

M.Sc.(Microbiology) (NEP Pattern) Semester-I  
**NEP-72 / 01MSCMB02 - Paper-II : Enzymology and Techniques**

P. Pages : 1

Time : Three Hours



**GUG/W/23/15126**

Max. Marks : 80

- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw well labeled diagrams wherever necessary.

**1. What is Inhibition? Describe in detail their type and its application? 16**

**OR**

- i) Derive Mm equation? 8
- ii) Describe in detail classification of enzymes? 8

**2. Describe active site determination and mechanism of ribonuclease enzyme? 16**

**OR**

- i) Give the account of metal ion cofactors? 8
- ii) Discuss in detail acid-base catalysis? 8

**3. Describe in details feed-back inhibition of enzyme? 16**

**OR**

- i) Give the account of marker enzymes? 8
- ii) Discuss in detail multienzyme complex with mechanism? 8

**4. Describe in detail methods of purification and fractionation? 16**

**OR**

- i) Discuss in detail co-operative ligand binding of MWC? 8
- ii) Give the account of immobilized enzymes? 8

**5. Write in short all compulsory?**

- i) Discuss in detail evaluation of kinetic parameters? 4
- ii) Discuss concept of active site? 4
- iii) Discuss in detail Allosterism and its kinetic analysis? 4
- iv) Discuss enzyme biosensor? 4

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