



PAQ-003-014201

Seat No. _____

**M. Sc. (Botany/Zoology/Microbiology) (Sem. II)
(CBCS) Examination**

August - 2020

207 : Biochemistry

(Old Course)

Faculty Code : 003

Subject Code : 014201

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

[Total Marks : 70

- 1** Answer the following very briefly : (Any Seven) **2×7=14**
- (a) What is triacylglycerol?
 - (b) Define epimeric sugars.
 - (c) Give functions of protein.
 - (d) Explain Primary structure of protein.
 - (e) Write the net reaction of TCA.
 - (f) Define homopolysaccharide with suitable example.
 - (g) Define peptide bond.
 - (h) Write the net reaction of Glycolysis.
 - (i) Explain secondary structure of protein with suitable example.
 - (j) Give the name of coenzymes.
- 2** Answer of the following : (Any Two) **7×2=14**
- (a) Explain structure and function of heteropolysaccharide.
 - (b) Write in detail beta oxidation of lipid.
 - (c) Explain α -helix structure in detail.
- 3** Answer the following : **7×2=14**
- (a) What is quaternary structure of protein? Explain in detail.
 - (b) Describe the regulation step of glycolysis.
- OR**
- (a) Write short notes on glyoxylate cycle.
 - (b) Describe the allosteric effectors and how they affect the enzymes.

4 Answer the following : 7×2=14

- (a) Describe types of fatty acid and their nomenclature.
- (b) Write in detail about Phospholipids and Sphingolipids as membrane lipids.

5 Answer the following : (Any Two) 7×2=14

- (a) Describe types and properties of monosaccharide.
 - (b) Explain Ramchandran plot.
 - (c) Explain Michaelis-Menten model.
 - (d) Give the outline of Pentose Phosphate pathway and state its importance.
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