2203. Cancerous cells can easily be destroyed by radiations due to

- (1) fast mutation
- (2) rapid cell division
- (3) lack of oxygen
- (4) lack of nutrition

Ans: (2)

[2002]

Q2204. Which statement is correct about centre of origin of plant?

- (1) Climatic conditions more favourable
- (2) More diversity in improved varieties
- (3) None of these
- (4) Frequency of dominant gene is more

Ans: (4)

[2003]

Q2205. L. S. D. is

- (1) stimulant
- (2) hallucinogenic
- (3) tranquiliser
- (4) sedative

Ans: (2)

[2003]

Q2206. AIDS is caused by HIV that principally infects:

- (1) cytotoxic T cells
- (2) all lymphocytes
- (3) T_4 lymphocytes
- (4) activator B cells

Ans: (3)

[2003]

Q2207. ELISA is used to detect viruses, where

- (1) Alkaline phosphatase is the key reagent
- (2) DNA-probes are required
- (3) Catalase is the key reagent
- (4) Southern blotting is done

Ans: (1)

[2003]

Q2208. Which one of the following is not correctly matched

- (1) Aedes aegypti - Yellow fever
- (2) Glossina palpalis - Sleeping sickness
- (3) Anopheles culifacies- Leishmaniasis
- (4) Culex pipiens - Filariasis

Ans: (3)

[2004]

Q2209. Which one of the following conditions though harmful in itself, is also a potential saviour from a mosquito borne infectious disease?

- (1) Sickle cell anaemia
- (2) Leukemia
- (3) Pernicious anaemia
- (4) Thalassemia

Ans: (1)

[2004]

Q2210. What is true about T-lymphocytes in mammals?

- (1) These originate in lymphoid tissues
- (2) These are produced in thyroid
- (3) They scavenge damaged cells and cellular debris
- (4) There are three main types — cytotoxic T-cells, helper T-cells and suppressor T-cells

Ans: (1)

[2005]

Q2211. If you suspect major deficiency of antibodies in a person to which of the following would you look for confirmatory evidence?

- (1) haemocytes
- (2) serum globulins
- (3) serum albumins
- (4) fibrinogen in the plasma

Ans: (2)

[2005]

Q2212. Antibodies in our body are complex

- (1) glycoproteins
- (2) steroids
- (3) lipoproteins
- (4) prostaglandins

Ans: (1)

[2006]

Q2213. The 'blue baby' syndrome results from

- (1) excess of TDS (total dissolved solids)
- (2) methaemoglobin
- (3) excess of chloride
- (4) excess of dissolved oxygen

Ans: (2)

[2006]

Q2214. A person showing unpredictable moods, outbursts of emotion, quarrelsome behaviour and conflicts with other is suffering from

- (1) Addictive disorders
- (2) Borderline personality disorder (BPD)
- (3) Schizophrenia
- (4) Mood disorders

Ans: (2)

[2006]

Q2215. Which one of the following depresses brain activity and produced feelings of calmness, relaxation and drowsiness?

- (1) Amphetamines
- (2) Morphine
- (3) Hashish
- (4) Valium

Ans: (4)

[2007]

Q2216. To which type of barriers under innate immunity, do the saliva in the mouth and the tears from the eyes, belong?

- (1) Physiological barriers
- (2) Cytokine barriers
- (3) Physical barriers
- (4) Cellular barriers

Ans: (1)

[2007]

Q2217. Which one of the following is the correct statement regarding the particular psychotropic drug specified?

- (1) Morphine leads to delusions and disturbed emotions
- (2) Hashish causes after thought perceptions and hallucinations
- (3) Barbiturates cause relaxation and temporary euphoria
- (4) Opium stimulates nervous system and causes hallucinations

Ans: (2)

[2007]

Q2218. Match the disease in Column I with the appropriate items (pathogen/prevention/ treatment) in Column II. Column I Column II

- (1) Cholera (iii) DPT Vaccine
- (2) Amoebiasis (i) Treponema pallidum

- (3) Syphilis (iv) Use oral rehydration therapy
(4) Diphtheria (ii) Use only sterilized food and water

Ans: (3)

[2008]

Q2219. Increased asthmatics attacks in certain seasons are related to

- (1) low temperature
(2) eating fruits preserved in tin containers
(3) hot and humid environment.
(4) inhalation of seasonal pollen

Ans: (4)

[2008]

Q2220. Ultrasound of how much frequency is beamed into human body for sonography?

- (1) 45 - 70 MHZ
(2) 15 - 30 MHZ
(3) 30 - 45 MHZ.
(4) 1 - 15 MHZ

Ans: (4)

[2008]

Q2221. Which one of the following statements is correct?

- (1) Malignant tumours may exhibit metastasis.
(2) Benign tumours show the property of metastasis.
(3) Patients who have undergone surgery are given cannabinoids to relieve pain.
(4) Heroin accelerates body functions.

Ans: (1)

[2008]

Q2222. Which of the following is a pair of viral diseases?

- (1) Typhoid, tuberculosis
(2) Common cold, AIDS
(3) Ringworm, AIDS
(4) Dysentery, common cold

Ans: (2)

[2009]

Q2223. The letter T in T -lymphocyte refers to

- (1) Thymus
- (2) Thalamus
- (3) Thyroid
- (4) Tonsil

Ans: (1)

Q2224. A person likely to develop tetanus is immunised by administering

- (1) weakened germs
- (2) preformed antibodies
- (3) dead germs
- (4) wide spectrum antibiotics

Ans: (1)

[2009]

Q2225. Consider the following statements about biomedical technologies

- (1) Computerised axial tomography (CAT) shows detailed internal structure as seen in a section of body
- (2) During open heart surgery blood is circulated in the heart-lung machine
- (3) X-ray provides clear and detailed images of organs like prostate glands and lungs Which two of the above statements are correct?
- (4) Blockage in coronary arteries is removed by angiography

Ans: (1)

[2009]

Q2226. Where will you look for the sporozoites of the malarial parasite?

- (1) Spleen of infected humans
- (2) Saliva of infected female Anopheles mosquito
- (3) Salivary glands of freshly moulted female Anopheles mosquito
- (4) Red blood corpuscles of humans suffering from malaria

Ans: (2)

[2009]

Q2227. Which one of the following statements is correct with respect to AIDS?

- (1) AIDS patients are being fully cured cent per cent with proper care and nutrition
- (2) The HIV can be transmitted through eating food together with an infected person
- (3) The causative HIV retrovirus enters helper T - lymphocytes thus reducing their numbers
- (4) Drug addicts are least susceptible to HIV infection.

Ans: (3)

[2010]

Q2228. Widal test is used for the diagnosis of

- (1) Tuberculosis
- (2) Malaria
- (3) Typhoid
- (4) Pneumonia

Ans: (3)

[2010]

Q2229. Select the correct statement from the ones given below?

- (1) Chewing tobacco lowers blood pressure and heart rate
- (2) Barbiturates when given to criminals make them tell the truth
- (3) Cocaine is given to patients after surgery as it stimulates recovery
- (4) Morphine is often given to persons who have undergone surgery as a pain killer

Ans: (4)

[2010]

Q2230. Use of anti-histamines and steroids give a quick relief from

- (1) headache
- (2) nausea
- (3) allergy
- (4) cough

Ans: (1)

[2011]

Q2231. The pathogen *Microsporium* responsible for ringworm disease in humans belongs to the same kingdom of organisms as that of

- (1) Rhizopus, a mould
- (2) Taenia, a tapeworm
- (3) Ascaris, a round worm
- (4) Wuchereria, a filarial worm

Ans: (1)

[2011]

Q2232. A certain patient is suspected to be suffering from Acquired Immuno Deficiency Syndrome. Which diagnostic technique will you recommend for its detection?

- (1) Ultra sound
- (2) ELISA
- (3) WIDAL
- (4) MRI

Ans: (2)

[2011]

Q2233. Which one of the following acts as a physiological barrier to the entry of microorganisms in human body?

- (1) Monocytes
- (2) Epithelium of urogenital tract
- (3) Skin
- (4) Tears

Ans: (3)

[2011]

Q2234. Which one of the following is categorised as a parasite in true sense?

- (1) Head louse living on the human scalp as well as laying eggs on human hair
- (2) The female Anopheles bites and sucks blood from humans
- (3) The cuckoo (koel) lays its eggs in crow's nest.
- (4) Human foetus developing inside the uterus draws nourishment from the mother

Ans: (1)

[2011]

Q2235. At which stage of HIV infection does one usually show symptoms of AIDS?

- (1) When HIV replicates rapidly in helper T-lymphocytes and damages large number of these
 - (2) When the infecting retrovirus enters host cells
 - (3) Within 15 day of sexual contact with an infected person.
 - (4) When viral DNA is produced by reverse transcriptase
- Ans: (1)

[2011M]

Q2236. Widal Test is carried out to test:

- (1) HIV/AIDS
 - (2) Malaria
 - (3) Typhoid fever
 - (4) Diabetes mellitus
- Ans: (3)

[2011M]

Q2237. Motile zygote of Plasmodium occurs in:

- (1) Human RBCs
 - (2) Gut of female Anopheles
 - (3) Human liver
 - (4) Salivary glands of Anopheles
- Ans: (2)

[2011M]

Q2238. Select the correct statement with respect to diseases and immunisation?

- (1) Certain protozoans have been used to mass produce hepatitis B vaccine.
 - (2) If due to some reason B-and T-lymphocytes are damaged, the body will not produce antibodies against a pathogen
 - (3) Injection of snake antivenom against snake bite is an example of active immunisation
 - (4) Injection of dead/ inactivated pathogens causes passive immunity
- Ans: (2)

[2011M]

Q2239. Common cold is not cured by antibiotics because it is

- (1) caused by a Gram-negative bacterium
- (2) caused by a virus
- (3) not an infectious disease
- (4) caused by a Gram-positive bacterium

Ans: (2)

Q2240. Which one of the following option gives the correct matching of a disease with its causative organism and mode of infection. Disease – Causative ORGANISM -- Mode of Infection

- (1) Elephantiasis -- Wuchereria -- infected bancrofti water and food
- (2) Typhoid -- Salmonella typhii -- With inspired air
- (3) Malaria -- Plasmodium -- Bite of male vivax Anopheles mosquito
- (4) Pneumonia -- Streptococcus -- Droplet pneumoniae Infection

Ans: (4)

[2012]

Q2241. Read the following four statements (A-D). (A) Colostrum is recommended for the new born because it is rich in antigens. (B) Chikungunya is caused by a Gram negative bacterium. (C) Tissue culture has proved useful in obtaining virus-free plants. (D) Beer is manufactured by distillation of fermented grape juice. How many of the above statements are wrong?

- (1) Four
- (2) Two
- (3) One
- (4) Three

Ans: (2)

[2012]

Q2242. Cirrhosis of liver is caused by the chronic intake of

- (1) Tobacco (Chewing)
- (2) Opium
- (3) Cocaine
- (4) Alcohol

Ans: (4)

[2012]

Q2243. In which one of the following options the two examples are correctly matched with their particular type of immunity.

Examples -- Types of immunity

- (1) Saliva in mouth and Tear in eyes -- Physical barriers
- (2) Polymorphonuclear leukocytes and monocytes -- Cellular barriers

(3) Mucus coating of epithelium lining the urinogenital tract-and the HCl in stomach -- Physiological barriers

(4) Anti-tetanus and antisnake bite injection -- Active immunity

Ans: (2)

[2012]

Q2244. Which one of the following is not a property of cancerous cells whereas the remaining three are?

(1) They divide in an uncontrolled manner

(2) They compete with normal cells for vital nutrients.

(3) They show contact inhibition.

(4) They do not remain confined in the area of formation.

Ans: (3)

[2012]

Q2245. Common cold differs from pneumonia in, that:

(1) Pneumonia is caused by a virus while the common cold is caused by the bacterium Haemophilus influenzae.

(2) Pneumonia is a communicable disease whereas the common cold is a nutritional deficiency disease.

(3) Pneumonia pathogen infects alveoli whereas the common cold affects nose and respiratory passage but not the lungs.

(4) Pneumonia can be prevented by a live attenuated bacterial vaccine whereas the common cold has no effective vaccine.

Ans: (3)

[2012M]

Q2246. Identify the site where Wuchereria bancrofti is normally found on human body

(1) Blood vessels of the thigh region

(2) Lymphatic vessels of the lower limbs

(3) Skin between the fingers

(4) Muscles of the legs

Ans: (2)

Q2247. The cell-mediated immunity inside the human body is carried out by:

(1) Erythrocytes

(2) B-lymphocytes

- (3) T-lymphocytes
 - (4) Thrombocytes
- Ans: (3)

[2012M]

Q2248. Infection of *Ascaris* usually occurs by:

- (1) Mosquito bite.
- (2) Eating imperfectly cooked pork.
- (3) Drinking water containing eggs of *Ascaris*.
- (4) Tse-tse fly.

Ans: (3)

[NEET 2013]

Q2249. Which one of the following statements is correct with respect to immunity?

- (1) Antibodies are protein molecules, each of which has four light chains.
- (2) Preformed antibodies need to be injected to treat the bite by a viper snake.
- (3) Rejection of a kidney graft is the function of B-lymphocytes.
- (4) The antibodies against small pox pathogen are produced by T – lymphocytes.

Ans: (2)

[NEET 2013]

Q2250.

Ans: (3)

[NEET Kar. 2013]

Q2251. Haploid plant cultures are obtained from

- (1) pollen grains
- (2) leaves
- (3) buds
- (4) root tip

Ans: (1)

[NEET Kar. 2013]

Q2252. Most of our crop plants are

- (1) mixed genotypic in origin
- (2) autopolyploid in origin
- (3) heterozygous in origin
- (4) allopolyploid in origin

Ans: (2)

[1989]

Q2253. Haploid plants are preferred over diploids for mutation study because in haploids

- (1) culturing is easier
- (2) recessive mutation expresses immediately
- (3) dominant mutation expresses immediately
- (4) induction of mutations is easier

Ans: (2)

[1993]

Q2254. In crop improvement programme, haploids are important because they

- (1) grow better under adverse conditions
- (2) require one half of nutrients
- (3) form perfect homozygous
- (4) are helpful in study of meiosis

Ans: (3)

[1994]

Q2255. Which one of the following is a hallucinogenic drug?

