



DGG-003-018201 Seat No. \_\_\_\_\_

M. Sc. (Sem. II) (Botany/Zoology/Micro.) (CBCS)

Examination

April / May - 2015

Biochemistry : Paper - 207

(New Course)

Faculty Code : 003

Subject Code : 018201

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

[Total Marks : 70

Q.1. Answer the following (any seven) 2 x 7 = 14

- (a) What are reducing sugars?
- (b) Give definition of epimers, give example of epimeric pair.
- (c) Give names of cyclic amino acids.
- (d) What are acidic amino acids? Give examples.
- (e) What are the salient features of competitive inhibition?
- (f) What is cofactor? What is holoenzyme?
- (g) What is suicide inhibition? Give an example.
- (h) What is the effect of temperature and pH on enzyme velocity?
- (i) What are the two key enzymes of ED Pathway?
- (j) Write three rate limiting enzyme of glycolysis.

Q.2. Answer the following (any two) 2 x 7 = 14

- (a) What are homopolysaccharides? Describe with suitable examples
- (b) What are monosaccharides ? Describe various types of monosaccharides.
- (c) Describe and draw a titration curve of monoprotic acid.

Q.3. Answer the following: 2 x 7 = 14

- (a) Explain beta sheet as secondary structure of protein
- (b) What is tertiary structure of protein? Explain in detail.

**OR**

Q.3. Answer the following : 2 x 7 = 14

- (a) What is secondary structure of protein? Explain in detail.
- (b) Describe various function of protein

Q.4. Answer the following:

2 x 7 = 14

- (a) Describe briefly  $K_m$  and Lineweaver-Burk plot. Add a note on its significance
- (b) What is a Co-enzyme? Discuss briefly the Co-enzymes involved in group transfer

Q.5. Answer the following (*any two*)

2 x 7 = 14

- (a) What are anaplerotic reactions? Describe with suitable examples.
  - (b) Explain the Non Oxidative Phase of Pentose Phosphate Pathway.
  - (c) Discuss the importance and regulation of Citric acid cycle.
  - (d) Write short notes on Glyoxylate cycle.
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