NCD-003-1182001 Seat No. _____

# M. Sc. (Zoology) (Sem. II) (CBCS) Examination

April / May - 2017

## Zool - 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 different types of 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?

(i) 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) Describe cellulose and chitin as structural polysaccharide.

(c) Describe starch and glycogen as storage polysaccharide.

**3** Answer the following : **7×2=14**

(a) Explain $\alpha$-helix structure in detail.

(b) What is the significance of TCA cycle.

**OR**

**3** Answer the following : **7×2=14**

(a) What is quaternary structure of Protein? Explain in detail.

(b) Explain the Homotropic Effectcs.

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) Write down the Energetic level of Citric acid cycle.

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