- (1) Morphine
- (2) Opium
- (3) Lysergic acid diethylamide
- (4) Caffeine

Ans: (3)

[1994]

Q2256. Pasteurization of milk involve heating for

- (1) 30 minutes at about 65°C
- (2) 60 minutes at about 90°C
- (3) 60 minutes at 100°C
- (4) 30 minutes at about 50°C

Ans: (1)

[1995]

Q2257. The long-term prospects for a truly human civilization depend in a large measure on

- (1) colonization of underpopulated areas

- (2) the ability of humanity to moderate its fecundity
- (3) control of human diseases
- (4) increasing the food production

Ans: (3)

[1995]

Q2258. The silkworm silk is the product of

- (1) salivary gland of the larva
- (2) cuticle of the larva
- (3) salivary gland of the adult
- (4) cuticle of the adult

Ans: (1)

[1995]

Q2259. One of the major difficulties in the biological control of insect pests is the

- (1) predator does not always survive when transferred to a new environment
- (2) practical difficulty of introducing the predator to specific areas
- (3) the predator develops a preference to other diets and may itself become a pest.
- (4) method is less effective as compared with the use of insecticides

Ans: (3)

[1996]

Q2260. The rotenone is

- (1) a natural herbicide
- (2) an insect hormone
- (3) a natural insecticide
- (4) a bioherbicide

Ans: (3)

[1996]

Q2261. Which of the following has been recently used for increasing productivity of super milk cows?

- (1) Embryo transplantation only
- (2) Artificial insemination by a pedigreed bull only
- (3) A combination of superovulation, artificial insemination and embryo transplantation into a 'carrier cow' (surrogate mother)
- (4) Superovulation of a high production cow only

Ans: (3)

[1996]

Q2262. Of the world's top five crops in terms of annual production

- (1) four belong to Poaceae (Gramineae) and one to Solanaceae
- (2) all five belong to the family Poaceae (Gramineae)
- (3) three belong to Poaceae (Gramineae), one to Leguminosae and one to Solanaceae.
- (4) four belong to Poaceae (Gramineae) and one to Leguminosae

Ans: (1)

[1996]

Q2263. Suppression of reproduction of one type of organism by utilizing some features of its biology or physiology to destroy it or by use of another organism is known as

- (1) biological control
- (2) competition
- (3) physiological control
- (4) predation

Ans: (1)

[1996]

Q2264. Which one of the following is an exotic Indian fish?

- (1) *Cyprinus carpio*
- (2) *Catla catla*
- (3) *Lebeo rohita*
- (4) *Heteropneustes fossilis*

Ans: (1)

[1997]

Q2265. The earliest animal to have been domesticated by man was most likely the

- (1) dog
- (2) horse
- (3) pig
- (4) cow

Ans: (1)

[1997]

Q2266. Biological control component is central to advanced agricultural production. Which of the following is used as a third generation pesticide?

- (1) Pathogens
- (2) Insect repellants
- (3) Insect hormone analogues
- (4) Pheromones

Ans: (4)

[1997]

Q2267. Lathyrism which is caused by consumption of Khesari dal is a disease characterised by

- (1) mental retardation, delay in the onset of puberty and cardiovascular abnormalities
- (2) reproductive failure, susceptibility to diabetes mellitus and skeletal abnormalities
- (3) gross skeletal deformation and thinning of collagen fibres and fibrils
- (4) retardation of body growth, precocious puberty and renal dysfunction

Ans: (3)

[1997]

Q2268. The reason why vegetatively reproducing crop plants are best suited for maintaining hybrid vigour is that

- (1) they are more resistant to diseases
- (2) once a desired hybrid has been produced there are few chances of losing it
- (3) they can be easily propagated
- (4) they have a longer life span

Ans: (2)

[1998]

Q2269. Honey is

- (1) neutral
- (2) acidic
- (3) acidic when fresh and alkaline when old
- (4) alkaline

Ans: (2)

[1998]

Q2270. In the silk worm, if no juvenile hormone (JH) is present

when it moults, it will

- (1) moult into pupa
- (2) die
- (3) moult into an adult
- (4) moult into another larval stage

Ans: (4)

[1998]

Q2271. The first transgenic crop was

- (1) tobacco
- (2) pea
- (3) cotton
- (4) flax

Ans: (1)

[1998]

Q2272. Which one of the following insecticides is more stable in the environment?

- (1) Camphechlor
- (2) DDT
- (3) Malathion
- (4) Diazinon

Ans: (2)

[1998]

Q2273. What is Agent Orange?

- (1) A biodegradable insecticide
- (2) Colour used in fluorescent lamps
- (3) A hazardous chemical used in luminous paints
- (4) A weedicide containing dioxin

Ans: (4)

[1998]

Q2274. Which one among the following chemicals is used for causing defoliation of forest trees?

- (1) 2, 4-Dichlorophenoxy acetic acid
- (2) Phosphon-D
- (3) Amo-1618
- (4) Malic hydrazide

Ans: (1)

[1999]

Q2275. Which of the following pesticides is an acetylcholinesterase inhibitor?

- (1) Malathion
- (2) Y-BHC
- (3) Aldrin
- (4) Endosulfan

Ans: (1)

[1999]

Q2276. Before European invader which vegetable was absent in India?

- (1) Maize and Chichinda
- (2) Potato and Tomato
- (3) Brinjal and Lady's finger
- (4) Simla mirch and Brinjal

Ans: (2)

[1999]

Q2277. What is the best pH of soil for cultivation of plants?

- (1) 4.5 – 8.5
- (2) 3.4 – 5.4
- (3) 5.6 – 6.5
- (4) 6.5 – 7.5

Ans: (4)

[1999]

Q2278. Which one of the following statement is correct in relation to honey bees?

- (1) Beewax is a waste product of honey bees
- (2) *Apis indica* is the largest wild honey bee in India
- (3) Communication in honey bees was discovered by Karl Von Frisch
- (4) Honey is predominantly sucrose and arabinose

Ans: (3)

[2000]

Q2279. The worker honey bee normally lives for about

- (1) 90 days

- (2) 15 days
- (3) 10 days
- (4) 30 days

Ans: (1)

[2001]

Q2280. The new varieties of plants are produced by

- (1) introduction and mutation
- (2) selection and hybridization
- (3) selection and intro
- (4) mutation and selection

Ans: (2)

[2001]

Q2281. Which endangered animal is the source of world's finest, lightest, warmest and most expensive wool the shahtoosh?

- (1) Cheetal
- (2) Chiru
- (3) Kashmiri goat
- (4) Nilgai

Ans: (3)

[2001]

Q2282. In tissue culture medium, the embryoids formed from pollen grains is due to

- (1) double fertilization
- (2) cellular totipotency
- (3) test – tube culture
- (4) organogenesis

Ans: (2)

[2002]

Q2283. Reason of fast speciation in present day crop plants is

- (1) polyploidy
- (2) mutation
- (3) sexual reproduction
- (4) isolation

Ans: (1)

[2002]

Q2284. Which of the following crops have been brought to India from New world?

- (1) Tea, rubber, mango
- (2) Cashewnut, potato, rubber
- (3) Coffee
- (4) Mango, tea

Ans: (2)

[2002]

Q2285. In Lederberg's replica experiment what shall be used to obtain streptomycin-resistant strain?

- (1) only minimal medium
- (2) minimal medium and streptomycin
- (3) only complete medium
- (4) complete medium and streptomycin

Ans: (4)

[2003]

Q2286. The technique of obtaining large number of plantlets by tissue culture method is called

- (1) Micropropagation
- (2) Plantlet culture
- (3) Macropropagation
- (4) Organ culture

Ans: (2)

[2003]

Q2287. The most likely reason for the development of resistance against pesticides in insects damaging a crop is

- (1) directed mutations
- (2) random mutations
- (3) acquired heritable changes
- (4) genetic recombination

Ans: (2)

[2003]

Q2288. India's wheat yield revolution in the 1960s was possible primarily due to

- (1) mutations resulting in plant height reduction

- (2) hybrid seeds
- (3) quantitative trait mutations
- (4) increased chlorophyll content

Ans: (1)

[2004]

Q2289. Cellular totipotency is demonstrated by

- (1) all plant cells
- (2) only bacterial cells
- (3) all eukaryotic cells
- (4) only gymnosperm cells

Ans: (1)

[2004]

Q2290. Which of the following plants are used as green manure in crop fields and in sandy soils?

- (1) Calotropis procera and Phyllanthus niruri
- (2) Dichanthium annulatum and Azolla nilotica
- (3) Saccharum munja and Lantana camara
- (4) Crotalaria juncea and Alhagi camelorum

Ans: (4)

[2004]

Q2291. Farmers in a particular region were concerned that premature yellowing of leaves of a pulse crop might cause decrease in the yield. Which treatment could be most beneficial to obtain maximum seed yield?

- (1) Application of iron and magnesium to promote synthesis of chlorophyll
- (2) Treatment of the plants with cytokinins along with a small dose of nitrogenous fertilizer
- (3) Frequent irrigation of the crop
- (4) Removal of all yellow leaves and spraying the remaining green leaves with 2, 4, 5- trichlorophenoxy acetic acid

Ans: (1)

[2005]

Q2292. Crop plants grown in monoculture are

- (1) highly prone to pests
- (2) free from intraspecific competition

- (3) low in yield
- (4) characterised by poor root system

Ans: (1)

[2005]

Q2293. In order to obtain virus-free plants through tissue culture the best method is

- (1) Meristem culture
- (2) Embryo rescue
- (3) Protoplast culture
- (4) Anther culture

Ans: (1)

[2006]

Q2294. The world's highly prized wool yielding 'Pashmina' breed is

- (1) goat-sheep cross
- (2) goat
- (3) Kashmir sheep-Afghan sheep cross
- (4) sheep

Ans: (2)

[2006]

Q2295. Three crops that contribute maximum to global food grain production are

- (1) Wheat, maize and sorghum
- (2) Wheat, rice and maize
- (3) Rice, maize and sorghum
- (4) Wheat, rice and barley

Ans: (2)

[2006]

Q2296. Parthenocarpic tomato fruits can be produced by

- (1) treating the plants with phenylmercuric acetate
- (2) treating the plants with low concentrations of gibberellic acid and auxins
- (3) removing androecium of flowers before pollen grains are released
- (4) raising the plants from vernalized seeds

Ans: (2)

[2006]

Q2297. In maize, hybrid vigour is exploited by

- (1) inducing mutations
- (2) crossing of two inbred parental lines
- (3) bombarding the protoplast with DNA
- (4) harvesting seeds from the most productive plants

Ans: (2)

[2006]

Q2298. Which one of the following is the most suitable medium for culture of *Drosophila melanogaster*?

- (1) Cow dung
- (2) Agar agar
- (3) Moist bread
- (4) Ripe banana

Ans: (4)

[2006]

Q2299. Curing of tea leaves is brought about by the activity of

- (1) fungi
- (2) mycorrhiza
- (3) bacteria
- (4) viruses

Ans: (3)

[2006]

Q2300. Triticale, the first man-made cereal crop, has been obtained by crossing wheat with

- (1) barley
- (2) pearl millet
- (3) rye
- (4) sugarcane

Ans: (3)

[2006]

Q2301. Compared to a bull a bullock is docile because of

- (1) lower levels of adrenaline/ noradrenaline in its blood
- (2) higher levels of cortisone
- (3) higher levels of thyroxine.
- (4) lower levels of blood testosterone

Ans: (4)

[2007]

Q2302. Which one of the following pairs is mismatched?

- (1) Bombyx mori - silk
- (2) Apis indica - honey
- (3) Pila globosa - pearl
- (4) Kenia lacca - lac

Ans: (3)

[2007]

Q2303. In maize, hybrid vigour is exploited by

- (1) inducing mutations
- (2) crossing of two inbred parental lines
- (3) bombarding the seeds with DNA.
- (4) harvesting seeds from the most productive plants

Ans: (2)

[2007]

Q2304. Which one of the following pairs of organisms are exotic species introduced in India?

- (1) Nile perch, Ficus religiosa
- (2) Lantana camara, water hyacinth
- (3) Ficus religiosa, Lantana camara
- (4) Water hyacinth, Prosopis cineraria

Ans: (2)

[2007]

Q2305. Which one of the following is being utilized as a source of biodiesel in the Indian countryside?

- (1) Pongamia
- (2) Betroot
- (3) Euphorbia
- (4) Sugarcane

Ans: (1)

[2007]

Q2306. Which of the following is not used as a biopesticide?

- (1) Xanthomonas campestris
- (2) Trichoderma harzianum

- (3) *Bacillus thuringiensis*
- (4) Nuclear Polyhedrosis Virus (NPV)

Ans: (1)

[2007]

Q2307. What is antisense technology?

- (4) RNA polymerase producing DNA
- (2) A cell displaying a foreign antigen used for synthesis of antigens
- (4) Production of somaclonal variants in tissue cultures
- (e) When a piece of RNA that is complementary in sequence is used to stop expression of a specific gene

Ans: (1)

[2008]

Q2308. Which one of the following proved effective for biological control of nematodal disease in plants?

- (1) *Gliocladium virens*
- (2) *Pisolithus tinctorius*
- (3) *Paecilomyces lilacinus*
- (4) *Pseudomonas cepacia*

Ans: (1)

[2008]

Q2309. Consider the following four measures (a-d) that could be taken to successfully grow chickpea in an area where bacteri blight disease is common

- (1) Use of only disease-free seeds
- (2) Spray with Bordeaux mixture
- (3) Use of varieties resistant to the disease Which two of the above measures can control the disease?
- (4) Control of the insect vector of the disease pathogen

Ans: (1)

[2008]

Q2310. Which one of the following is a viral disease of poultry?

- (1) Pasteurellosis
- (2) Coryza
- (3) Salmonellosis.
- (4) New castle disease

Ans: (4)

[2009]

Q2311. Himgiri developed by hybridisation and selection for disease resistance against rust pathogens is a variety of

- (1) sugarcane
- (2) chilli
- (3) wheat
- (4) maize

Ans: (3)

[2009]

Q2312. Jaya and Ratna developed for green revolution in India are the varieties of

- (1) wheat
- (2) maize
- (3) bajra
- (4) rice

Ans: (4)

[2010]

Q2313. An improved variety of transgenic basmati rice

- (1) is completely resistant to all insect pests and diseases of paddy
- (2) does not require chemical fertilizers and growth hormones
- (3) gives high yield but has no characteristic aroma
- (4) gives high yield and is rich in vitamin A

Ans: (4)

[2010]

Q2314. Breeding of crops with high levels of minerals, vitamins and proteins is called

- (1) Biomagnification
- (2) Somatic hybridisation
- (3) Micropropagation
- (4) Biofortification

Ans: (4)

[2011]

Q2315. Somaclones are obtained by

- (1) genetic engineering

- (2) plant breeding
- (3) tissue culture
- (4) irradiation

Ans: (3)

[2011]

Q2316. Consider the following four statements (A-D) and select the option which includes all the correct ones only. (1) Single cell Spirulina can produce large quantities of food rich in protein, minerals, vitamins etc. (2) Body weight-wise the micro-organism Methylophilus methylotrophus may be able to produce several times more proteins than the cows per day. (3) Common button mushrooms are a very rich source of vitamin C. (4) A rice variety has been developed which is very rich in calcium. Options:

- (1) Statements (2), (1) and (4)
- (2) Statements (3), (4)
- (3) Statements (1), (2)
- (4) Statements (1), (3) and (4)

Ans: (3)

[2011]

Q2317. Green revolution in India occurred during

- (1) 1980.s
- (2) 1960.s
- (3) 1950.s
- (4) 1970.s

Ans: (2)

[2012]

Q2318. Which one of the following is a case of wrong matching

- (1) Micropropagation - in vitro production of plants in large numbers.
- (2) Somatic hybridization - Fusion of two diverse cells
- (3) Callus - Unorganised mass of cell produced in tissue culture
- (4) Vector DNA -Site for t-RNA synthesis.

