

(C) Answer in brief (any one)

(6M)

1. Write a short note on different interactions stabilize the tertiary structure of protein.
2. Write a note on different secondary structure present in protein.

Q III A). Answer the following questions (any four)

(8M)

1. What are diastereomers?
2. Give examples of enantiomers.
3. If number of asymmetric carbon is 3, how many isomers are possible?
4. What is a racemic mixture?
5. What is the constituent of chitin?
6. Give an example of reducing agent that is used for the synthesis of sugar alcohols.
7. What do you mean by tautomerization?
8. Give examples of pairs of epimers.

(B). Answer the following questions in brief. (Any two)

(6M)

1. Write down the structures of amylose and amylopectin.
2. Depict glycosidic bond formation in chitin.
3. What are homo- and hetero-, polysaccharides? Also give examples.
4. Give significance of starch and glycogen.

(C). Answer the following questions in detail (any one)

(6M)

1. Describe oxidation reactions to produce aldonic, aldaric, and uronic acids with respect to glucose.
2. Give an account of occurrence and structure of maltose, lactose and sucrose.

Q IV.1 (A) Explain the following (any one)

(2M)

1. Name any two Acidic and Basic buffers.
2. Name two Strong and two Weak bases.

1. (B) Answer of the following: (any three)

(3M)

1. In what range of pH will citrus fruits be found
2. What is a hydrogen bond? Explain its formation in water
3. Define molar concentration and Molarity
4. Write the dissociation constant of HCl.
5. Write equation of water Ionization.
6. How pH affects the biological reactions?