

B.Pharm/Sem-II (BSGS)
Sub:- Bio-Chem-I

21-4-16

Q.P. Code : 525102

(3½ Hours)

[Total Marks :70

- N.B. :** (1) All questions are **Compulsory**.
(2) Write all subquestion of a main question together.

1. (a) Draw structure of α - D-ribose by Fischer projection formula. 1
(b) Draw structure of sucrose by Haworth projection Formula. 1
(c) Differential reducing and non reducing sugar. 1
(d) Give names and draw structures of acidic amino acids with its three letter code. 2
(e) Draw structures of Cephalin. 1
(f) Explain effect of temperature on enzyme activity. 2
(g) Give mechanism of HMG COA reductase. 1
(h) Explain allosteric inhibition. 2
(i) Define enzyme induction and repression. 1
(j) Enlist water soluble vitamins. 1
(k) Name active form of Vitamin-D. 1
(l) Explain metabolism. 1
2. (a) Write note on secondary structure of Protein. 3
(b) Explain non competitive inhibition. 3
(c) Explain NADH₂ as an energy carrier. 3
(d) Enumerate salient Features of carbohydrate metabolism. 2
3. (a) Compare glycogen and starch in terms of their structures and Function. 3
(b) Explain monocyclic cascade system for enzyme regulation. 2
(c) Write note on Nicotinamide. 2
(d) Write short note on Vitamin-D or Vitamin-K. 3
(e) Write role of kidney in digestion and absorption of food. 1
4. (a) Classify amino acid based on their structure with examples of each class (structures not necessary) 3
(b) Write note on phospholipids. 3
(c) Write note on ascorbic acid. 3
(d) Explain thermodynamically favourable reaction. 2
5. (a) Define and classify carbohydrates with examples. 3
(b) Explain effect of substrate concentration on enzyme activity. 3
(c) Write note on Vitamin-B₇ or Vitamin -B₅. 3
(d) Explain laws of thermodynamics. 2

TURN OVER

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6. (a) Draw structure of Arachidonic acid . 2
(b) Give examples of drugs that inhibits enzymes and their clinical significance. 2
(i) Protease
(ii) Telomerase
(c) Explain product feedback inhibition mechanism in enzyme regulation. 2
(d) Write note on Vitamin-B₆ & Vitamin-B₁. 3
(e) Discuss the role of Tocopherol in body. 2
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