Ans: (4)

[2012]

Q2319. Which part would be most suitable for raising virus-free

plants for micropropagation?

- (1) Meristem
- (2) Bark
- (3) Node
- (4) Vascular tissue

Ans: (1)

[2012M]

Q2320. The process of RNA interference has been used in the development of plants resistant to

- (1) viruses
- (2) nematodes
- (3) insects
- (4) fungi

Ans: (2)

[2012M]

Q2321. Which one thing is not true about antibiotics?

- (1) Each antibiotic is effective only against one particular kind of germ
- (2) The term “antibiotic” was coined by Selman Waksman in 1942
- (3) Some persons can be allergic to a particular antibiotic
- (4) First antibiotic was discovered by Alexander Flemming

Ans: (1)

[NEET 2013]

Q2322. CHAPTER 32 Microbes in Human Welfare [NEET Kar. 2013]

Q2323. Tissue culture technique can produce infinite number of new plants from a small parental tissue. The economic importance of the technique is in raising

- (1) Homozygous diploid plants
- (2) Variants through picking up somaclonal variations
- (3) Development of new species
- (4) Genetically uniform population identical to the original parent

Ans: (4)

[NEET Kar. 2013]

Q2324. Which of the following has maximum genetic diversity in

India?

- (1) Wheat
- (2) Rice
- (3) Groundnut
- (4) Mango

Ans: (2)

Q2325. In plant breeding programmes, the entire collection (of plants/seeds) having all the diverse alleles for all genes in a given crop is called:

- (1) germplasm collection
- (2) cross-hybridisation among the selected parents.
- (3) selection of superior recombinants.
- (4) evaluation and selection of parents.

Ans: (1)

[1996]

Q2326. The aquatic fern, which is an excellent biofertiliser is

- (1) Marsilia
- (2) Azolla
- (3) Pteridium
- (4) Salvinia

Ans: (2)

[1997]

Q2327. Farmers have reported over 50% higher yields of rice by using the biofertilizer

- (1) Legume-Rhizobium symbiosis
- (2) Azolla pinnata
- (3) Mycorrhiza
- (4) Cyanobacteria

Ans: (2)

[1997]

Q2328. Which one of the following is non-symbiotic biofertilizer?

- (1) Rhizobium
- (2) Azotobacter

- (3) VAM.
(4) Anabaena
Ans: (2)

[1998]

Q2329. Gobar gas contains mainly

- (1) $\text{CO}_2 + \text{H}_2$
(2) $\text{CH}_4 + \text{CO}_2$
(3) $\text{CO}_2 + \text{SO}_2$
(4) $\text{CH}_4 + \text{O}_2$

Ans: (2)

Q2330. Which of the following is likely to be achieved in the coming two decades?

- (1) Correction of genetic basis of diabetes mellitus
(2) A complete understanding of the brainmind interaction
(3) Production of biodegradable plastic rather than cellulose by higher plants
(4) Control of cancer

Ans: (4)

[1999]

Q2331. Trichoderma harzianum has proved a useful microorganism for

- (1) gene transfer in higher plants
(2) bioremediation of contaminated soils
(3) biological control of soil-borne plant pathogens
(4) reclamation of wastelands

Ans: (3)

[2001]

Q2332. Which one of the following pairs is wrongly matched?

- (1) Coliforms - vinegar
(2) Yeast - ethanol
(3) Methanogens - gobar gas.
(4) Streptomyces - antibiotic

Ans: (1)

[2006]

Q2333. Probiotics are

- (1) live microbial food supplement
- (2) cancer inducing microbes
- (3) safe antibiotics
- (4) new kind of food allergens

Ans: (1)

[2007]

Q2334. Two microbes found to be very useful in genetic engineering are

- (1) Crown gall bacterium and *Caenorhabditis elegans*
- (2) *Vibrio cholerae* and a tailed bacteriophage
- (3) *Escherichia coli* and *Agrobacterium tumefaciens*
- (4) *Diplococcus* sp. and *Pseudomonas* sp.

Ans: (3)

[2007]

Q2335. Which of the following is pair of biofertilizers?

- (1) *Rhizobium* and grasses
- (2) *Azolla* and BGA
- (3) *Salmonella* and *E. coli*
- (4) *Nostoc* and legumes

Ans: (2)

[2008]

Q2336. Which one of the following is not used in organic farming?

- (1) *Oscillatoria*
- (2) *Glomus*
- (3) Snail
- (4) Earthworm

Ans: (3)

[2008]

Q2337. The common nitrogen fixer in paddy fields is

- (1) *Oscillatoria*
- (2) *Rhizobium*
- (3) *Frankia*
- (4) *Azospirillum*

Ans: (4)

[2008]

Q2338. A common biocontrol agent for the control of plant diseases is

- (1) Glomus
- (2) Baculovirus
- (3) Trichoderma
- (4) Bacillus thuringiensis

Ans: (3)

[2010]

Q2339. CryI endotoxins obtained from Bacillus thuringiensis are effective against

- (1) nematodes
- (2) mosquitoes
- (3) boll worms
- (4) flies

Ans: (3)

[2010]

Q2340. Human insulin is being commercially produced from a transgenic species of

- (1) Rhizobium
- (2) Escherichia
- (3) Saccharomyces
- (4) Mycobacterium

Ans: (2)

[2010]

Q2341. Monascus purpureus is a yeast used commercially in the production of:

- (1) Citric acid
- (2) ethanol
- (3) blood cholesterol lowering statins
- (4) streptokinase for removing clots from the blood vessels.

Ans: (3)

[2011]

Q2342. Which one of the following is a wrong matching of a

microbe and its industrial product, while the remaining three are correct?

- (1) Clostridium butylicum - lactic acid
- (2) Yeast - statins
- (3) Aspergillus niger - citric acid
- (4) Acetobacter aceti - acid

Ans: (1)

[2011]

Q2343. Read the following statement having two blanks (A and B):
“A drug used for ----- (A) ----- patients is obtained from a species of the organism ----- (B) -----.” The one correct option for the two blanks is Blank - A Blank - B

- (1) Swine flu -- Monascus
- (2) Heart -- Penicillium
- (3) AIDS -- Pseudomonas
- (4) Organ-transplant -- Trichoderma

Ans: (4)

[2011M]

Q2344. Which one of the following help in absorption of phosphorus from soil by plants?

- (1) Frankia
- (2) Glomus
- (3) Anabaena
- (4) Rhizobium

Ans: (2)

[2011M]

Q2345. An organism used as a biofertilizer for raising soyabean crops is

- (1) Rhizobium
- (2) Azotobacter
- (3) Nostoc
- (4) Azospirillum

Ans: (1)

[2012]

Q2346. Which one of the following is an example of carrying out biological control of pests/ diseases using microbes?

- (1) Bt - cotton to increase cotton yield
- (2) Trichoderma sp. against certain plant pathogens
- (3) Lady bird beetle against aphids in mustard
- (4) Nucleopolyhedrovirus against white rust in Brassica

Ans: (2)

[2012]

Q2347. A nitrogen-fixing microbe associated with Azolla in rice fields is:

- (1) Frankia
- (2) Spirulina
- (3) Tolypothrix
- (4) Anabaena

Ans: (4)

[2012]

Q2348. Yeast is used in the production of

- (1) Bread and beer
- (2) Citric acid and lactic acid
- (3) Cheese and butter
- (4) Lipase and pectinase

Ans: (1)

[2012]

Q2349. Which one of the following microbes forms symbiotic association with plants and helps them in their nutrition

- (1) Glomus
- (2) Azotobacter
- (3) Trichoderma
- (4) Aspergillus

Ans: (1)

[2012]

Q2350. A patient brought to a hospital with myocardial infarction is normally immediately given:

- (1) Cyclosporin-A
- (2) Penicillin

- (3) Statins
 - (4) Streptokinase
- Ans: (4)

[2012]

Q2351. A good producer of citric acid is:

- (1) Saccharomyces
- (2) Pseudomonas
- (3) Aspergillus
- (4) Clostridium

Ans: (3)

[2012]

Q2352. During sewage treatment, biogases are produced which include:

- (1) hydrogen sulphide, nitrogen, methane
- (2) methane, oxygen, hydrogen sulphide
- (3) methane, hydrogen sulphide, carbon dioxide
- (4) hydrogen sulphide, methane, sulphur dioxide

Ans: (3)

[2012M]

Q2353. The domestic sewage in large cities

- (1) when treated in STPs does not really require the aeration step as the sewage contains adequate oxygen.
- (2) has a high BOD as it contains both aerobic and anaerobic bacteria.
- (3) has very high amounts of suspended solids and dissolved salts.
- (4) is processed by aerobic and then anaerobic bacteria in the secondary treatment in Sewage Treatment Plants (STPs).

Ans: (4)

[2012M]

Q2354. In gobar gas, the maximum amount is that of

- (1) propane
- (2) butane
- (3) carbon dioxide
- (4) methane

Ans: (4)

[NEET 2013]

Q2355. Maximum nutritional diversity is found in the group.

- (1) Monera
- (2) Fungi
- (3) Plantae
- (4) Animalia

Ans: (1)

[NEET 2013]

Q2356. Polyethylene glycol method is used for

- (1) energy production from sewage
- (2) biodiesel production
- (3) gene transfer without a vector
- (4) seedless fruit production

Ans: (3)

[NEET Kar. 2013]

Q2357. The linking of antibiotic resistance gene with the plasmid vector became possible with

- (1) DNA polymerase
- (2) DNA ligase
- (3) Exonucleases
- (4) Endonucleases

Ans: (2)

[2002]

Q2358. Gel electrophoresis is used for

- (1) construction of recombinant DNA by joining with cloning vectors
- (2) cutting of DNA into fragments
- (3) isolation of DNA molecule
- (4) separation of DNA fragments according to their size

Ans: (4)

Q2359. Introduction of food plants developed by genetic engineering is not desirable because

- (1) this method is costly
- (2) economy of developing countries may suffer
- (3) there is danger of entry of viruses and toxins with introduced crop
- (4) these products are less tasty as compared to the already existing products

Ans: (3)

[2008]

Q2360. Microbe used for biocontrol of pest butterfly caterpillars is

- (1) *Bacillus thuringiensis*
- (2) *Trichoderma* sp.
- (3) *Streptococcus* sp.
- (4) *Saccharomyces cerevisiae*

Ans: (1)

[2009]

Q2361. Restriction endonucleases are enzymes which

- (1) restrict the action of the enzyme DNA polymerase
- (2) make cuts at specific positions within the DNA molecule
- (3) remove nucleotides from the ends of the DNA molecule
- (4) recognize a specific nucleotide sequence for binding of DNA ligase

Ans: (2)

[2010]

Q2362. DNA or RNA segment tagged with a radioactive molecule is called

- (1) Clone
- (2) Vector
- (3) Plasmid
- (4) Probe

Ans: (4)

[2010]

Q2363. Which one of the following palindromic base sequences in DNA can be easily cut at about the middle by some particular restriction enzyme?

- (1) 5'.....GAATTC.....3' 3'.....CTTAAG.....5'
- (2) 5'.....CGTTCG.....3' 3'.....ATGGTA.....5'
- (3) 5'.....CACGTA.....3' 3'.....CTCAGT.....5'
- (4) 5'.....GATATG.....3' 3'.....CTACTA.....5'

Ans: (1)

[2010]

Q2364. Which one of the following is used as vector for cloning

genes into higher organisms?

- (1) Rhizopus nigricans
- (2) Baculovirus
- (3) Retrovirus
- (4) Salmonella typhimurium

Ans: (3)

[2010]

Q2365. Select the correct statement from the following?

- (1) Biogas, commonly called gobar gas, is pure methane
- (2) Biogas is produced by the activity of aerobic bacteria on animal waste
- (3) Activated sludge-sediment in settlement tanks of sewage treatment plant is a rich source of aerobic bacteria
- (4) Methanobacterium is an aerobic bacterium found in rumen of cattle

Ans: (3)

[2010]

Q2366. Which one of the given options correctly identifies its certain component (s)?

- (1) Hind III, EcoRI - selectable markers
- (2) ori - original restriction enzyme
- (3) ampR, tetR - antibiotic resistance genes
- (4) rop-reduced osmotic pressure

Ans: (3)

Q2367. The figure below is the diagrammatic representation of the E.Coli vector pBR

Ans: (3)

[2011]

Q2368. Bacillus thuringiensis forms protein crystals which contain insecticidal protein.

- (1) is activated by acid pH of the foregut of the insect pest.
- (2) binds with epithelial cells of midgut of the insect pest ultimately killing it
- (3) does not kill the carrier bacterium which is itself resistant to this toxin
- (4) is coded by several genes including the gene cry

Ans: (2)

[2011M]

Q2369. Agarose extracted from sea weeds finds use in:

- (1) PCR
- (2) Spectrophotometry
- (3) Gel electrophoresis
- (4) Tissue culture

Ans: (3)

Q2370. There is a restriction endonuclease called EcoRI. What does .co. part in it stand for?

- (1) coenzyme
- (2) colon
- (3) coli
- (4) coelom

Ans: (3)

[2012]

Q2371. Biolistics (gene-gun) is suitable for

- (1) Transformation of plant cells.
- (2) DNA finger printing.
- (3) Constructing recombinant DNA by joining with vectors.
- (4) Disarming pathogen vectors.

