

Please check whether you have got the right question paper.

- N.B:
1. All Questions are compulsory.
 2. All Questions carry equal marks.
 3. Draw neat and labelled diagrams and structures wherever necessary.

- Q 1. a)** Give an account on breakdown of Glycogen with suitable schematic representation. **(08)**
OR
- Q 1. a)** Discuss FAS complex with its significance. **(08)**
- Q 1. b)** Explain the significance of HMP shunt **(04)**
OR
- Q 1. b)** Briefly explain the dietary lipids. **(04)**
- Q 2. a)** Discuss the Bicarbonate buffer system with its physiological relevance. **(08)**
OR
- Q 2. a)** Write an essay on iron metabolism in body. **(08)**
- Q 2. b)** Give a brief account of protein buffer system. **(04)**
OR
- Q 2. b)** With reference to water metabolism explain dehydration. **(04)**
- Q 3.** What is salinity? Discuss the impact of salt stress on plant growth and metabolism. Also add a note on mechanism of salinity tolerance in plants. **(12)**
OR
- Q 3. a)** What are Heat shock proteins? Explain their role in heat stress tolerance in plants. **(08)**
- Q 3. b)** How does heavy metals affect plant growth and metabolism? **(04)**
- Q 4. a)** What are CAM Plants? Discuss CAM pathway with its role. **(08)**
OR
- Q 4. a)** Write an essay on nitrogen Fixation. **(08)**
- Q 4. b)** Briefly Explain **(Any one)** **(04)**
- (i) Significance of Glyoxalate Pathway
 - (ii) Bioremediation
- Q 5.** Write short notes on following **(Any Three)** **(12)**
- i) Essential fatty acids
 - ii) Treatment of Acidosis and Alkalosis
 - iii) Biochemical functions of Phosphorus
 - iv) Role of ABA in water stress
 - v) Plant defense against pathogenesis
 - vi) Hydrogenases