

Chapter – 12 | Respiration in Plants**QUIZ
PART-03**

1. Fermentation occurs mainly in absence of —

- A. CO_2
 - B. O_2
 - C. Glucose
 - D. Water
- (B)

Explanation : Fermentation is anaerobic and occurs without oxygen.

2. Fermentation is common in —

- A. Yeast and many bacteria
 - B. Only green leaves
 - C. Only mitochondria
 - D. Only flowers
- (A)

Explanation : Most bacteria and fungi like yeast carry out fermentation.

3. Who proved alcoholic fermentation by yeast cells?

- A. Pasteur
 - B. Hans Krebs
 - C. Ganong
 - D. Parnas
- (A)

Explanation : Pasteur proved that alcoholic fermentation occurs due to metabolic activity of yeast.

4. Buchner isolated which enzyme from yeast?

- A. Zymase
 - B. RuBisCO
 - C. Hexokinase
 - D. Citrate synthetase
- (A)

Explanation : Buchner isolated zymase, which can ferment sugar even without living yeast cells.

5. In alcoholic fermentation, pyruvic acid first forms —

- A. Acetaldehyde and CO_2
 - B. Lactic acid and water
 - C. Acetyl Co-A and NADH
 - D. Citric acid and ATP
- (A)

Explanation : Pyruvate decarboxylase converts pyruvic acid into acetaldehyde and CO_2 .

6. Acetaldehyde is reduced to ethyl alcohol by —

- A. Alcohol dehydrogenase
 - B. Lactic dehydrogenase
 - C. Pyruvate kinase
 - D. Invertase
- (A)

Explanation : Alcohol dehydrogenase converts acetaldehyde into ethyl alcohol using $\text{NADH} + \text{H}^+$.

7. Lactic acid fermentation occurs in muscle cells when —

- A. Oxygen is insufficient
 - B. Oxygen is very high
 - C. Glucose is absent
 - D. ATP is not required
- (A)

Explanation : During heavy exercise, low oxygen leads to lactic acid formation.

8. Milk sugar is converted into lactic acid by —

- A. Lactobacillus bacteria
 - B. Yeast only
 - C. Mitochondria
 - D. Chloroplasts
- (A)

Explanation : Lactobacillus acidophilus and Lactobacillus lactis convert lactose into lactic acid.

9. Fermentation gives only —

- A. 2 ATP molecules
 - B. 8 ATP molecules
 - C. 36 ATP molecules
 - D. 38 ATP molecules
- (A)

Explanation : Fermentation gains ATP only from glycolysis, so net yield is 2 ATP.

10. Link reaction connects —

- A. Glycolysis and Krebs cycle
 - B. Photosynthesis and transpiration
 - C. Calvin cycle and glycolysis
 - D. Fermentation and photosynthesis
- (A)

Explanation : Pyruvate is converted into acetyl Co-A, which enters the Krebs cycle.