Ans: (2)

[2012]

Q2372. For transformation, micro-particles coated with DNA to be bombarded with gene gun are made up of:

- (1) Silicon or Platinum
- (2) Silver or Platinum
- (3) Gold or Tungsten
- (4) Platinum or Zinc

Ans: (3)

[2012]

Q2373. Which one is a true statement regarding DNA polymerase used in PCR

- (1) It is isolated from a virus
- (2) It is used to ligate introduced DNA in recipient cell
- (3) It remains active at high temperature
- (4) It serves as a selectable marker

Ans: (3)

[2012]

Q2374. A single strand of nucleic acid tagged with a radioactive molecule is called:

- (1) Plasmid
- (2) Vector
- (3) Probe
- (4) Selectable marker

Ans: (3)

[2012]

Q2375. PCR and Restriction Fragment Length Polymorphism are the methods for:

- (1) DNA sequencing
- (2) Study of enzymes
- (3) Genetic Fingerprinting
- (4) Genetic transformation

Ans: (3)

[2012M]

Q2376. The colonies of recombinant bacteria appear white in contrast to blue colonies of nonrecombinant bacteria because of:

- (1) Inactivation of glycosidase enzyme in recombinant bacteria
- (2) Insertional inactivation of α -galactosidase in non-recombinant bacteria
- (3) Non-recombinant bacteria containing β -galactosidase
- (4) Insertional inactivation of α -galactosidase in recombinant bacteria

Ans: (1)

[2012M]

Q2377. DNA fragments generated by the restriction endonucleases in a chemical reaction can be separated by:

- (1) Restriction mapping
- (2) Polymerase chain reaction
- (3) Centrifugation
- (4) Electrophoresis

Ans: (3)

[2012M]

Q2378. Which one of the following represents a palindromic

sequence in DNA?

- (1) 5' - CATTAG - 3' 3' - GATAAC - 5'
- (2) 5' - GAATTC - 3' 3' - CTTAAG - 5'
- (3) 5' - GATACC - 3' 3' - CCTAAG - 5'
- (4) 5' - CCAATG - 3' 3' - GAATCC - 5'

Ans: (4)

[2012M]

Q2379. The figure below shows three steps (A, B, C) of Polymerase Chain Reaction (PCR). Select the option giving correct identification together with what it represents?

- (1) C - Extension in the presence of heat stable DNA polymerase.
- (2) B - Denaturation at a temperature of about 98°C separating the two DNA strands.
- (3) A - Annealing with two sets of primers.
- (4) A - Denaturation at a temperature of about 50°C.

Ans: (2)

[NEET 2013]

Q2380. In genetic engineering, the antibiotics are used

- (1) to keep the cultures free of infection.
- (2) as selectable markers.
- (3) as sequences from where replication starts.
- (4) to select healthy vectors.

Ans: (1)

[NEET 2013]

Q2381. Maximum application of animal cell culture technology today is in the production of

- (1) interferons
- (2) edible proteins
- (3) vaccines
- (4) insulin

Ans: (3)

[NEET Kar. 2013]

Q2382. What is true for monoclonal antibodies?

- (1) These antibodies obtained from one parent and for many antigen
- (2) These antibodies obtained from one parent and for one antigen

- (3) These antibodies obtained from many parents and for many antigens
- (4) These antibodies obtained from parent and for two antigen

Ans: (2)

Q2383. Genetically engineered bacteria have been successfully used in the commercial production of

- (1) thyroxine
- (2) human insulin
- (3) melatonin
- (4) testosterone

Ans: (2)

Q2384. CHAPTER 34 Biotechnology and Its Applications [1996] [2001]

Q2385. Genes of interest can be selected from a genomic library by using

- (1) DNA probes
- (2) Restriction enzymes
- (3) Gene targets
- (4) Cloning vectors

Ans: (3)

[2003]

Q2386. A transgenic food crop which may help in solving the problem of night blindness in developing countries is

- (1) Bt Soybean
- (2) Flavr Savr tomatoes
- (3) Golden rice
- (4) Starlink maize

Ans: (3)

[2003]

Q2387. *Bacillus thuringiensis* (Bt) strains have been used for designing novel:

- (1) Bio-mineralization processes
- (2) Biofertilizers
- (3) Bioinsecticidal plants

(4) Bio-metallurgical techniques

Ans: (3)

[2005, 06]

Q2388. The name of Norman Borlaug is associated with:

(1) yellow revolution

(2) white revolution

(3) blue revolution

(4) green revolution

Ans: (4)

[2005]

Q2389. Golden rice is a transgenic crop of the future with the following improved trait:

(1) high protein content

(2) insect resistance

(3) high vitamin-A content

(4) high lysine (essential amino acid) content

Ans: (3)

[2005]

Q2390. ELISA is used to detect viruses where the key reagent is

(1) catalase

(2) RNase

(3) DNA probe

(4) alkaline phosphatase

Ans: (4)

[2008]

Q2391. The genetically-modified (GM) brinjal in India has been developed for:

(1) enhancing mineral content

(2) insect-resistance

(3) drought-resistance

(4) enhancing shelf life

Ans: (2)

[2008]

Q2392. Transgenic plants are the ones:

(1) grown in artificial medium after hybridization in the field.

(2) generated by introducing foreign DNA into a cell and regenerating a plant from that cell.

(3) produced by a somatic embryo in artificial medium.

(4) produced after protoplast fusion in artificial medium.

Ans: (2)

[2009]

Q2393. What is true about Bt toxin?

(1) The concerned Bacillus has antitoxins.

(2) Bt protein exists as active toxin in the Bacillus

(3) The inactive protoxin gets converted into active form in the insect gut.

(4) The activated toxin enters the ovaries of the pest to sterilise it and thus prevent its multiplication.

Ans: (3)

[2009]

Q2394. Which one of the following is commonly used in transfer of foreign DNA into crop plants?

(1) *Penicillium expansum*

(2) *Meloidogyne incognita*

(3) *Trichoderma harzianum*

(4) *Agrobacterium tumefaciens*

Ans: (4)

[2009]

Q2395. Main objective of production/use of herbicide resistant GM crops is to

(1) encourage eco-friendly herbicides

(2) eliminate weeds from the field without the use of manual labour

(3) reduce herbicide accumulation in food articles for health safety

(4) eliminate weeds from the field without the use of herbicides

Ans: (3)

[2010]

Q2396. Continuous addition of sugars in 'fed batch' fermentation is done to:

(1) purify enzymes

(2) produce methane

(3) degrade sewage

(4) obtain antibiotics

Ans: (1)

[2010]

Q2397. Maximum number of existing transgenic animals is of:

- (1) cow
- (2) fish
- (3) pig
- (4) mice

Ans: (4)

[2010]

Q2398. The most common substrate used in distilleries for the production of ethanol is

- (1) ground gram
- (2) corn meal
- (3) molasses
- (4) soya meal

Ans: (3)

[2011]

Q2399. Some of the characteristics of Bt cotton are:

- (1) high yield and production of toxic protein crystals which kill dipteran pests
- (2) long fibre and resistance to aphids
- (3) high yield and resistance to bollworms
- (4) medium yield, long fibre and resistance to beetle pests

Ans: (3)

[2011]

Q2400. Genetic engineering has been successfully used for producing:

- (1) transgenic cow – rosie which produces high fat milk for making ghee
- (2) transgenic mice for testing safety of polio vaccine before use in humans
- (3) animals like bulls for farm work as they have super power
- (4) transgenic models for studying new treatments for certain cardiac diseases

Ans: (2)

[2011]

Q2401. Read the following four statements (A-D) about certain

mistakes in two of them (A) The first transgenic buffalo, Rosie produced milk which was human alphasalactal albumin enriched. (B) Restriction enzymes are used in isolation of DNA from other macro-molecules. (C) Downstream processing is one of the steps of R-DNA technology. (D) Disarmed pathogen vectors are also used in transfer of R-DNA into the host. Which are the two statements having mistakes?

- (1) Statement (A) and (C)
- (2) Statement (B) and (C)
- (3) Statement (A) and (B)
- (4) Statement (C) and (D)

Ans: (3)

[2011M]

Q2402. Which one of the following techniques made it possible to genetically engineer living organism?

- (1) Heavier isotope labelling
- (2) Recombinant DNA techniques
- (3) Hybridization
- (4) X-ray diffraction

Ans: (2)

[2011M]

Q2403. In history of biology, human genome project led to the development of:

- (1) bioinformatics
- (2) biotechnology
- (3) biosystematics
- (4) biomonitoring

Ans: (1)

[2011M]

Q2404. Consider the following statements (A-D) about organic farming: (A) Utilizes genetically modified crops like Bt cotton (B) Uses only naturally produced inputs like compost (C) Does not use pesticides and urea (D) Produces vegetables rich in vitamins and minerals Which of the above statements are correct?

- (1) (B) and (C) only
- (2) (B), (C) and (D)
- (3) (A) and (B) only
- (4) (C) and (D) only

Ans: (1)

[2011M]

Q2405. Silencing of mRNA has been used in producing transgenic plants resistant to:

- (1) white rusts
- (2) bollworms
- (3) bacterial blights
- (4) nematodes

Ans: (4)

[2011M]

Q2406. Which one of the following vectors is used to replace the defective gene in gene therapy?

- (1) Cosmid
- (2) Ti plasmid
- (3) Ri plasmid
- (4) Adenovirus

Ans: (4)

[2012]

Q2407. Which of the following Bt crops is being grown in India by the farmers?

- (1) Soyabean
- (2) Cotton
- (3) Maize
- (4) Brinjal

Ans: (2)

[2012M]

Q2408. The first clinical gene therapy was given for treating

- (1) rheumatoid arthritis
- (2) chicken pox
- (3) adenosine deaminase deficiency
- (4) diabetes mellitus

Ans: (3)

[2012M]

Q2409. Tobacco plants resistant to a nematode have been developed by the introduction of DNA that produced (in the host cells)

- (1) an antifeedant
- (2) both sense and anti-sense RNA
- (3) a toxic protein
- (4) a particular hormone

Ans: (2)

[NEET 2013]

Q2410. Consumption of which one of the following foods can prevent the kind of blindness associated with vitamin 'A' deficiency?

- (1) Golden rice
- (2) 'Flaver Savr' tomato
- (3) Bt-Brinjal
- (4) Canolla

Ans: (1)

[NEET Kar. 2013]

Q2411. A mutually beneficial association necessary for survival of both partners is

- (1) amensalism
- (2) mutualism/symbiosis
- (3) both A and B
- (4) commensalism

Ans: (2)

[NEET Kar. 2013]

Q2412. Competition for light, nutrients and space is most severe between

- (1) distantly related organisms growing in the same habitat
- (2) closely related organism growing in different niches
- (3) distantly related organisms growing in different niches
- (4) closely related organisms growing in the same area/niche

Ans: (4)

[NEET Kar. 2013]

Q2413. CHAPTER 35 Organisms and Environment

Q2414. RNA interference involves

- (1) Silencing of specific mRNA due to complementary RNA
- (2) Synthesis of mRNA from DNA
- (3) Interference of RNA in synthesis of DNA
- (4) Synthesis of cDNA from RNA using reverse transcriptase

Ans: (1)

[1988]

Q2415. During the process of isolation of DNA, chilled ethanol is added to

- (1) Break open the cell to release DNA
- (2) Remove proteins such as histones
- (3) Facilitate action of restriction enzymes
- (4) Precipitate DNA

Ans: (4)

[1988]

Q2416. Soil particles determine its

- (1) water holding capacity
- (2) texture
- (3) soil flora
- (4) field capacity

Ans: (2)

[1991]

Q2417. A fertile agricultural soil appears deep coloured at the surface as compared to soil one metre down. The reason for colour of top soil is

- (1) rich in iron, calcium and magnesium
- (2) more moisture
- (3) recent formation
- (4) rich in organic matter

Ans: (4)

[1991]

Q2418. Which one is true?

- (1) Symbiosis when neither populations affects each other

- (2) Commensalism when none of the interacting populations affect each other
- (3) Commensalism when the interaction is useful to both the populations
- (4) Symbiosis when the interaction is useful to both the populations

Ans: (4)

[1991]

Q2419. Deep black soil is productive due to high proportion of

- (1) clay and humus
- (2) sand and zinc
- (3) silt and earthworm
- (4) gravel and calcium

Ans: (1)

[1992]

Q2420. Homeostasis is

- (1) disturbance of self regulatory system and natural controls
- (2) tendency of biological systems to change with change in environment
- (3) biotic materials used in homeopathic medicines.
- (4) tendency of biological systems to resist change

Ans: (4)

[1992]

Q2421. Animals that can tolerate a narrow range of salinity are

- (1) anadromous
- (2) stenohaline
- (3) catadromous
- (4) euryhaline

Ans: (2)

[1993]

Q2422. Xeric environment is characterised by

- (1) extremes of temperature
- (2) precipitation
- (3) high rate of vapourisation
- (4) low atmospheric humidity

Ans: (4)

[1993]

Q2423. Association of animals when both partners are benefitted

- (1) commensalism

- (2) colony
- (3) amensalism
- (4) mutualism

Ans: (4)

[1993]

Q2424. Soil best suited for plant growth is

- (1) sandy
- (2) clay
- (3) gravel
- (4) loam

Ans: (4)

[1994]

Q2425. The sum total of the populations of the same kind of organisms constitute

- (1) community
- (2) colony
- (3) species
- (4) genus

Ans: (3)

[1994]

Q2426. The concept that population tends to increase geometrically while food supply increases arithmetically was put forward by

- (1) Charles Darwin
- (2) Stuart Mill
- (3) Thomas Malthus
- (4) Adam Smith

Ans: (3)

[1994]

Q2427. Which of the following pairs is correctly matched?

- (1) excessive perspiration - xeric adaptation
- (2) uricotelism - aquatic habitat
- (3) stream lined body - aquatic adaptation
- (4) parasitism - intra-specific relationship

Ans: (3)

[1994]

Q2428. Sunken stomata is the characteristic feature of

- (1) xerophyte
- (2) hydrophyte
- (3) halophyte
- (4) mesophyte

Ans: (1)

[1995]

Q2429. Tropical forests occur in India

- (1) Kerala and Assam
- (2) Jammu and Kashmir
- (3) The forests do not occur in India
- (4) Rajasthan

Ans: (1)

[1995]

Q2430. In a food chain, the largest population is that of

- (1) secondary consumers
- (2) producers
- (3) primary consumers
- (4) decomposers

Ans: (2)

[1995]

Q2431. Keystone species in an ecosystem are those

- (1) attaining a large biomass
- (2) present in maximum number
- (3) contributing to ecosystem properties
- (4) that are most frequent

Ans: (3)

[1995]

Q2432. In increasing order of organizational complexity, which one of the following is the correct sequence?

