

Cat. No: Ssac.1202

Title: Agricultural Biochemistry (2+1)

Marks: 80

Time: 3 hours

- I. Fill up the blanks (1x10=10)
1. The major polysaccharide present in cell wall is -----
 2. Site of glycolysis is-----
 3. Iodine number indicates ----- in oils
 4. The place on enzyme where substrate binds is called-----
 5. The base present in RNA but not in DNA is-----
 6. Primary CO₂ acceptor in C₄ pathway is -----
 7. Golden rice is rich in -----
 8. Basic unit of Chitin is -----
 9. Seat of Electron transport chain in the cell is -----
 10. An example of a cyclic fatty acid -----
- II. Write short notes on **any TEN** (3x10=30)
1. Denaturation of proteins
 2. Isoprenoids
 3. Oxidative and substrate level phosphorylation
 4. Mechanism of degradation of fat
 5. Biodiesel
 6. Electrophoresis
 7. Vitamin B related coenzymes
 8. Phospholipids
 9. Important reactions of amino acids
 10. Significance of CAM plants
 11. Use of phenols in food and pharmaceuticals
 12. Bio synthesis of starch
- III. Write short essays on **any SIX** (5x6=30)
1. Role of lipids in paints & lubricants
 2. Important properties of enzymes
 3. Sequence of reactions in TCA cycle
 4. Fat constants and types of rancidity
 5. Glycolysis & alcoholic fermentation
 6. Factors affecting enzyme activity
 7. Structural levels of protein
 8. Classification of carbohydrates with examples
- IV. Write detailed essay on **any ONE** (10x1=10)
1. What are the characteristics of enzymes? Write a brief account on the classification of enzymes
 2. List out the steps in light reaction of photosynthesis and explain calvin cycle.