



- Notes :
1. All questions are compulsory and carry equal marks.
  2. Solve your answer with suitable diagram and chemical reaction wherever necessary.

1. Describe in detail photorespiration and its significance. **16**

**OR**

Write notes on :-

- a) C<sub>4</sub> pathway. **8**
- b) ATP synthesis in chloroplast and in mitochondria. **8**

2. What is respiration? Describe in details citric acid cycle and its importance. **16**

**OR**

Write notes on:-

- a) Respiratory ratio. **8**
- b) Factors affecting the rate of respiration. **8**

3. Write in detail classification and properties of lipids and its importance. **16**

**OR**

Write notes on :-

- a) Catabolism of starch and sucrose. **8**
- b) Nitrogen fixation by symbiotic Bacteria. **8**

4. Write in detail mechanism of water transport through xylem. **16**

**OR**

Write note on:-

- a) Factors affecting enzyme activity. **8**
- b) Classification of enzymes. **8**

5. Write shorts note on.

- a) Photosynthetic pigments. **4**
- b) Cyanide resistant chain. **4**
- c) Nitrogen cycle. **4**
- d) Allosteric enzymes. **4**

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