- (1) Population, ecosystem, species, community
- (2) Population, species, community, ecosystem
- (3) Species, variety, ecosystem, community
- (4) Population, variety, species, ecosystem

Ans: (2)

[1996]

Q2433. The nature of climax community ultimately depends on

- (1) soil organisms
- (2) climate
- (3) pool of available nutrients.
- (4) bed rock

Ans: (2)

[1996]

Q2434. Human population growth in India

- (1) can be reduced by permitting natural calamities and enforcing birth control measures
- (2) tends to follow a sigmoid curve as in case of many other animal species
- (3) can be regulated by following the national programme of family planning
- (4) tends to reach a zero population growth as in case of some animal species

Ans: (3)

[1997]

Q2435. In India, human population is heavily weighed towards the younger age groups as a result of

- (1) short life span of many individuals and high birth rate
- (2) short life span of many individuals and low birth rate
- (3) long life span of many individuals and high birth rate
- (4) long life span of many individuals and low birth rate

Ans: (1)

[1997]

Q2436. Two opposite forces operate in the growth and development of every population. One of them relates to the ability to reproduce at a given rate. The force opposing to it is called

- (1) biotic control
- (2) mortality
- (3) environmental resistance.
- (4) fecundity

Ans: (3)

[1997]

Q2437. An interesting modification of flower shape for insect pollination occurs in some orchids in which a male insect mistakes

the pattern on the orchid flower for the female of his species and tries to copulate with it, thereby pollinating the flower. This phenomenon is called

- (1) pseudocopulation
- (2) mimicry
- (3) pseudoparthenocarpy
- (4) pseudopollination

Ans: (2)

[1997]

Q2438. Plants such as Prosopis, Acacia and Capparis represent examples of tropical

- (1) evergreen forests
- (2) thorn forests
- (3) grasslands
- (4) deciduous forests

Ans: (2)

[1998]

Q2439. The present population of the world is about

- (1) 6 billion
- (2) 500 million
- (3) 15 billion
- (4) 100 billion

Ans: (1)

[1998]

Q2440. What is the most important factor for the success of animal population?

- (1) Adaptability
- (2) Natalty
- (3) Inter-species activity
- (4) Unlimited food

Ans: (1)

[1998]

Q2441. The semilog of per minute growing bacteria is plotted against time. What will be the shape of graph?

- (1) Ascending straight line

- (2) Sigmoid
- (3) Descending straight line
- (4) Hyperbolic

Ans: (1)

[1998]

Q2442. Choose the correct sequence of stages of growth curve for bacteria

- (1) Stationary, lag, log, decline phase
- (2) Lag, log, stationary, decline phase
- (3) Decline, lag, log phase
- (4) Lag, log, stationary phase

Ans: (2)

[1999]

Q2443. In a population unrestricted reproductive capacity is called as

- (1) carrying capacity
- (2) biotic potential
- (3) birth rate
- (4) fertility

Ans: (2)

[2002]

Q2444. Which part of the world has a high density of organisms?

- (1) Deciduous forests
- (2) Grasslands
- (3) Tropical rain forests
- (4) Savannahs

Ans: (3)

[2002]

Q2445. Which of the following communities is more vulnerable to invasion by outside animals and plants?

- (1) Mangroves
- (2) Tropical evergreen forests
- (3) Temperate forests.
- (4) Oceanic island communities

Ans: (4)

[2002]

Q2446. The maximum growth rate occurs in

- (1) lag phase
- (2) stationary phase
- (3) exponential phase
- (4) senescent phase

Ans: (3)

[2003]

Q2447. In which one of the following habitats does the diurnal temperature of soil surface vary most?

- (1) Desert
- (2) Shrub land
- (3) Grassland
- (4) Forest

Ans: (1)

[2003]

Q2448. What is a keystone species?

- (1) A rare species that has minimal impact on the biomass and on other species in the community
- (2) A species which makes up only a small proportion of the total biomass of a community, yet has a huge impact on the community's organization and survival
- (3) A dominant species that constitutes a large proportion of the biomass and which affects many other species.
- (4) A common species that has plenty of biomass, yet has a fairly low impact on the community's organization

Ans: (2)

[2004]

Q2449. Diffuse porous woods are characteristic of plants growing in

- (1) cold winter regions
- (2) tropics
- (3) temperate climate
- (4) alpine region

Ans: (2)

[2004]

Q2450. Two opposite forces operate in the growth and development of every population. One of them relates to the ability to reproduce at a given rate. The force opposing it is called

- (1) fecundity
- (2) environmental resistance
- (3) biotic potential
- (4) morbidity

Ans: (2)

[2004]

Q2451. Praying mantis is a good example of

- (1) camouflage
- (2) warning colouration
- (3) mullerian mimicry
- (4) social insects

Ans: (1)

[2004]

Q2452. The formula for exponential population growth is

- (1) $dN/dt = rN$
- (2) $dN/rN = dt$
- (3) $dt/dN = rN$
- (4) $rN/dN = dt$

Ans: (1)

[2005]

Q2453. Niche overlap indicates

- (1) mutualism between two species
- (2) two different parasites on the same host
- (3) active cooperation between two species
- (4) sharing of one or more resources between the two species

Ans: (4)

[2006]

Q2454. Which one of the following pairs is mismatched?

- (1) Prairie - epiphytes
- (2) Tundra - permafrost
- (3) Coniferous forest - evergreen trees

(4) Savanna - acacia trees

Ans: (1)

[2006]

Q2455. Certain characteristic demographic features of developing countries are

(1) high infant mortality, low fertility, uneven population growth and a very young age distribution

(2) high fertility, low or rapidly falling mortality rate, rapid population growth and a very young age distribution

(3) high mortality, high density, uneven population growth and a very old age distribution

(4) high fertility, high density, rapidly rising mortality rate and a very young age distribution

Ans: (2)

[2006]

Q2456. What is true about the isolated small tribal populations?

(1) Wrestlers who develop strong body muscles in their life time pass this character on to their progeny

(2) There is a decline in population as boys marry girls only from their own tribe

(3) There is no change in population size as they have a large gene pool

(4) Hereditary diseases like colour blindness do not spread in the isolated population

Ans: (2)

[2007]

Q2457. A high density of elephant population in an area can result in

(1) predation on one another

(2) intra specific competition

(3) mutualism.

(4) inter specific competition

Ans: (2)

[2007]

Q2458. Two plants can be conclusively said to belong to the same species if they

- (1) have same number of chromosomes
- (2) have more than 90 per cent similar genes
- (3) can reproduce freely with each other and form seeds.
- (4) look similar and possess identical secondary metabolites

Ans: (3)

[2007]

Q2459. The population of an insect species shows an explosive increase in numbers during rainy season followed by its disappearance at the end of the season. What does this show?

- (1) The population of its predators increases enormously
- (2) The food plants mature and die at the end of the rainy season
- (3) S-shaped or sigmoid growth of this insect.
- (4) Its population growth curve is of J-type

Ans: (4)

[2007]

Q2460. Geometric representation of age structure is a characteristic of

- (1) ecosystem
- (2) population
- (3) biotic community.
- (4) landscape

Ans: (2)

[2008]

Q2461.

Ans: (1)

Q2462. Which one of the following is one of the characteristics of a biological community?

- (1) Mortality
- (2) Stratification
- (3) Sex ratio
- (4) Natality

Ans: (2)

[2009]

Q2463.

Ans: (3)

Q2464. In the case of peppered moth (*Biston betularia*) the black - coloured form became dominant over the light- coloured form in England during industrial revolution. This is an example of:

- (1) inheritance of darker colour character acquired due to the darker environment
- (2) appearance of the darker coloured individuals due to very poor sunlight
- (3) natural selection whereby the darker forms were selected
- (4) protective mimicry

Ans: (3)

[2010]

Q2465.

Ans: (3)

Q2466. A sedentary sea anemone gets attached to the shell lining of hermit crab. The association is:

- (1) Amensalism
- (2) Symbiosis
- (3) Ectoparasitism
- (4) Commensalism

Ans: (4)

[2011]

Q2467. *Cuscuta* is an example of

- (1) predation
- (2) ectoparasitism
- (3) endoparasitism
- (4) brood parasitism

Ans: (2)

[2011]

Q2468. Which one of the following statements is correct for secondary succession?

- (1) It follows primary succession
- (2) It begins on a bare rock
- (3) It is similar to primary succession except that it has a relatively fast pace
- (4) It occurs on a deforested site

Ans: (4)

[2011]

Q2469. Consider the following four conditions (i) - (iv) and select the correct pair of them as adaptation to environment in desert lizards. The conditions: (i) Burrowing in soil to escape high temperature (ii) Losing heat rapidly from the body during high temperature (iii) Bask in sun when temperature is low (iv) Insulating body due to thick fatty dermis Options:

(1) (iii), (ii), (iv)

(2) (iii), (iv)

(3) (i), (ii)

(4) (i)

Ans: (4)

[2012M]

Q2470. Large woody vines are more commonly found in:

(1) tropical rainforests

(2) temperate forest

(3) alpine forests

(4) mangroves

Ans: (1)

[NEET 2013]

Q2471. Pyramid of numbers in a grassland/true ecosystem is

(1) both A and B

(2) always inverted

(3) spindle-shaped

(4) always upright

Ans: (4)

[NEET 2013]

Q2472. Which one of the following is not a parasitic adaptation?

(1) Loss of digestive organs

(2) Loss of unnecessary sense organs

(3) Loss of reproductive capacity

(4) Development of adhesive organs

Ans: (3)

[NEET Kar. 2013]

Q2473. The age pyramid with broad base indicates

- (1) Low percentage of young individuals
- (2) High percentage of young individuals
- (3) A stable population
- (4) High percentage of old individuals

Ans: (2)

[NEET Kar. 2013]

Q2474. Benthic organisms are affected most by

- (1) Surface turbulence of water
- (2) Water-holding capacity of soil
- (3) Sediment characteristics of aquatic ecosystems
- (4) Light reaching the forest floor

Ans: (3)

[NEET Kar. 2013]

Q2475. A biologist studied the population of rats in a barn. He found that the average natality was 250, average mortality 240, immigration 20 and emigration 30. The net increase in population is:

- (1) zero
- (2) 15
- (3) 10
- (4) 05

Ans: (1)

[1990, 91]

Q2476. Study of inter-relationships between organisms and their environment is

- (1) phytogeography
- (2) ecology
- (3) ethology
- (4) ecosystem

Ans: (2)

[1991]

Q2477. River water deposits

- (1) laterite soil
- (2) loamy soil

- (3) sandy soil
 - (4) alluvial soil
- Ans: (4)

[1991]

Q2478. Pedology is science of

- (1) diseases
 - (2) earth
 - (3) pollution
 - (4) soil
- Ans: (4)

Q2479. Pick up the correct food chain

- (1) Phytoplankton Zooplankton Fish
 - (2) Grass Chamelion Insect Bird
 - (3) Fallen leaves Bacteria Insect larvae
 - (4) Grass Fox Rabbit Bird
- Ans: (1)

[1991]

Q2480. Food chain in which micro-organisms breakdown the food formed by primary producers is

- (1) consumer food chain
 - (2) parasitic food chain
 - (3) predator food chain
 - (4) detritus food chain
- Ans: (4)

[1992]

Q2481. In a biotic community, the most important factor for survival of an animal is

- (1) green food
 - (2) day length
 - (3) predators
 - (4) soil moisture
- Ans: (1)

[1993]

Q2482. In grass-deer-tiger food chain, grass biomass is one tonne.

[1993]

The tiger biomass shall be

- (1) 200 kg
- (2) 100 kg
- (3) 1 kg
- (4) 10 kg

Ans: (4)

[1993]

Q2483. The pyramid which cannot be inverted in a stable ecosystem is that of

- (1) Energy
- (2) Biomass
- (3) All the above
- (4) Number

Ans: (1)

[1994]

Q2484. Pyramid of numbers in a pond ecosystem is

- (1) upright
- (2) irregular
- (3) spindle shaped
- (4) inverted

Ans: (1)

[1994]

Q2485. Pyramid of numbers deals with number of

- (1) individuals in a trophic-level
- (2) species in an area
- (3) subspecies in a community
- (4) individuals in a community

Ans: (1)

[1994]

Q2486. If we completely remove the decomposers from an ecosystem, its functioning will be adversely affected, because

- (1) mineral movement will be blocked
- (2) energy flow will be blocked
- (3) rate of decomposition will be very high
- (4) herbivores will not receive solar energy

Ans: (1)

[1994]

Q2487. Which of the following does not have stomata?

- (1) xerophytes
- (2) hydrophytes
- (3) submerged hydrophytes
- (4) mesophytes

Ans: (3)

[1994]

Q2488. Desert plants are generally

- (1) herbaceous
- (2) viviparous
- (3) heterophyllus
- (4) succulent

Ans: (4)

[1995]

Q2489. Bulk CO_2 fixation occurs in

- (1) Tropical rain forests
- (2) Crop plants
- (3) Temperature forests
- (4) Oceans

Ans: (4)

[1995]

Q2490. Second most important trophic level in a lake is

- (1) Benthos
- (2) Zooplankton
- (3) Neuston
- (4) Phytoplankton

Ans: (2)

[1995]

Q2491. Flamingoes breed in

- (1) sambhar lake
- (2) rann of Kutch
- (3) mansarover Lake
- (4) chilka lake

Ans: (4)

[1995]

Q2492. Which of the following pairs is a sedimentary type of biogeochemical cycle?

- (1) phosphorus and nitrogen
- (2) oxygen and nitrogen
- (3) phosphorus and carbon dioxide
- (4) phosphorus and sulphur

Ans: (4)

[1995]

Q2493. In a biotic community, the primary consumers are

- (1) detritivores
- (2) carnivores
- (3) herbivores
- (4) omnivores

Ans: (3)

[1995]

Q2494. Which of the following is the most stable ecosystem?

- (1) Mountain
- (2) Forest
- (3) Ocean
- (4) Desert

Ans: (3)

[1995]

Q2495. The primary succession refers to the development of communities on a

- (1) pond, freshly filled with water after a dry phase
- (2) freshly cleared crop field
- (3) newly-exposed habitat with no record of earlier vegetation
- (4) forest clearing after devastating fire

Ans: (3)

[1996]

Q2496. During adverse season, therophytes survive by

- (1) rhizomes
- (2) bulbs

- (3) seeds
 - (4) corms
- Ans: (3)

[1996]

Q2497. Which of the following ecosystems has highest rate of gross primary production?

