



MBZ-003-1142001 Seat No. _____

M. Sc. (Botany) (Sem. II) (CBCS) Examination

April / May - 2018

BOT - 207 : Biochemistry

Faculty Code : 003

Subject Code : 1142001

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

[Total Marks : 70

- 1** Answer the following : (Any **Seven**) **14**
- (a) Name the smallest aldose and ketose sugars.
 - (b) Draw detailed structure of Lactose and Maltose.
 - (c) Explain structure and function of Pectin
 - (d) Give names of sulfur containing amino acids
 - (e) Explain primary structure of protein?
 - (f) What is the difference between first order and second order reactions?
 - (g) What is ping pong mechanism of enzyme reaction?
 - (h) What are two phases of glycolysis?
 - (i) Define gluconeogenesis.
 - (j) List the names of high energy compounds
- 2** Answer the following : (Any **Two**) **14**
- (a) Give classification of lipids -with examples.
 - (b) Describe Cellulose as structural polysaccharide
 - (c) Describe beta-oxidation of fatty acids with odd number of carbon atoms.
- 3** Answer the following : (Compulsory Questions) **14**
- (a) Explain Ramachandran plot in detail.
 - (b) Explain formation of primary 'structure of protein in' detail.

OR

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- 3** Answer the following : (Compulsory Questions) **14**
- (a) Distinguish between reversible and irreversible inhibition.
 - (b) What is suicide inhibition? What is its importance ?
- 4** Answer the following : **14**
- (a) Explain the concerted model of allosteric protein regulation.
 - (b) Explain the homotropic effects.
- 5** Answer the following : (Any **Two**) **14**
- (a) Give the outline of Pentose Phosphate pathway and state its importance.
 - (b) Define K_m and Line weaver Burk plot. Describe their importance.
 - (c) Explain β -sheet structure in detail.
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