

SSR DEGREE COLLEGE (AUTONOMOUS) NIZAMABAD
M.Sc Botany sem1 internal - 2
Paper:(IV)Plant Biochemistry
QUESTION BANK

I.MCQ

1. Glycolysis takes place in the

- A. Mitochondria
- B. Nucleus
- C. Cytoplasm
- D. Chloroplast

Answer: C. Cytoplasm

2. The net gain of ATP molecules during glycolysis is

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B. 2

3. The end product of glycolysis is

- A. Acetyl CoA
- B. Pyruvic acid
- C. Lactic acid
- D. Ethanol

Answer: B. Pyruvic acid

4. Fermentation occurs in the absence of

- A. Enzymes
- B. CO₂
- C. Oxygen
- D. ATP

Answer: C. Oxygen

5. The tricarboxylic acid (TCA) cycle occurs in the

- A. Cytoplasm
- B. Nucleus
- C. Mitochondrial matrix
- D. Ribosome

Answer: C. Mitochondrial matrix

6. The first stable compound formed in the TCA cycle is

- A. Citrate
- B. Oxaloacetate
- C. Succinate
- D. Malate

Answer: A. Citrate

7. Oxidative phosphorylation takes place in the

- A. Outer mitochondrial membrane
- B. Inner mitochondrial membrane
- C. Cytoplasm
- D. Mitochondrial matrix

Answer: B. Inner mitochondrial membrane

8. The chemiosmotic hypothesis was proposed by

- A. Krebs
- B. Calvin
- C. Peter Mitchell
- D. Warburg

Answer: C. Peter Mitchell

9. Hexose monophosphate pathway is also known as

- A. EMP pathway

B. Glycolysis

C. Pentose phosphate pathway

D. TCA cycle

Answer: C. Pentose phosphate pathway

10. Cyanide inhibits respiration by blocking

A. Glycolysis

B. TCA cycle

C. Cytochrome oxidase

D. ATP synthase

Answer: C. Cytochrome oxidase

II. Fill in the blanks

1. Glycolysis takes place in the ____ of the cell.

Answer: Cytoplasm

2. The end product of glycolysis is ____.

Answer: Pyruvic acid

3. Heterocarboxylic acid cycle is also known as the ____ cycle.

Answer: Krebs cycle

4. Fermentation occurs in the absence of ____.

Answer: Oxygen

5. During alcoholic fermentation, pyruvate is converted into ethanol and ____.

Answer: Carbon dioxide

6. The electron transport chain is located in the ____ membrane of mitochondria.

Answer: Inner

7. Oxidative phosphorylation results in the formation of ____.

Answer: ATP

8. The chemiosmotic hypothesis was proposed by ____.

Answer: Peter Mitchell

9. Hexose monophosphate pathway is also called the _____ pathway.

Answer: Pentose phosphate

10. Cyanide inhibits respiration by blocking the enzyme _____.

Answer: Cytochrome oxidase

III. Descriptive questions

1. Explain about the classification of Proteins

(Or)

Explain about GOGAT pathway

2. Explain about Glycolysis cycle

(Or)

Explain about Tricarboxylic cycle