- (1) Coral reefs
 - (2) Grasslands
 - (3) Equatorial rain forest
 - (4) Mangroves
- Ans: (3)

[1996, 99]

Q2498. Niche of a species in an ecosystem refers to its

- (1) competitive ability
 - (2) function at its place of occurrence
 - (3) centre of origin
 - (4) place of its occurrence
- Ans: (2)

[1996]

Q2499. The transfer of energy from one trophic level to another is governed by the 2nd law of thermodynamics. The average efficiency of energy transfer from herbivores to carnivores is

- (1) 25%
 - (2) 5%
 - (3) 50%
 - (4) 10%
- Ans: (4)

[1997]

Q2500. In a food chain, the largest population is that of

- (1) primary consumers
 - (2) decomposers
 - (3) tertiary consumers
 - (4) producers
- Ans: (4)

[1997]

Q2501. In an ecosystem, which one shows one-way passage

- (1) nitrogen
- (2) free energy
- (3) potassium
- (4) carbon

Ans: (2)

[1998]

Q2502. What is true of ecosystem?

- (1) Producers are more than primary consumers
- (2) Primary consumers are least dependent upon producers
- (3) Secondary consumers are the largest and most powerful
- (4) Primary consumers out-number producers

Ans: (1)

[1998]

Q2503. Upper part of sea/aquatic ecosystem contains

- (1) plankton and nekton
- (2) plankton
- (3) benthos
- (4) nekton

Ans: (2)

[1988]

Q2504. Warm ocean surge of the Peru Current reoccurring every 5-8 years or so in the East Pacific of South America is widely known as

- (1) Aye Aye
- (2) Gulf Stream
- (3) Magnox
- (4) El Nino

Ans: (4)

[1988]

Q2505. The rate at which light energy is converted to the chemical energy of organic molecules is the ecosystem's

- (1) net secondary productivity
- (2) net primary productivity
- (3) gross secondary productivity

(4) gross primary productivity

Ans: (4)

[1988]

Q2506. Which of the following is expected to have the highest value ($\text{gm/m}_2/\text{yr}$) in a grassland ecosystem?

(1) Gross Production (GP)

(2) Secondary Production

(3) Net Production (NP)

(4) Tertiary Production

Ans: (1)

[1999]

Q2507. Bamboo plant is growing in a fir forest then what will be the trophic level of it?

(1) Third trophic level (T_3)

(2) First trophic level (T_1)

(3) Fourth trophic level (T_4)

(4) Second trophic level (T_2)

Ans: (2)

[2000]

Q2508. The greatest biomass of autotrophs in the oceans is that of

(1) benthic brown algae, coastal red algae and daphnids

(2) sea grasses and slime moulds

(3) benthic diatoms and marine viruses

(4) free floating microalgae, cyanobacteria and nanoplankton

Ans: (4)

[2000]

Q2509. Pneumatophores are characteristic of plants growing in

(1) marshy places and salt lakes

(2) saline soils

(3) dryland regions

(4) sandy soils

Ans: (1)

[2002]

Q2510. Sudden mass killing of fishes is likely in

- (1) salt lake
- (2) mesotrophic lake
- (3) eutrophic lake
- (4) oligotrophic lake

Ans: (3)

[2004]

Q2511. Which one of the following is not used for construction of ecological pyramids?

- (1) Fresh weight
- (2) Number of individuals
- (3) Dry weight
- (4) Rate of energy flow

Ans: (1)

[2004]

Q2512. More than 70% of world's freshwater is contained in:

- (1) antarctica
- (2) polar ice
- (3) greenland
- (4) glaciers and mountains

Ans: (2)

[2004]

Q2513. Barophilic prokaryotes:

- (1) readily grow and divide in sea water enriched in any soluble salt of barium
- (2) grow and multiply in very deep marine sediments
- (3) grow slowly in highly alkaline frozen lakes at high altitudes
- (4) occur in water containing high concentrations of barium hydroxide

Ans: (2)

[2005]

Q2514. An ecosystem which can be easily damaged but can recover after some time if damaging effect stops will be having

- (1) low stability and low resilience
- (2) low stability and high resilience
- (3) high stability and high resilience

(4) high stability and low resilience

Ans: (2)

[2005]

Q2515. If by radiation all nitrogenase enzymes are inactivated, then there will be no

(1) conversion from nitrate to nitrite in legumes

(2) fixation of nitrogen in legumes

(3) conversion from ammonium to nitrate in soil

(4) fixation of atmospheric nitrogen

Ans: (2)

[2006]

Q2516. Consider the following statements concerning food chains

(1) the length of food chains is generally limited to 3-4 trophic levels due to energy loss

(2) removal of 80% tigers from an area resulted in greatly increased growth of vegetation

(3) the length of food chains may vary from 2 to 8 trophic levels Which two of the above statements are correct?

(4) removal of most of the carnivores resulted in an increased population of deers

Ans: (2)

[2007]

Q2517. The slow rate of decomposition of fallen logs in nature is due to their

(1) anaerobic environment around them

(2) low moisture content

(3) low cellulose content

(4) poor nitrogen content

Ans: (3)

[2008]

Q2518. About 70% of total global carbon is found in

(1) oceans

(2) grasslands

(3) forests

(4) agroecosystems

Ans: (1)

[2008]

Q2519. A lake near a village suffered heavy mortality of fishes within a few days. Consider the following reasons for this?

- (1) The lake water turned green and stinky
- (2) Lots of urea and phosphate fertilizer were used in the crops in the vicinity
- (3) Phytoplankton populations in the lake declined initially thereby greatly reducing photosynthesis. Which two of the above were the main causes of fish mortality in the lake?
- (4) The area was sprayed with DDT by an aircraft

Ans: (1)

[2008]

Q2520. Which one of the following ecosystem types has the highest annual net primary productivity?

- (1) temperate deciduous forest
- (2) tropical deciduous forest
- (3) tropical rain forest.
- (4) temperate evergreen forest

Ans: (3)

[2008]

Q2521. Mass of living matter at a trophic level in an area at any time is called

- (1) humus
- (2) standing crop
- (3) standing state
- (4) detritus

Ans: (2)

[2009]

Q2522. The biomass available for consumption by the herbivores and the decomposers is called:

- (1) standing crop
- (2) net primary productivity
- (3) gross primary productivity
- (4) secondary productivity

Ans: (2)

[2009]

Q2523. Study the four statements (a–d) given below and select the two correct ones out of them: (i) A lion eating a deer and a sparrow feeding on grain are ecologically similar in being consumers (ii) Predator star fish *Pisaster* helps in maintaining species diversity of some invertebrates (iii) Predators ultimately lead to the extinction of prey species (iv) Production of chemicals such as nicotine, strychnine by the plants are metabolic disorders

The two correct statements are:

- (1) (i) and (iv)
- (2) (ii) and (iii)
- (3) (i) and (ii)
- (4) (iii) and (iv)

Ans: (3)

[2010]

Q2524. Which one of the following types of organisms occupy more than one trophic level in a pond ecosystem?

- (1) Frog
- (2) Fish
- (3) Phytoplankton
- (4) Zooplankton

Ans: (2)

[2010]

Q2525. The correct sequence of plants in a hydrosere is:

- (1) Oak → Lantana → Volvox → Hydrilla → Pistia → Scirpus
- (2) Volvox → Hydrilla → Pistia → Scirpus Lantana → Oak
- (3) Oak → Lantana → Scirpus → Pistia → Hydrilla → Volvox
- (4) Pistia → Volvox → Scirpus → Hydrilla → Oak → Lantana

Ans: (2)

[2011]

Q2526. Which one of the following is not a gaseous biogeochemical cycle in ecosystem?

- (1) Nitrogen cycle

- (2) Sulphur cycle
- (3) Carbon cycle
- (4) Phosphorus cycle

Ans: (4)

[2011]

Q2527. Pheretima and its close relatives derive nourishment from:

- (1) soil insects
- (2) sugarcane roots
- (3) small pieces of fresh fallen leaves of maize, etc.
- (4) decaying fallen leaves and soil organic matter.

Ans: (4)

[2011M]

Q2528. Both, hydrarch and xerarch successions lead to:

- (1) highly dry conditions
- (2) medium water conditions
- (3) excessive wet conditions
- (4) xeric conditions

Ans: (2)

[2011M]

Q2529. Which one of the following animals may occupy more than one trophic levels in the same ecosystem at the same time?

- (1) Goat
- (2) Sparrow
- (3) Frog
- (4) Lion

Ans: (2)

[2012]

Q2530. Which one of the following statements for pyramid of energy is incorrect, whereas the remaining three are correct?

- (1) It is inverted in shape
- (2) Its base is broad
- (3) It is upright in shape
- (4) It shows energy content of different trophic level organisms

Ans: (1)

[2012]

Q2531. The rate of formation of new organic matter by rabbit in a grassland, is called

- (1) net primary productivity
- (2) net productivity
- (3) gross primary productivity
- (4) secondary productivity

Ans: (4)

[2012]

Q2532. The upright pyramid of number is absent in

- (1) Lake
- (2) Pond
- (3) Grassland
- (4) Forest

Ans: (4)

Q2533. Which one of the following is not a function of an ecosystem

- (1) Productivity
- (2) Energy flow
- (3) Stratification
- (4) Decomposition

Ans: (3)

[2012]

Q2534.

Ans: (2)

[2012]

Q2535. Identify the possible link “A” in the following food chain:
Plant insect - frog “A” Eagle

- (1) Cobra
- (2) Rabbit
- (3) Parrot
- (4) WoIf

Ans: (1)

[2012M]

Q2536. Secondary productivity is rate of formation of new organic matter by

- (1) Decomposer
- (2) Parasite
- (3) Producer
- (4) Consumer

Ans: (4)

[2012M]

Q2537. Which one of the following processes during decomposition is correctly described?

- (1) Leaching-Water soluble inorganic nutrients rise to the top layers of soil
- (2) Humification-Leads to the accumulation of a dark coloured substance humus which undergoes microbial action at every fast rate
- (3) Fragmentation-Carried out by organisms such as earthworm
- (4) Catabolism-Last step decomposition under fully anaerobic condition

Ans: (3)

Q2538. Natural reservoir of phosphorus is:

- (1) Fossils
- (2) Animal bones
- (3) Sea water
- (4) Rock

Ans: (4)

[NEET 2013]

Q2539.

Ans: (2)

[NEET 2013]

Q2540. The second stage of hydrosere is occupied by plants like

- (1) Salix
- (2) Azolla
- (3) Vallisneria
- (4) Typha

Ans: (3)

[NEET 2013]

Q2541. Deforestation will decrease

- (1) soil fertility
- (2) soil erosion
- (3) rainfall
- (4) land slides

Ans: (3)

[NEET Kar. 2013]

Q2542. Soil conservation is

- (1) erosion of soil
- (2) conversion of sterile soil into fertile one
- (3) protection against loss
- (4) aeration of soil

Ans: (3)

[NEET Kar. 2013]

Q2543. CHAPTER 37 Biodiversity and its Conservation

Q2544. When man eats fish which feeds on zooplankton which have eaten small plants, the producer in the chain is

- (1) Fish
- (2) Zooplankton
- (3) Man
- (4) Small plants

Ans: (4)

[1989]

Q2545. Which one of the following is a primary consumer in maize field ecosystem?

- (1) Wolf
- (2) Lion
- (3) Phytoplankton
- (4) Grasshopper

Ans: (4)

[1990]

Q2546. Minerals and metals are

- (1) non-renewable
- (2) biodegradable resources
- (3) renewable and non-renewable resources
- (4) renewable

Ans: (3)

[1991, 92, 93]

Q2547. Petroleum is a

- (1) non-renewable resource
- (2) synthetic product
- (3) inconvenient resource
- (4) renewable resource

Ans: (1)

[1991]

Q2548. Fertility of soil is measured by its ability to

- (1) hold water
- (2) retain nutrients
- (3) support life
- (4) hold organic materials

Ans: (3)

Q2549. Renewable source of energy is

- (1) Petroleum
- (2) Biomass
- (3) Kerosene
- (4) Coal

Ans: (2)

[1992]

Q2550. A non-renewable resource is

- (1) renewable non-conventional energy source
- (2) non-renewable non-conventional energy source
- (3) renewable conventional energy source
- (4) non-renewable conventional energy source

Ans: (4)

[1992]

Q2551. Deforestation does not lead to

- (1) alteration of local weather conditions
- (2) quick nutrient cycling
- (3) destruction of natural habitat of wild animals
- (4) soil erosion

Ans: (2)

[1992]

Q2552. Wildlife is destroyed most when

- (1) its natural habitat is destroyed
- (2) there is lack of proper care
- (3) natural calamity
- (4) mass scale hunting for foreign trade

Ans: (1)

[1992]

Q2553. American water plant that has become a troublesome water weed in India is

- (1) *Trapa latifolia*
- (2) *Cyperus rotundus*
- (3) *Trapa bispinosa*
- (4) *Eichhornia crassipes*

Ans: (4)

[1993]

Q2554. Water is a resource

- (1) renewable
- (2) nondegradable nonmaintainable
- (3) non-renewable
- (4) degradable maintainable

Ans: (1)

[1994, 98, 2002]

Q2555. Soil fertility is reduced by

- (1) decaying organic matter
- (2) crop rotation
- (3) intensive agriculture
- (4) nitrogen fixing bacteria

Ans: (3)

[1994]

Q2556. National Park associated with Rhinoceros is

- (1) Corbett
- (2) Kaziranga
- (3) Valley of Flowers
- (4) Ranthambore

Ans: (2)

[1994]

Q2557. Ranthambore National Park is situated in

- (1) Gujarat
- (2) Maharashtra
- (3) U.P.
- (4) Rajasthan

Ans: (4)

[1994]

Q2558. Which animal has become extinct from India?

- (1) Wolf
- (2) Snow Leopard
- (3) Cheetah
- (4) Hippopotamus

Ans: (3)

[1994]

Q2559. Bulk fixation of carbon through photosynthesis takes place in

- (1) crop plants
- (2) tropical rain forests
- (3) oceans
- (4) tropical rain forest and crop plants

Ans: (3)

Q2560. Largest amount of fresh water is found in

- (1) polar ice and glaciers
- (2) lakes and streams
- (3) rivers
- (4) underground

Ans: (1)

[1994]

Q2561. If the forest cover is reduced to half, what is most likely to happen on a long term basis?

- (1) Large areas will become deserts
- (2) Tribals living in these areas will starve to death
- (3) Crop breeding programmes will suffer due to a reduced availability of

variety of germplasm

(4) Cattle in these and adjoining areas will die due to lack of fodder

Ans: (1)

[1994]

Q2562. A number of natural reserves have been created to conserve specific wild life species. Identify the correct combination from the following

(1) Rann of Kutch - Wild Ass

(2) Gir forest - Tiger

(3) Manas wild life Sanctuary - Musk deer

(4) Kaziranga - Elephants

Ans: (1)

[1995]

Q2563. Which of the following is the correct matching pair of a sanctuary and its main protected wild animal?

(1) Sunderban- Rhino

(2) Gir-Lion

(3) Kaziranga-Musk deer

(4) Sariska-Tiger

Ans: (2)

[1995]

Q2564. Which of the following is the main factor of desertification?

