



**DBW-003-1182001**

Seat No. \_\_\_\_\_

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

**July - 2022**

**ZOO-207 : Biochemistry**

**Faculty Code : 003**

**Subject Code : 1182001**

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

[Total Marks : 70

- 1** Answer the following very briefly (Any Seven) **2×7=14**
- (a) Write the physical properties of protein.
  - (b) What are aliphatic amino acids ? Give examples.
  - (c) How the allosteric enzymes are controlled ?
  - (d) Define Km value ? What is its significance ?
  - (e) Give the differences between chitin and cellulose.
  - (f) Give the net reaction for TCA.
  - (g) What are the factors influencing enzyme reaction ?
  - (h) What are coenzymes ? Give examples.
  - (i) Name the phases of glycolysis.
  - (j) What are the important products of the Pentose Phosphate Pathway ?
- 2** Answer of the following (Any Two) **7×2=14**
- (a) Describe the function of lipids.
  - (b) Explain the Homotropic effects.
  - (c) Describe starch and glycogen as storage polysaccharide.
- 3** Answer the following : **7×2=14**
- (a) Describe cellulose and chitin as structural polysaccharide.
  - (b) Write a brief note on the chemical properties of monosaccharides.

**OR**

- (a) What is quaternary structure of Protein ? Explain in detail.
- (b) What is the significance of TCA cycle.

4 Answer the following : 7×2=14

- (a) Explain Alpha-helix structure in detail.
- (b) What is Gluconeogenesis ? Write the step of pathway.

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

- (a) What are triacylglycerols ? Add a note on their properties.
- (b) What is primary structure of protein ? Explain in detail.
- (c) Define Km and Line weaver Burk plot. Describe their importance.
- (d) What is a Co-enzyme ? Discuss briefly the Co-enzymes involved in group transfer.

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