Bio Tuition Wala
Std 11 : Biology
Neet test series

Chapters : Breathing & Exchange of gases | **Date : .....**

Total Marks : 80 marks | **Time : .....**

Section A

● **Write the answer of the following questions. [Each carries 1 Mark]** **[20]**

1. Mark the true statement among the following with reference to normal breathing

(A) Inspiration is a passive process whereas expiration is active

(B) Inspiration is a active process whereas expiration is passive

(C) Inspiration and expiration are active processes

(D) Inspiration and expiration are passive processes

2. A person suffers punctures in his chest cavity in an accident, without any damage to the lungs its effect could be .....

(A) Reduced breathing rate

(B) Rapid increase in breathing rate

(C) No change in respiration

(D) Cessation of breathing

3. It is known that exposure to carbon monoxide is harmful to animals because .....

(A) It reduces CO_2 transport

(B) It reduces O_2 transport

(C) It increases CO_2 transport

(D) It increases O_2 transport

4. Which of the following does not occur during breathing ?

(A) Brings the air to body temperature

(B) Warms up the air

(C) Diffusion of gases

(D) Cleans up the air

5. Respiration in insects is called direct because

(A) The cells exchange O_2 / CO_2 directly with the air in the tubes

(B) The tissues exchange O_2 / CO_2 directly with coelomic fluid

(C) The tissues exchange O_2 / CO_2 directly with the air outside through body surface

(D) Tracheal tubes exchange O_2 / CO_2 directly with the hemocoel which then exchange with tissues

6. Match the following columns.

Column-I	Column-II
(a) Earthworm	(1) Moist cuticle
(b) Aquatic arthropods	(2) Gills
(c) Fishes	(3) Lungs
(d) Birds/Reptiles	(4) Trachea

(A) (a - 2), (b - 1), (c - 4), (d - 3)

(B) (a - 1), (b - 4), (c - 2), (d - 3)

(C) (a - 1), (b - 3), (c - 2), (d - 4)

(D) (a - 1), (b - 2), (c - 4), (d - 3)

7. From the following relationships between respiratory volume and capacities, mark the correct option.

(i) Inspiratory Capacity (IC) = Tidal Volume + Residual Volume.

(ii) Vital Capacity (VC) = Tidal Volume (TV) + Inspiratory Reserve Volume (IRV) + Expiratory Reserve Volume (ERV).

(iii) Residual Volume (RV) = Vital Capacity = (VC) – Inspiratory Reserve Volume (IRV).

(iv) Tidal Volume (TV) = Inspiratory Capacity (IC) – Inspiratory Reserve Volume (IRV).

(A) (i) Incorrect, (ii) Incorrect, (iii) Incorrect, (iv) Correct

(B) (i) Incorrect, (ii) Correct, (iii) Incorrect, (iv) Correct

(C) (i) Correct, (ii) Correct, (iii) Incorrect, (iv) Correct
(D) (i) Correct, (ii) Incorrect, (iii) Correct, (iv) Incorrect

8. In lungs PO_2 = ...
(A) 100 mm Hg (B) 110 mm Hg (C) 40 mm Hg (D) 60 mm Hg

9. We can not breathe for few seconds after taking a long and deep breathe.
(A) There is much CO_2 in blood so (B) There is much O_2 in blood so
(C) There is less CO_2 in blood so (D) There is loss O_2 in blood so

10. When concentration of CO_2 is less in blood then respiration is ..... .
(A) Slow and deep (B) Fast and deep
(C) Shallow and slow (D) No effect on respiration

11. Which of the following is called Hambergerse shift ?
(A) Hydrogen shift (B) Bicarbonate shift (C) Chloride shift (D) Sodium shift

12. In lungs, definite ions are exchanged between RBC and blood plasma. It shows release of CO_2 from blood.
(A) External transport of Cl^- in RBC (B) Internal transport of Cl^- in RBC
(C) Internal transport of HCO^-_3 in RBC (D) External transport of HCO^-_3 in RBC

13. Respiratory rhythm centre is present in
(A) Forebrain (B) Pons (C) Medulla (D) None of these

14. Inspiration is initiated by
(A) Relaxation of diaphragm (B) Contraction of diaphragm
(C) Transport of gases by blood (D) All of these

15. Solubility of CO_2 is how much times higher than O_2 in blood ?
(A) 10 times (B) 20 - 25 times (C) 30 times (D) 40 times

16. In the trachea ..... 'C' shaped cartilagenous rings are present.
(A) 5-10 (B) 10-15 (C) 16-20 (D) 20-25

17. External nostrils ? vestibules ? nasal chambers ? internal nares ? naso pharynx ? X ? larynx ? trachea. What is X ?
(A) Glottis (B) Alveoli (C) Atria (D) Bronchi

18. A : If there is no air in trachea, it will collapse.
R : Trachea is without cartilaginous rings.
(A) A and R both are correct and R is correct explanation of A.
(B) A and R are correct but R is not correct explanation of A.
(C) A is correct and R is false.
(D) Both A and R are false.

19. A : Vital capacity is higher in athletes than non-athletes.
R : Vital capacity is about 3.5 - 4.5 L in normal adult person.
(A) A and R both are correct and R is correct explanation of A.
(B) A and R are correct but R is not correct explanation of A.
(C) A is correct and R is false.
(D) Both A and R are false.

20. The partial pressures (in mm Hg) of oxygen (O_2) and carbon dioxide (CO_2) at alveoli (the site of diffusion) are :
(A) pO_2 = 95 and pCO_2 = 40 (B) pO_2 = 159 and pCO_2 = 0.3
(C) pO_2 = 104 and pCO_2 = 40 (D) pO_2 = 40 and pCO_2 = 45