

Class : XIth

Date :

Subject : Biology

DPP No. :9

Topic :-Breathing and Exchange of Gases

1.	Under normal conditions, what amount of O_2 is delivered by 100 mL of the oxygenated blood?							
	a) 5 mL	b) 4 mL		c) 3 n	nL	d) 2 mL		
2.	2. ρCO_2 is higher in tissues due to							
	a) Anabolism c) Building up of carbohydrates			b) Catabolism				
				d) Building up of proteins				
3.	During inspiration, the diap <mark>hragm</mark>							
	a) Expands			b) Sh	ows no change			
	c) Contracts and flatten	S		d) Re	laxes to become	dome-shaped		
4.	During expiration, the c	liap <mark>hragı</mark>	n becomes					
	a) Normal	b) <mark>Flatte</mark>	ned	c) Do	me-shaped	d) Oblique		
5.	 Severe Acute Respiratory Syndrome (SARS) a) Is caused by a variant of <i>Pneumococcus pneumoniae</i> b) Is caused by a variant of the common cold virus (corona virus) c) Is an acute form of asthma 							
	d) Affects non-vegetarians much faster than vegetarians							
6.	About 1200 mL of air is always known to remain inside the human lungs. It is described as							
	a) Inspiratory reserve volume		b) Expiratory reserve volume					
	c) Residual volume			d) Tidal volume				
7. Respiratory centre is present in								
	a) Cerebellum	b) Cereb	rum	c) Me	edulla oblongata	d) Hypothalamus		
8.	Exchange of gases in man takes place in							
	a) Trachea	b) Bronc	hus	c) Alv	veoli	d) All of these		
9.	Which one of the following statements is incorrect? a) The residual air in lungs slightly decreases the efficiency of respiration in mammals b) The presence of non-respiratory air sacs, increases the efficiency of respiration in birds							
	c) In insects, circulating body fluids serve to distribute oxygen to tissues							

d) The principle of countercurrent flow facilitates efficient respiration in gills of fishes

CasesVeins O_2 40 mm kg95 mm kg CO_2 ABChoose the correct option for A and B to complete the given dataa) A-45 mm Hg; B-40 mm Hgb) A-45 mm Hg; B-45 mm Hgc) A-45 mm Hg; B-50 mm Hgd) A-45 mm Hg; B-55 mm Hg11.Larynx is present in betweena) Epiglottis and glottisb) Trachea and bronchiolec) Epiglottis and trachead) Bronchus and epiglottis12.Arrange the given steps of respiration in the sequence of event they occurI. Diffusion of gases, O_2 and CO_2 across the alveolar membraneIII. Utilisation of O_2 by the cells for catabolic reactions and the resultant release of CO_2 IV. Pulmonary ventilation by which atmospheric air is drawn in and CO_2 rich alveolar air is released outV. Diffusion of O_2 and CO_2 between the blood and tissueChoose the correct optiona) $III \rightarrow V \rightarrow II \rightarrow I \rightarrow IV$ b) $III \rightarrow II \rightarrow IV \rightarrow II \rightarrow IV b) III \rightarrow V \rightarrow II \rightarrow I \rightarrow IV b) III \rightarrow II \rightarrow IV c) V \rightarrow IV \rightarrow III \rightarrow I < II > II \rightarrow III \rightarrow III \rightarrow IV $						
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V. Diffusion of O ₂ and CO ₂ between the blood and tissue Choose the correct option a) III $\rightarrow V \rightarrow II \rightarrow I \vee b$) III $\rightarrow II \rightarrow V \rightarrow I \rightarrow IV$ c) $V \rightarrow IV \rightarrow III \rightarrow II \rightarrow I \vee b$ $II \rightarrow III \rightarrow IV \rightarrow IV \rightarrow III \rightarrow II \rightarrow I \vee b$						
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	V					
AnA in the pulmonary <mark>volum</mark> eB <mark>. the i</mark> ntra pulmonary pressure to less than the						
atmospheric pressure whic <mark>h for</mark> ces th <mark>e air fr</mark> omC to move into the lungs, <i>i.e.</i> ,D						
Choose the correct options for the blanks A, B, C and D to complete the above statement with						
reference to NCERT textbook						
a) A-increase, B-decrease, C-outside, D-expiration						
b) A decrease, B-increase, C-outside, D-expiration						
c) A-decrease, B-increase, C-inside, D-inspiration						
a) A-increase, B-decrease, C-outside, D-inspiration						
14. A spirometer cannot be used to measure						
$\frac{1}{10} D = \frac{1}{10} R = \frac{1}$						
15. Binding of CO_2 to oxynaethogrophi occurs when $b = cO_2$ is low and aO_2 is high in tiggue						
a) ρCO_2 is high and ρO_2 is less in tissue b) ρCO_2 is low and ρO_2 is high in tissue						
c) $\rho_{\rm C} O_2$ is low and $\rho_{\rm C} O_2$ is low in tissue d) $\rho_{\rm C} O_2$ is high and $\rho_{\rm C} O_2$ is high in tissue						
16. Aerobic respiration involves						
I. external respiration						
III internal respiration						
IV cellular respiration						
Choose the correct combination of options for the given statements						
a) I. II and III b) II. III and IV c) I. III and IV d) All of the above						
17. CO ₂ is carried by haemoglobin is						
a) Carboxy haemoglobin b) Carbamino haemoglobin						
c) Carbamido haemoglobin d) Deoxyhaemoglobin						

- 18. Partial pressure of the gas is the pressure contributed by
 - a) All gases in a mixture b) Individual gas in a mixture
 - c) Pressure exerted by atmosphere on gases d) Atmosphere on O₂ only
- 19. Which of the following structure is present inside the larynx of the respiratory system?
- a) Glottisb) Epiglottisc) Vocal cordsd) None of these20. Which of the following respiratory organs are present in spiders and scorpions?
 - a) Book lungs b) Gills c) Gill books d) Lungs

