Chapter:17 Breathing and Exchange of Gases

True and False

Q.No	Question	Answer True/ False	Typology
Q.1	Haemozoin is a respiratory pigment	False	Understanding
Q.2	Respiratory rate increases with the increase of temperature	True	Evaluation
Q.3	The volume of air inhaled or exhaled in normal inspiration and expiration is called tidal volume	True	Knowledge
Q.4	The combination of oxygen with haemoglobin increases if carbon di oxide concentration in blood is less.	True	Knowledge
Q.5	One haemoglobin molecule carries three molecules of oxygen	False	Knowledge
Q.6	Respiratory Rhythm Centre lies in the Pons	False	Understanding
Q.7	Emphysema is a respiratory disorder	True	Knowledge
Q.8	Inspiration and Expiration are carried out by creating pressure gradient between the atmosphere and the alveoli	True	Understanding
Q.9	Every hundred ml of oxygenated blood can deliver around 5 ml of oxygen to the tissue under normal physiological condition.	True	Understanding
Q.10	Blood is the medium of transport for oxygen and carbon dioxide.	True	Knowledge

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Multiple Choice Questions

Q.No	Question	Answer	Typology
Q.1	Fishes respire through A. Gills B. Lungs C. Skin D. nose	A. Gills	Knowledge
Q.2	Passage of air in human beings: A. Nasopharynx, Trachea, Bronchi, Bronchioles, Alveoli B. Nasopharynx, Bronchi, Trachea, Bronchioles, Alveoli C. Nasopharynx, Trachea, Bronchi, Alveoli D. Nasopharynx, Trachea, Bronchioles, Alveoli	A. Nasopharynx, Trachea, Bronchi, Bronchioles, Alveoli	Understanding
Q.3	Human beings breathe: A. 12 – 30 times /min B. 12 – 18 times /min C. 12 – 20 times /min D. 12 – 15 times /min	B. 12 – 18 times/min	Knowledge
Q.4	Volume of air inhaled or exhaled is measured by: A. Respirometer B. Barometer C. Manometer D. Spirometer	D. Spirometer	Knowledge
Q.5	Residual volume of air is: A. 1100 – 1200 ml B. 1200 – 1500 ml C. 1200 – 1800 ml D. 1100 – 1500 ml	A. 1100 – 1200 ml	Knowledge
Q.6	During inspiration, partial pressure of oxygen in alveoli is: A. 104 mm Hg B. 44 mm Hg C. 40 mm Hg D. 95 mm Hg	D. 104 mm Hg	Understanding
Q.7	Binding of oxygen with haemoglobin is dependent on: A. Air pressure B. pO_2 C. K+ ions D. Na+ ions	B. pO_2	Knowledge

Q.8	Respiration is controlled by: A. Medulla oblongata B. Cerebellum C. Epithalamus D. Mid brain	A. Medulla oblongata	Knowledge
Q.9	Respiratory rhythm centre is present in: A. Pons B. Medulla C. Cerebellum D. Cerebrum	B. Medulla	Knowledge
Q.10	Each haemoglobin molecule can carry a maximum of ___ oxygen molecules: A. Two B. Three C. Four D. One	C. Four	Understanding

Fill in the Blanks

Q.No	Question	Answer	Typology
Q.1	Carbon dioxide is carried by haemoglobin as ----------	Carbaminohemoglobin	Understanding
Q.2	Haemoglobin is iron containing pigment _____ in colour.	Red	Knowledge
Q.3	Respiratory rhythm is maintained by the respiratory rhythm center in the ---------- region of the brain.	Medulla	Understanding
Q.4	Aquatic Arthropods and Molluscs use vascularized structure called ---------- for breathing.	Gills	Knowledge
Q.5	The process of exchange of gases from the atmosphere by the cell is called as----------	Breathing	Understanding
Q.6	Nasopharynx guarded by----------	Glottis	Knowledge
Q.7	Thoracic chamber is formed dorsally by the ---------- , Ventrally by the ----------	Vertebral column , Sternum	Knowledge
Q.8	Volume of the air involved in breathing movement can be estimated by using ---------- which helps in clinical assessment of pulmonary functions.	Spirometer	Understanding
Q.9	Ribs moves outwards during respiration with the help of ---------- muscles	External Inter costal	Application
Q.10	Dissociation of oxygen from oxyhaemoglobin takes place in _____	Tissue	Understanding

Match the Following

Q.No	Question		Answer		Typology
Q.1	Column A a.inhalation and exhalation b.oxidation of complex organic substances	Column B i)respiration ii)circulation iii)breathing iv)excretion	Column A a. b.	Column B iii) i)	Understanding
Q.2	Column A a.Tidal volume+ inspiratory volume b.Tidal volume+ expiratory reserve volume +inspiratory reserve volume	Column B i)total lung caapacity ii)residual volume iii)vital capacity iv)inspiratory capacity	Column A a. b.	Column B iv) iii)	Understanding
Q.3	Column A a.pulmonary respiration b.cutaneous respiration	Column B i)skin ii)gills iii)operculum iv)lungs	Column A a. b.	Column B iv) i)	understanding
Q.4	Column A a.Sponges b.Earthworm	Column B i)cuticle ii)tracheal tubes iii)diffusion iv)gills	Column A a. b.	Column B iii) i)	Knowledge
Q.5	Column A a.Larynx b.Pharynx	Column B i)trachea ii)voice box iii)prevents entry of food into wind pipe	Column A a. b.	Column B ii) iv)	Knowledge

		iv)passage for food and air			
Q.6	Column A a.inflammation of bronchi and bronchioles b.proliferation of fibrous tissues	Column B i)Fibrosis ii)Asthma iii)Emphysema iv)Pneumonia	Column A a. b.	Column B ii) i)	Application
Q.7	Column A a.Pneumotaxic centre b.Respiratory rhythm centre	Column B i)medulla ii)cerebrum iii)cerebellum iv)pons	Column A a. b.	Column B iv) i)	Knowledge
Q.8	Column A a.Inspiration b.Expiration	Column B i)decrease in inter pulmonary pressure ii)increase in inter pulmonary pressure iii)decrease in intra pulmonary pressure iv)increase in intra pulmonary pressure	Column A a. b.	Column B iii) iv)	Application
Q.9	Column A a.percentage of O_2 transported by RBC in the blood b.percentage of CO_2 transported by RBC in the blood	Column B i)70% ii)97% iii)20-25% iv)3%	Column A a. b.	Column B ii) iii)	Knowledge