Bio tuition wala
Std 11 : Biology
Neet series

Chapter : Respiration in plants | **Date : .....**

Total Marks : 80 Marks | **Time : 1 Hour**

Section A

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

1. Pyruvic acid, the key product of glycolysis can have many metabolic fates. Under aerobic condition it forms

(A) Lactic acid (B) $CO_2 + H_2O$ (C) Acetyl CoA + CO_2 (D) Ethanol + CO_2

2. Electron Transport System (ETS) is located in mitochondrial

(A) Outer membrane (B) Inter membrane space

(C) Inner membrane (D) Matrix

3. Choose the correct statement :

(A) Pyruvate is formed in the mitochondrial matrix.

(B) During the conversion of succinyl Co-A to succinic acid a molecule of ATP is synthesized.

(C) Oxygen is vital in respiration for removal of hydrogen.

(D) There is complete breakdown of glucose in fermentation.

4. Mitochondria are called powerhouses of the cell. Which of the following observations support this statement ?

(A) Mitochondria synthesise ATP

(B) Mitochondria have a double membrane

(C) The enzymes of the Krebs cycle and the cytochromes are found in mitochondria.

(D) Mitochondria are found in almost all plants and animal cells.

5. Match the following column.

Column-I	Column-II
(a) Molecular oxygen	(i) α-ketoglutaric acid
(b) Electron acceptor	(ii) Hydrogen acceptor
(c) Pyruvate dehydrogenase	(iii) Cytochrome-C
(d) Decarboxylation	(iv) Acetyl CoA

(A) (a - ii), (b - iii), (c - iv), (d - i) (B) (a - iii), (b - iv), (c - ii), (d - i)

(C) (a - ii), (b - i), (c - iii), (d - iv) (D) (a - iv), (b - iii), (c - i), (d - ii)

6. The end product of oxidative phosphorylation is

(A) NADH (B) Oxygen (C) ADP (D) ATP + H_2O

7. Which common biomolecules obtained from the following due to breakdown of fat carbohydrates and protein ?

(A) Fructose 1-6 biphosphate (B) Pyruvic acid

(C) Acetyl COA (D) Glucose 6-phosphate

8. Cytochrome is found in ..... .

(A) Cristae of mitochondria (B) Lysosomes

(C) Matrix of mitochondria (D) Outer membrane of mitochondria

9. In which process CO_2 is not released ?

(A) Aerobic respiration in plants (B) Aerobic respiration in animals

(C) Alcoholic fermentation (D) Lactic acid fermentation

10. When tripalmitin (fatty acid) is used as respiratory substance, which of the following figure shows true respiratory quotient ?
(A) 1 (B) 0.7 (C) 0.9 (D) 1.1

11. All the reactions of Kreb's cycle takes place in
(A) Cytosol (B) Mitochondrial matrix (C) Thylakoid (D) Cell membrane

12. 1 molecule of 6C glucose is converted into how many molecules in glycolysis ?
(A) 6C galactose
(B) 2 molecules of 3C PGA
(C) 2 molecules of 3C pyruvate
(D) 2C phosphoglycolate and PGA

13. Which is true for 1 cycle of TCA ?
(A) $2FADH_2$, $2NADH_2$, 2ATP
(B) $1FADH_2$, $2NADH_2$ 2ATP
(C) 1FADH, 3NADH, 1ATP
(D) $1FADH_2$, 4NADH, 1ATP

14. Pyruvic acid is the end product of which process ?
(A) Fermentation (B) Glycolysis (C) TCA cycle (D) Kreb's cycle

15. What is the product of anaerobic respiration ?
(A) O_2 and acetaldehyde
(B) O_2 and ethyl alcohol
(C) CO_2 and ethyl alcohol
(D) CO_2 and acetaldehyde

16. P in EMP refers to
(A) Pathway (B) Panras (C) Parnas (D) Phosphate

17. In complete oxidation of pyruvate
(A) There is complete removal of all hydrogen atoms
(B) 3 molecules of CO_2 are produced
(C) Both (A) and (B)
(D) None of these

18. RQ of tripalmitin is
(A) 0.9 (B) 1.0 (C) 0.7 (D) 2

19. Final hydrogen acceptor in ETS is
(A) CO_2 (B) O_2 (C) FeS (D) Cu

20. A : Anaerobic respiration causes fatigue in humans.
R : With rest the fatigue disappears.
(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.