



PAQ-003-1142001

Seat No. _____

**M. Sc. (Botany) (Sem. II) (CBCS) (W.E.F. 2016)
Examination**

**August / September - 2020
BOT-207 : Biochemistry**

Faculty Code : 003

Subject Code : 1142001

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 Answer the following : (Any Seven) 7×2=14**
- (a) What is the difference between cellulose and chitin?
 - (b) Define the reducing and nonreducing disaccharide.
 - (c) Give physical properties of protein.
 - (d) Write down the energetic level of citric acid cycle.
 - (e) What is holoenzyme?
 - (f) What are coenzymes? How are coenzymes classified?
 - (g) What are the two key enzymes for ED Pathway?
 - (h) Write the three unique reactions in gluconeogenesis.
 - (i) List the names of high energy compounds.
 - (j) Write the importance of pentose phosphate pathway.
- 2 Answer the following : (Any Two) 2×7=14**
- (a) Describe different types of monosaccharide with suitable examples.
 - (b) Describe the types of lipids.
 - (c) Describe beta-oxidation of fatty acids.
- 3 Answer the following : 2×7=14**
- (a) Explain α -helix structure in detail.
 - (b) Briefly explain quaternary structure of protein with suitable example.

OR

- 3** Answer the following : **2×7=14**
- (a) Write note on classification of amino acid.
 - (b) Define K_m and Line weaver Burk plot. Describe their importance.
- 4** Answer the following : **2×7=14**
- (a) Discuss briefly the International classification of enzymes with suitable examples.
 - (b) Write a note on enzyme inhibition.
- 5** Write short notes on any **two** of the following : **2×7=14**
- (a) Regulation of TCA cycle
 - (b) Allosteric protein
 - (c) ED pathway
 - (d) Glycolysis
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