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

August / September - 2020

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)   Name few monosaccharides

   (b)   What is caramelisation?

   (c)   Difference between starch and glycogen

   (d)   What are aliphatic aminoacids? Give examples

   (e)   What is peptide bond?

   (f)   Give names of sulfur containing amino acids

   (g)   What is Michaelis-Menten theory?

   (h)   What are salient features of non- competitive inhibition?

   (j)   What are two phases of glycolysis?

   (j)   Write the net reaction for TCA

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

   (a)   Describe the function of lipids

   (b)   Write a brief note on the chemical properties of monosaccharides

   (c)   Describe starch and glycogen as storage polysaccharide

3   Answer the following :   7×2=14

   (a)   Describe cellulose and chitin as structural polysaccharide

   (b)   Explain the Homotropic Effectcs

OR

3 Answer the following :   **7×2=14**

(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) What is Gluconeogenesis? Write the step of pathway.

(b) What is a Co-enzyme? Discuss briefly the Co-enzymes involved in group transfer.

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) Explain α-helix structure in detail.

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