(1) Over- grazing

(2) Tourism

(3) All of these

(4) Irrigated agriculture

Ans: (1)

[1996]

Q2565. Species diversity increases as one proceeds from

(1) low altitude to high altitude and low latitude to high latitude

(2) high altitude to low altitude and high latitude to low latitude

(3) high altitude to low altitude and low latitude to high latitude.

(4) low altitude to high altitude and high latitude to low latitude

Ans: (2)

[1996]

Q2566. The endangered largest living lemur *Idri idri* is found in

- (1) Mauritius
- (2) Sri Lanka
- (3) India
- (4) Madagascar

Ans: (4)

[1997]

Q2567. A high density of a protected animal in a National Park can result into

- (1) emigration
- (2) mutualism
- (3) predation
- (4) intraspecific competition

Ans: (4)

[1999]

Q2568. Which animal has gone extinct in recent times in India?

- (1) *Antilope cervicapra*
- (2) *Panthera leo*
- (3) *Rhinoceros unicornis*
- (4) *Acinonyx jubatus*

Ans: (2)

[1999]

Q2569. At present, the most significant cause of dwindling biodiversity is probably

- (1) biological magnification of DDT
- (2) the deterioration of ozone layer
- (3) global warming
- (4) the destruction of habitat

Ans: (4)

[1999]

Q2570. MAB stands for

- (1) Mammals and Biosphere Programme
- (2) Man and Biology Programme
- (3) Mammals and Biology Programme

(4) Man and Biosphere Programme

Ans: (4)

[2000]

Q2571. In which one of the following pairs is the specific characteristic of a soil not correctly matched?

- (1) Chernozems - Richest soil in the world
- (2) Laterite - Contains aluminium compound
- (3) Black soil - Rich in calcium carbonate
- (4) Terra rossa - Most suitable for roses

Ans: (3)

[2000]

Q2572. In your opinion, which is the most effective way to conserve the plant diversity of an area?

- (1) By creating botanical garden
- (2) By tissue culture method
- (3) By developing seed bank
- (4) By creating biosphere reserve

Ans: (3)

[2001]

Q2573. Which group of vertebrates comprises the highest number of endangered species?

- (1) Fishes
- (2) Birds
- (3) Reptiles
- (4) Mammals

Ans: (4)

[2003]

Q2574. Reason of diversity in living beings is due to

- (1) gradual change
- (2) mutation
- (3) short term evolutionary change
- (4) long term evolutionary change

Ans: (4)

[2004]

Q2575. An institution where valuable plant material likely to

become irretrievably lost in the wild or in cultivation is preserved in a viable condition is known as

- (1) Gene library
- (2) Genome
- (3) Gene bank
- (4) Herbarium

Ans: (3)

[2004]

Q2576. Biodiversity Act of India was passed by the parliament in the year

- (1) 2000
- (2) 1992
- (3) 2002
- (4) 1996

Ans: (3)

[2004]

Q2577. One of the most important functions of botanical gardens is that

- (1) they allow ex-situ conservation of germ plasm
- (2) they provide a beautiful area for recreation
- (3) they provide the natural habitat for wildlife
- (4) one can observe tropical plants there

Ans: (1)

[2005]

Q2578. At which latitude, heat gain through insolation approximately equals heat loss through terrestrial radiation?

- (1) 42° North and South
- (2) 22° North and South
- (3) 66° North and South
- (4) 40° North and South

Ans: (4)

[2005]

Q2579. According to IUCN Red List, what is the status of Red Panda (*Ailurus fulgens*)?

- (1) Extinct species

- (2) Critically endangered species
- (3) Endangered species
- (4) Vulnerable species

Ans: (3)

[2005]

Q2580. Diversification in plant life appeared

- (1) suddenly on earth
- (2) due to long periods of evolutionary changes
- (3) by seed dispersal
- (4) due to abrupt mutations

Ans: (2)

[2005]

Q2581. One of endangered species of Indian medicinal plants is that of

- (1) Nepenthes
- (2) Ocimum
- (3) Podophyllum
- (4) Garlic

Ans: (3)

[2006]

Q2582. Which of the following pairs of an animal and a plant represents endangered organisms in India?

- (1) Banyan and black buck
- (2) Tamarind and Rhesus monkey
- (3) Bentinckia nicobarica and Red Panda
- (4) Cinchona and leopard

Ans: (3)

[2006]

Q2583. Which of the following is considered a hot-spot of biodiversity in India? [

- (1) Aravalli Hills
- (2) Indo-Gangetic Plain
- (3) Western Ghats
- (4) Eastern Ghats

Ans: (3)

[2006]

Q2584. Which one of the following is not included under in-situ conservation?

- (1) National park
- (2) Botanical garden
- (3) Sanctuary
- (4) Biosphere reserve

Ans: (2)

[2006]

Q2585. Which one of the following is the correct matched pair of an endangered animal and National Park?

- (1) Great Indian -Keoladeo National Park bustard
- (2) Rhinoceros - Kaziranga National Park
- (3) Lion - Corbett National Park
- (4) Wild ass - Dudhwa National Park

Ans: (2)

[2007]

Q2586. Which one of the following has maximum genetic diversity in India?

- (1) Tea
- (2) Mango
- (3) Teak
- (4) Wheat

Ans: (4)

[2007]

Q2587. Quercus species are the dominant component in

- (1) Scrub forests
- (2) Temperate deciduous forests
- (3) Tropical rain forests
- (4) Alpine forests

Ans: (2)

[2008]

Q2588. Which one of the following is not observed in biodiversity hotspots?

- (1) Lesser inter-specific competition

- (2) Endemism
- (3) Species richness
- (4) Accelerated species loss

Ans: (4)

[2008]

Q2589. The table below gives the population (in thousands) of ten species (A-J in four areas (a-d) consisting of the number of habitats given within brackets against each. Study the table and answer the question which follows: Which area out of a to d shows maximum species diversity?

- (1) d
- (2) b
- (3) a
- (4) c

Ans: (1)

[2008]

Q2590. Identify the odd combination of the habitat and the particular animal concerned.

- (1) Rann of kutch - Wild Ass
- (2) Sunderbans - Bengal Tiger
- (3) Dachigam - Snow National park Leopard.
- (4) Periyar - Elephant

Ans: (3)

[2009]

Q2591. Which one of the following shows maximum genetic diversity in India?

- (1) Maize
- (2) Groundnut
- (3) Mango
- (4) Rice

Ans: (4)

[2009]

Q2592. A collection of plants and seeds having diverse alleles of all the genes of a crop is called

- (1) gene library
- (2) herbarium
- (3) genome
- (4) germplasm

Ans: (1)

[2010]

Q2593. Eutrophication is often seen in

- (1) ocean
- (2) deserts
- (3) mountains
- (4) fresh water lakes

Ans: (4)

[2011]

Q2594. Which one of the following is an example of Exsitu conservation?

- (1) Sacred groves
- (2) Wildlife sanctuary
- (3) National park
- (4) Seed bank

Ans: (4)

[2011]

Q2595. Tiger is not a resident in which one of the following national park?

- (1) Jim Corbett
- (2) Sunderbans
- (3) Ranthambhor
- (4) Gir

Ans: (4)

[2011]

Q2596. Sacred groves are specially useful in

- (1) generating environmental awareness.
- (2) preventing soil erosion.
- (3) conserving rare and threatened species.
- (4) year-round flow of water in rivers.

Ans: (3)

[2011M]

Q2597. The highest number of species in the world is represented by

- (1) Algae
- (2) Fungi
- (3) Lichens
- (4) Mosses

Ans: (2)

[2011M]

Q2598. Which one of the following areas in India, is a hotspot of biodiversity

- (1) Sunderbans
- (2) Eastern Ghats
- (3) Western Ghats
- (4) Gangetic Plain

Ans: (3)

[2012]

Q2599. Biodiversity of a geographical region represents

- (1) genetic diversity present in the dominant species of the region.
- (2) endangered species found in the region.
- (3) species endemic to the region.
- (4) the diversity in the organisms living in the region.

Ans: (4)

[2012]

Q2600. Consider the following statements (A)-(D) each with one or two blanks. (A) Bears go into __ (1) __ during winter to __ (2) __ cold weather (B) A conical age pyramid with a broad base represents __ (3) __ human population (C) A wasp pollinating a fig flower is an example of __ (4) __ (D) An area with high levels of species richness is known as __ (5) __ Which one of the following options give the correct fill ups for the respective blank numbers from (1) to (5) in the statements

- (1) (1) - expanding, (4) - commensalism, (5) biodiversity park
- (2) (2) - stable (4) commensalism, (5) marsh

(3) (1)- hibernation, (2) - escape, (3) - expanding, (5) hot spot

(4) (1) - aestivation, (5) - escape, (3) - stable, (4) - mutualism

Ans: (3)

[2012M]

Q2601. Acid rains are produced by

(1) excess release of carbon monoxide by incomplete combustion

(2) excess emissions of NO_2 and SO_2 from burning fossil fuels

(3) excess formation of CO_2 by combustion and animal respiration

(4) excess production of NH_3 by industry and coal gas

Ans: (2)

[2012M]

Q2602. The largest tiger reserve in India is

(1) Nagarjunsagar-Srisaillam

(2) Nagarhole

(3) Periyar

(4) Valmiki

Ans: (1)

[NEET 2013]

Q2603. Which organization publishes the Red Data Book?

(1) UNEP

(2) GEF

(3) WWF

(4) IUCN

Ans: (4)

[NEET Kar. 2013]

Q2604. Which of the following represent maximum number of species among global biodiversity?

(1) Mosses and Ferns

(2) Lichens

(3) Algae

(4) Fungi

Ans: (4)

[NEET Kar. 2013]

Q2605. Select the correct statement about biodiversity.

(1) Conservation of biodiversity is just a fad pursued by the developed

countries.

(2) Large scale planting of Bt cotton has no adverse effect on biodiversity.

(3) The desert areas of Rajasthan and Gujarat have a very high level of desert animal species as well as numerous rare animals.

(4) Western Ghats have a very high degree of species richness and endemism.

Ans: (4)

[1988, 89, 91]

Q2606. Domestic waste constitutes

(1) Effluents

(2) Nonbiodegradable pollution

(3) Air pollution

(4) Biodegradable pollution

Ans: (4)

[1988, 92]

Q2607. Gas released during Bhopal tragedy was

(1) Sodium isothiocyanate

(2) Methyl isocyanate

(3) Ethyl isothiocyanate

(4) Potassium isothiocyanate

Ans: (2)

[1989, 91]

Q2608. Major aerosol pollutant in jet plane emission is

(1) Methane

(2) Sulphur dioxide

(3) Fluorocarbon

(4) Carbon monoxide

Ans: (3)

[1990]

Q2609. Green house effect is warming due to

(1) Increase in temperature due to increase in carbon dioxide concentration of atmosphere

(2) Infra-red rays reaching earth

(3) Ozone layer of atmosphere

(4) Moisture layer in atmosphere

Ans: (1)

[1990, 99]

Q2610. Which one is not a pollutant normally?

- (1) Carbon monoxide
- (2) Hydrocarbons
- (3) Sulphur dioxide
- (4) Carbon dioxide

Ans: (4)

[1991]

Q2611. Which gas contributes most to green house effect?

- (1) CO_2
- (2) CFC
- (3) CH_4
- (4) Freon

Ans: (1)

[1992]

Q2612. Highest DDT deposition shall occur in

- (1) Crab
- (2) Phytoplankton
- (3) Eel
- (4) Sea Gull/Birds

Ans: (4)

[1993]

Q2613. Atmosphere of big/metropolitan cities is polluted most by

- (1) household waste
- (2) automobile exhausts
- (3) radio-active fall-out
- (4) pesticide residue

Ans: (2)

[1994]

Q2614. Ultraviolet radiations from sunlight causes a reaction that produces

- (1) Sulphur dioxide
- (2) Fluorides
- (3) Ozone
- (4) Carbon monoxide

Ans: (3)

[1994]

Q2615. Most hazardous metal pollutant of automobile exhausts is

- (1) Lead
- (2) Mercury
- (3) Copper
- (4) Cadmium

Ans: (1)

[1994]

Q2616. The Taj Mahal is threatened due to the effect of

- (1) chlorine
- (2) oxygen
- (3) sulphur dioxide
- (4) hydrogen

Ans: (3)

[1994]

Q2617. Fish die in water bodies polluted by sewage due to

- (1) reduction in oxygen
- (2) pathogens
- (3) foul smell
- (4) clogging of gills by silt

Ans: (1)

[1994]

Q2618. Sound becomes hazardous noise pollution at level

- (1) Above 100 dB
- (2) Above 30 dB
- (3) Above 120 dB
- (4) Above 80 dB

Ans: (4)

[1994]

Q2619. Drawback of DDT as pesticide is

- (1) It is not easily/rapidly degraded in nature
- (2) It becomes ineffective after sometime
- (3) Its high cost
- (4) It is less effective than others

Ans: (1)

[1994]

Q2620. Disease caused by eating fish found in water contaminated with industrial waste having mercury is

- (1) Hashimoto's disease
- (2) Minamata disease
- (3) Osteosclerosis
- (4) Bright's disease

Ans: (2)

[1995]

Q2621. The major contributor of Green House gases to the atmosphere is

- (1) Germany
- (2) Russia
- (3) Brazil.
- (4) U.S.A.

Ans: (4)

[1995]

Q2622. The worst environmental hazards were created by accidents in nuclear power plant and MIC gas tragedy respectively in

- (1) Bhopal in 1984 & Russia in 1990
- (2) Russia in 1990 & Bhopal in 1986
- (3) Ukraine in 1986 and Bhopal in 1984
- (4) Ukraine in 1988 & USA in 1984

Ans: (3)

[1995]

Q2623. Sewage drained into water bodies kill fishes because

- (1) it removes the food eaten by fish
- (2) excessive carbon dioxide is added to water
- (3) it increases competition with fishes for dissolved oxygen
- (4) it gives off a bad smell

Ans: (3)

[1996]

Q2624. In Minamata Bay Japan, the animals which remained free from Minamata disease, are

- (1) dogs

- (2) pigs
- (3) cats
- (4) rabbits

Ans: (4)

[1996]

Q2625. When huge amount of sewage is dumped into a river, its B.O.D, will

- (1) sharply decrease
- (2) increase
- (3) remain unchanged
- (4) decrease

Ans: (2)

[1996, 2002]

Q2626. The most common indicator organism that represents polluted water is

- (1) C. vibrio
- (2) E. coli
- (3) Entamoeba
- (4) P. typhi

Ans: (2)

[1997]

Q2627. Formation of ozone hole is maximum over

- (1) Antarctica
- (2) India
- (3) Africa
- (4) Europe

Ans: (1)

[1997]

Q2628. In coming years, skin related disorders will be more common due to

- (1) water pollution
- (2) pollutants in air
- (3) depletion of ozone layer
- (4) use of detergents

Ans: (3)

[1997]

Q2629. The CO₂ content in the atmospheric air is about

- (1) 3.34%
- (2) 0.034%
- (3) 6.5%
- (4) 0.34%

Ans: (2)

[1997]

Q2630. Phosphate pollution is caused by

- (1) sewage and phosphate rocks
- (2) phosphate rocks only
- (3) sewage and agricultural fertilizers
- (4) agricultural fertilizers only

Ans: (3)

[1997, 2004]

Q2631. Which of these is a pollution related to occupational health hazard?

