M.Sc. (Microbiology) First Semester Old

MB1-T003 - Enzymology & Techniques (ET) Paper-III

P. Pages : 1 **GUG/W/18/2188**

Time : Three Hours * 1 6 8 6 * Max. Marks : 80

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1. Explain in detail about Michaelis-Menten equation and give its transformation. **16**

OR

Explain Kinetics of enzyme inhibition. **16**

2. Explain catalytic mechanism of enzyme ribonuclease and Lysozyme. **16**

OR

a) Write a note on Active site determination. **8**

b) Explain proximity and orientation effects in catalytic mechanism of enzyme. **8**

3. Explain kinetic analysis of allosteric enzymes and its role in regulation of enzyme activity. **16**

OR

Explain the terms constitutive and inducible enzymes and write the regulation mechanism. **16**

4. Explain the term enzyme biosensors and write its industrial applications. **16**

OR

a) Explain the significance of Immobilized enzymes. **8**

b) Discuss Various methods of purification of enzymes. **8**

5. Write a note on-

a) Kinetics of bisubstrate reaction. **4**

b) Preferential binding in catalytic mechanism. **4**

c) Multienzyme complex. **4**

d) Protein engineering. **4**

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