Unit IV

7. Write an essay on industrial uses of enzymes.

20

8. (a) Explain the working principle of biosensors and give its applications. **10**

(b) Discuss the medical applications of enzymes. **10**

CC332

M.Sc. EXAMINATION, May 2019

(Third Semester)

(B. Scheme) (Re-appear)

BIO-TECHNOLOGY

BT603MS

Enzymology and Enzyme Technology-I

Time : 3 *Hours*]   [*Maximum Marks :* 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) Give a systematic classification of enzymes as per the international union of Biochemistry and Molecular Biology. **10**

   (b) Explain the following :

   (i) Monomeric and oligomeric enzymes

   (ii) Holoenzyme and Apoenzyme. **5×2=10**

2. (a) Give the units of enzyme activity. **5**

   (b) What do you understand by specific activity of enzymes ? **5**

   (c) Give a brief account of ribozymes and abzymes. **10**

Unit II

3. (a) Give the significance of Michaelis-Menton euquation, V_{max} and K_m. **10**

   (b) Explain Lineweaver Burk Plot and give its advantages and limitations. **10**

4. Write short notes on the following :

   (a) Types of enzyme inhibition

   (b) Bisubstrate reactions. **10×2=20**

Unit III

5. (a) Explain the methodology for isolation and purification of enzymes from a plant source. **10**

   (b) Discuss the criteria of enzyme purify. **5**

   (c) How the molecular weight of an enzyme is determined ? **5**

6. Discuss in brief the following (any *two*) :

   (a) Protein engineering

   (b) Enzyme reactors

   (c) Enzyme immobilization. **10×2=20**