- (1) Fluorosis
- (2) Pneumoconiosis
- (3) Silicosis
- (4) Asthma

Ans: (3)

[1998]

Q2632. DDT causes egg shell thinning in birds because it inhibits

- (1) Magnesium ATPase
- (2) Calmodulin
- (3) Carbonic anhydrase
- (4) Calcium ATPase

Ans: (4)

[1998]

Q2633. Which important green house gas other than methane is being produced from the agricultural fields?

- (1) Nitrous oxide
- (2) Sulphur dioxide
- (3) Arsine

(4) Ammonia

Ans: (1)

[1998]

Q2634. Which one of the following organisms is used as indicator of water quality?

- (1) Escherichia
- (2) Chlorella
- (3) Biggiatoa
- (4) Azospirillum

Ans: (1)

[1999]

Q2635. How does carbon monoxide, a poisonous gas emitted by automobiles, prevent transport of oxygen into the body tissues?

- (1) By obstructing the reaction of oxygen with haemoglobin
- (2) By destroying the haemoglobin
- (3) By changing oxygen into carbon dioxide.
- (4) By forming a stable compound with haemoglobin

Ans: (4)

[1999]

Q2636. Which of the following is a secondary pollutant?

- (1) PAN
- (2) CO
- (3) Aerosol
- (4) CO₂

Ans: (1)

[1999]

Q2637. Which of the following organism is likely to have more concentration of D.D.T. in its body?

- (1) Top carnivores
- (2) Herbivores
- (3) Primary producers
- (4) Carnivores

Ans: (1)

[1999]

Q2638. Green house effect refers to

- (1) production of cereals
- (2) cooling of earth
- (3) warming of earth
- (4) trapping of UV rays

Ans: (3)

[1999]

Q2639. Which of the following is the use of lichens in case of pollution?

- (1) They promote pollution
- (2) They treat the polluted water
- (3) Lichens are not related with pollution
- (4) They act as bioindicators of pollution

Ans: (4)

[1999]

Q2640. Maximum bioconcentration of pesticide residues is usually found in birds that exclusively feed on

- (1) worms
- (2) fish
- (3) meat
- (4) seeds

Ans: (2)

[1999]

Q2641. In 1984, Bhopal gas tragedy took place because methyl isocyanate

- (1) reacted with CO_2
- (2) reacted with DDT
- (3) reacted with water
- (4) reacted with ammonia

Ans: (3)

[1999]

Q2642. A major component of gobar gas is

- (1) Ethane
- (2) Ammonia
- (3) Butane
- (4) Methane

Ans: (4)

[2002]

Q2643. Escherichia coli is used as an indicator organism to determine pollution of water with

- (1) faecal matter
- (2) pollen of aquatic plants
- (3) industrial effluents
- (4) heavy metals

Ans: (1)

[2003]

Q2644. Which of the following is absent in polluted water?

- (1) Larva of stone fly
- (2) Hydrilla
- (3) Blue green algae
- (4) Water hyacinth

Ans: (2)

[2004]

Q2645. D.D.T. is

- (1) not a pollutant
- (2) a non –degradable pollutant
- (3) an antibiotic
- (4) A bio-degradable pollutant

Ans: (2)

[2004]

Q2646. Identify the correctly matched pair.

- (1) Montreal Protocol - Global warming
- (2) Basal Convention - Biodiversity Conservation
- (3) Ramsar - Ground water Convention pollution
- (4) Kyoto Protocol - Climatic change

Ans: (4)

[2004]

Q2647. Which of the following is not used for disinfection of drinking water?

- (1) Chloramine
- (2) Chlorine

(3) Phenyl

(4) Ozone

Ans: (3)

[2004]

Q2648. Prolonged liberal irrigation of agricultural fields is likely to create the problem of

(1) Salinity

(2) Acidity

(3) Metal toxicity

(4) Aridity

Ans: (1)

[2005]

Q2649. Recently Govt. of India has allowed mixing of alcohol in petrol. What is the amount of alcohol permitted for mixing in petrol?

(1) 10%

(2) 2.5%

(3) 5%

(4) 10 – 15%

Ans: (3)

[2005]

Q2650. Lead concentration in blood is considered alarming if it is

(1) 4–6 mg/100 ml

(2) 20 mg/100 ml

(3) 10 mg/100 ml

(4) 30 mg/100 ml

Ans: (4)

[2005]

Q2651. In which one of the following the BOD (Biochemical Oxygen Demand) of sewage (S), distillery effluent (DE), paper mill effluent (PE) and sugar mill effluent (SE) have been arranged in ascending order?

(1) $S < DE < PE < SE$

(2) $SE < PE < S < DE$

(3) $SE < S < PE < DE$.

(4) PE < S < SE < DE

Ans: (4)

[2005]

Q2652. Montreal protocol which calls for appropriate action to protect the ozone layer from human activities was passed in the year

(1) 1985

(2) 1987

(3) 1986

(4) 1988

Ans: (2)

[2006]

Q2653. Photochemical smog pollution does not contain

(1) PAN (peroxy acyl nitrate)

(2) Nitrogen dioxide

(3) Ozone

(4) Carbon dioxide

Ans: (4)

[2006]

Q2654. Limit of BOD prescribed by Central Pollution Control Board for the discharge of industrial and municipal waste waters into natural surface waters, is

(1) < 30 ppm

(2) < 10 ppm

(3) < 3.0 ppm

(4) < 100 ppm

Ans: (2)

[2006]

Q2655. Which one of the following pairs is mismatched?

(1) Solar energy - green house effect

(2) Fossil fuel burning - release of CO₂

(3) Biomass burning - release of CO₂

(4) Nuclear power - radioactive wastes

Ans: (1)

[2007]

Q2656. Which one of the following is the correct percentag of the two (out of the total of 4) green house gases that contribute to the total global warming?

- (1) N_2 O 6%, CO_2 86%
- (2) CFCs 14%, Methane 20%
- (3) Methane 20%, N_2 O 18%
- (4) CO_2 , 40%, CFCs 30%

Ans: (2)

[2007]

Q2657. Which one of the following is being tried in India as a biofuel substitute for fossil fuels?

- (1) Musa
- (2) Jatropha
- (3) Aegilops
- (4) Azadirachta

Ans: (2)

[2007]

Q2658. According to Central Pollution Control Board (CPCB), which particulate size in diameter (in micrometers) of the air pollutants is responsible for greatest harm to human health?

- (1) 1.0 or less
- (2) 2.5 or less
- (3) 5.2-2.5
- (4) 1.5 or less

Ans: (2)

[2008]

Q2659. Which one of the following is not a bioindicator of water pollution?

- (1) Sewage fungus
- (2) Blood-worms
- (3) Sludge-worms.
- (4) Stone flies

Ans: (4)

[2008]

Q2660. In a coal fired power plant electrostatic precipitators are installed to control emission of

- (1) CO
- (2) NO_x
- (3) SO₂
- (4) SPM

Ans: (4)

[2008]

Q2661. Steps taken by the Government of India to control air pollution include

- (1) use of non-polluting Compressed Natural Gas (CNG) only as fuel by all buses and trucks.
- (2) compulsory PUC (Pollution Under Control) certification of petrol driven vehicles which tests for carbon monoxide and hydrocarbons.
- (3) compulsory mixing of 20% ethyl alcohol with petrol and 20% biodiesel with diesel.
- (4) permission to use only pure diesel with a maximum of 500 ppm sulphur as fuel for vehicles.

Ans: (2)

[2008]

Q2662. Which of the following plant species you would select for the production of bioethanol?

- (1) Jatropha
- (2) Zea mays
- (3) Brassica
- (4) Pongamia

Ans: (1)

[2009]

Q2663. Biochemical Oxygen Demand (BOD) in a river water

- (1) increases when sewage gets mixed with river water.
- (2) has no relationship with concentration of oxygen in the water.
- (3) remains unchanged when algal bloom occurs.
- (4) gives a measure of Salmonella in the water.

Ans: (1)

[2009]

Q2664. Global agreement in specific control strategies to reduce the release of ozone depleting substances, was adopted by

- (1) The Vienna Convention
- (2) The Montreal Protocol
- (3) Rio de Janeiro Conference
- (4) The Koyoto Protocol

Ans: (2)

[2009]

Q2665. World Summit on Sustainable Development (2002) was held in

- (1) Argentina
- (2) Brazil
- (3) South Africa
- (4) Sweden

Ans: (3)

[2009]

Q2666. A renewable exhaustible natural resource is:

- (1) minerals
- (2) coal
- (3) forest
- (4) petroleum

Ans: (3)

[2009]

Q2667. The bacterium *Bacillus thuringiensis* is widely used in contemporary biology as

- (1) source of industrial enzyme
- (2) insecticide
- (3) indicator of water pollution
- (4) agent for production of dairy products

Ans: (2)

[2009]

Q2668. Chipko movement was launched for the protection of

- (1) wet lands
- (2) forests
- (3) grasslands

(4) livestock

Ans: (2)

[2009]

Q2669. DDT residues are rapidly passed through food chain causing biomagnification because DDT is

- (1) water soluble
- (2) moderately toxic
- (3) lipo soluble
- (4) non-toxic to aquatic animals

Ans: (3)

[2009]

Q2670. Montreal protocol aims at

- (1) Control of CO_2 emission
- (2) Biodiversity conservation
- (3) Reduction of ozone depleting substances
- (4) Control of water pollution

Ans: (3)

[2010]

Q2671. Which one of following pairs of gases are the major cause of “Greenhouse effect”?

- (1) CFCs and SO_2
- (2) CO_2 and O_3
- (3) CO_2 and N_2O
- (4) CO_2 and CO

Ans: (3)

[2010]

Q2672. Which one of the following expanded forms of the following acronyms is correct?

- (1) EPA = Environmental Pollution Agency
- (2) IPCC = International Panel for Climate Change
- (3) IUCN = International Union for Conservation of Nature and Natural Resources
- (4) UNEP = United Nations Environmental Policy

Ans: (3)

[2010]

Q2673. Stirred tank bioreactors have been designed for

- (1) ensuring anaerobic conditions in the culture vessel
- (2) addition of preservatives to the product
- (3) availability of oxygen throughout the process
- (4) purification of the product

Ans: (3)

[2010]

Q2674. The two gases making highest relative contribution to the greenhouse gases are

- (1) CF_4 and N_2O
- (2) CO_2 and CH_4
- (3) CO_2 and N_2O
- (4) CH_4 and N_2O

Ans: (2)

[2011]

Q2675. dB is a standard abbreviation used for the quantitative expression of

- (1) the dominant Bacillus in a culture
- (2) the density of bacteria in a medium
- (3) a certain pesticide
- (4) a particular pollutant

Ans: (4)

[2011]

Q2676.

Ans: (4)

[2011]

Q2677. "Good ozone " is found in the

- (1) stratosphere
- (2) mesosphere
- (3) ionosphere
- (4) troposphere

Ans: (1)

[2011]

Q2678. Which one of the following statements is wrong in case of Bhopal tragedy?

- (1) Radioactive fall out engulfed Bhopal
- (2) Methyl Isocyanate gas leakage took place
- (3) It took place in the night of December 2/3 1984.
- (4) Thousands of human beings died

Ans: (1)

[2011]

Q2679. Which of the following is mainly produced by the activity of anaerobic bacteria on sewage?

- (1) Mustard gas
- (2) Laughing gas
- (3) Marsh gas
- (4) Propane

Ans: (3)

[2011M]

Q2680. Secondary sewage treatment is mainly a

- (1) chemical process
- (2) physical process
- (3) biological process
- (4) mechanical process

Ans: (3)

Q2681. Kyoto Protocol was endorsed at:

- (1) CoP - 4
- (2) CoP - 5
- (3) CoP - 3
- (4) CoP - 6

Ans: (3)

[2012]

Q2682. The Air Prevention and Control of Pollution Act came into force in:

- (1) 1990
- (2) 1981
- (3) 1975
- (4) 1985

Ans: (2)

[2012]

Q2683. Measuring Biochemical Oxygen Demand (BOD) is a method used for:

- (1) measuring the activity of *Saccharomyces cerevisiae* in producing curd on a commercial scale.
- (2) estimating the amount of organic matter in sewage water.
- (3) working out the efficiency of RBCs about their capacity to carry oxygen.
- (4) working out the efficiency of oil driven automobile engines.

Ans: (2)

[2012]

Q2684. Which one of the following is a wrong statement?

- (1) Greenhouse effect is a natural phenomenon.
- (2) Most of the forests have been lost in tropical areas.
- (3) Eutrophication is a natural phenomenon in freshwater bodies.
- (4) Ozone in upper part of atmosphere is harmful to animals.

Ans: (4)

[NEET 2013]

Q2685. In an area where DDT had been used extensively, the population of birds declined significantly because:

- (1) cobras were feeding exclusively on birds
- (2) birds stopped laying eggs
- (3) many of the birds laid, did not hatch
- (4) earthworms in the area got eradicated

Ans: (3)

[NEET 2013]

Q2686. [NEET 2013]

Q2687. Which one of the following is not correct as regards the harmful effects of particulate matter of the size 2.5 micro meters or less?

- (1) It can directly enter into our circulatory system
- (2) It can be inhaled into the lungs
- (3) It can cause inflammation and damage to the lungs
- (4) It can cause respiratory problems

Ans: (1)

[NEET Kar. 2013]

Q2688. Climate of the world is threatened by

- (1) Increasing amount of atmospheric carbondioxide
- (2) Increasing concentration of atmospheric oxygen
- (3) Decreasing amount of atmospheric carbondioxide
- (4) Decreasing amount of atmospheric oxygen

Ans: (1)

[NEET Kar. 2013]

Q2689. The second commitment period for Kyoto Protocol was decided at

- (1) Bali
- (2) Cancun
- (3) Doha
- (4) Durban

Ans: (3)

[NEET Kar. 2013]

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