

Chapter – 12 | Respiration in Plants**QUIZ
PART-04**

1. The Krebs cycle was described by —

- A. Hans Krebs
- B. Pasteur
- C. Buchner
- D. Embden (A)

Explanation : Hans Krebs described the tricarboxylic acid cycle.

2. Krebs cycle is also called —

- A. EMP pathway
- B. Citric acid cycle
- C. Glycolate cycle
- D. Fermentation cycle (B)

Explanation : The cycle begins with citric acid formation, so it is also called citric acid cycle.

3. Krebs cycle starts when acetyl Co-A combines with —

- A. Oxaloacetic acid
- B. Pyruvic acid
- C. Glucose
- D. Ethanol (A)

Explanation : Acetyl Co-A combines with OAA to form citric acid.

4. Citric acid contains how many carbon atoms?

- A. 2
- B. 4
- C. 6
- D. 8 (C)

Explanation : Citric acid is a six-carbon compound.

5. Citrate synthetase helps in formation of —

- A. Citric acid
- B. Lactic acid
- C. Ethanol
- D. Glucose (A)

Explanation : Citrate synthetase catalyzes condensation of acetyl group with OAA.

6. Isocitric acid is oxidized to form —

- A. α -ketoglutaric acid
- B. Succinic acid
- C. Fumaric acid
- D. Malic acid (A)

Explanation : Isocitric dehydrogenase converts isocitric acid into α -ketoglutaric acid.

7. Succinyl Co-A gives rise to —

- A. Succinic acid
- B. Citric acid
- C. Glucose
- D. Acetaldehyde (A)

Explanation : Succinyl Co-A is converted to succinic acid with release of energy as GTP.

8. FADH_2 is formed during conversion of —

- A. Succinic acid to fumaric acid
- B. Citric acid to isocitric acid
- C. Malic acid to OAA
- D. Pyruvic acid to acetyl Co-A (A)

Explanation : Succinic dehydrogenase removes hydrogen and FAD accepts it.

9. Last step of Krebs cycle forms —

- A. Oxaloacetic acid
- B. Alcohol
- C. Lactic acid
- D. Fructose (A)

Explanation : Malic acid is oxidized to oxaloacetic acid, which restarts the cycle.

10. Complete breakdown of glucose produces how many $\text{NADH} + \text{H}^+$ molecules?

- A. 2
- B. 4
- C. 10
- D. 18 (C)

Explanation : Complete glucose oxidation produces 10 $\text{NADH} + \text{H}^+$ molecules.