



HEG-2

Seat No. _____

M. Sc. (Biotech.) (Sem. I) (CBCS) Examination

November / December – 2017

BT - 102 : Enzyme Technology

(New Course)

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

[Total Marks : 70

1 Answer the following : (Any **Seven** out of Ten, each of **14** 02 marks)

- (1) Enlist the classes enzymes,
- (2) What is significance of enzyme in living organisms?
- (3) Give statement of Michaelis-Menten equation?
- (4) Define exergonic reactions.
- (5) Why energy requiring reactions can occur in biological system?
- (6) What is an active site of an enzyme?
- (7) Enlist different supporting matrix for immobilization.
- (8) What are abzymes?
- (9) Which enzyme is widely used to clarify fruit juice?
- (10) What is competitive inhibition?

2 Answer the following : (Any **two** out of Three, each of **14** 07 marks)

- (a) What is Km value? What does it indicate? Add a note on its significance.
- (b) Describe briefly the International classification of enzymes with suitable examples.
- (c) What are the salient features of enzyme kinetics? Add a note on factors influencing enzyme reaction.

- 3** Answer the following : (each of 07 marks) **14**
- (a) What is the difference between co-enzyme and co-factor?
 - (b) Discuss briefly Acid Base catalysis & Covalent Catalysis

OR

- 3** Answer the following : (each of 07 marks) **14**
- (a) Discuss the allosteric inhibition with suitable example.
 - (b) Write a short note on enzyme immobilization.
- 4** Answer the following : (each of 07 marks) **14**
- (a) What are the uses of enzymes in agriculture field?
 - (b) Discuss protein metabolizing enzymes in industries with suitable example.
- 5** Answer the following : (Any two out of four, each of 07 marks) **14**
- (a) Write a note on non aqueous enzyme technology
 - (b) What is Biotransformation? How Biotransformation occurs through enzyme and microbes?
 - (c) Write a note on abzyme and isozyme.
 - (d) Discuss covalent modification with suitable example.