



Seat No. _____

HN-003-1142001

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

Examination

April - 2023

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) Give difference between starch and cellulose.
 - (b) Explain three important functions of carbohydrates with examples.
 - (c) Draw the triose sugar in L- and D- form.
 - (d) Give names and structure of sulfur containing amino acids.
 - (e) Draw structure of aromatic aminoacids.
 - (f) Give physical properties of protein.
 - (g) What is Km value? Give its significance.
 - (h) What is feed back mechanism?
 - (i) Write the net reaction for TCA.
 - (j) Write the reaction catalyzed by transketolase.
- 2** Answer the following : (any **two**) **14**
- (a) Explain glycosaminoglycan with example.
 - (b) Classify carbohydrates in detail with an example.
 - (c) Classify lipids in detail with an example.

3 Answer the following : (compulsory questions) **14**

(a) Explain quaternary structure of protein in detail with examples.

(b) Explain Ramachandran plot in detail.

OR

3 Answer the following : (compulsory questions) **14**

(a) Explain secondary structures of protein in detail.

(b) Explain titration curve in detail.

4 Answer the following : **14**

(a) Explain different types of enzyme inhibitions in detail.

(b) Explain Michaelis-Menten equation in detail.

5 Answer the following : (any **two**) **14**

(a) Describe the regulatory steps of glycolysis pathway.

(b) Write short note on ED pathway.

(c) Give importance of Pentose Phosphate pathway.
