Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc - Honours (Microbiology) (Sem.–5) ENZYME TECHNOLOGY Subject Code : BSMB509-20 M.Code : 92515 Date of Examination : 21-12-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

- 1. Write briefly :
 - a) Discuss the apoenzyme.
 - b) Define activators.
 - c) Define enzyme specificity.
 - d) What do you mean by enzyme inhibitors.
 - e) What is the significance of Km.
 - f) Define feedback inhibition.
 - g) Discuss the actual meaning of competitive inhibition.
 - h) What are isoenzymes.
 - i) Enlist enzyme-based products available in the market.
 - j) Mention the meaning of the active site.

SECTION-B

- 2. Mention the general features of enzymes.
- 3. Elaborate on the mechanism of enzyme action with a justified diagram.
- 4. Describe the derivation of Michele's mentioned equation for substrate reaction.
- 5. Differentiate between competitive and non-competitive inhibition.
- 6. Discuss applications of microbial enzymes in the industrial process.

SECTION-C

- 7. Discuss in detail the factors affecting substrate concentration, pH, and temperature.
- 8. Mention in detail about :
 - a) Line weaver burk plot
 - b) Enzyme repression induction operon model
- 9. What do you know about enzyme technology and its industrial applications?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.