



Seat No. _____

HN-003-1192001

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

April - 2023

Micro - 207 : Biochemistry

Faculty Code : 003

Subject Code : 1192001

Time : $2\frac{1}{2}$ Hours / Total Marks : 70

1 Answer the following : (any seven out of ten, each of 2 marks) 14

- (1) Write down physiological importance of lipid.
- (2) Define: Anomer.
- (3) What is Epimer?
- (4) What is multimeric protein?
- (5) Enlist physical properties of amino acids.
- (6) For the enzyme which follows Michaelis Menton kinetic, what happens when $V_o = \frac{1}{2} V_{\max}$?
- (7) Define Activation energy.
- (8) Enlist enzymes involved in TCA.
- (9) How is gluconeogenesis is differ from glycolysis?
- (10) Enlist the enzymes involved in citric acid cycle.

2 Answer the following : (any two out of three, each of 7 marks) 14

- (a) Write a note on disaccharides and its type.
- (b) Write an essay on polysaccharides.
- (c) Discuss in detail, compound lipid.

- 3** Answer the following : (each of 7 marks) **14**
- (a) Write note on secondary structure of protein.
 - (b) Write a note on Ramachandran plots.

OR

- 3** Answer the following : (each of 7 marks) **14**
- (a) Explain tertiary structure of protein.
 - (b) Write a note on globular protein.

- 4** Answer the following : (each of 7 marks) **14**
- (a) Write a note on nomenclature and classification of enzyme.
 - (b) Explain in detail principle and mechanisms of enzyme catalysis.

- 5** Answer the following : (any **two** out of four, each of 7 marks) **14**
- (a) Explain in the detail, Allosteric protein.
 - (b) Discuss in detail citric acid cycle.
 - (c) Explain in detail glyoxylate pathways.
 - (d) Describe in detail, pentose phosphate pathways.
