

M.Sc.(Biotechnology) (CBCS Pattern) Semester - II
PSBIT-105 - Paper-I : Enzymology

P. Pages : 1

Time : Three Hours



GUG/S/23/11191

Max. Marks : 80

Notes : 1. All questions are compulsory and carries equal marks.

1. Discuss in detail about the effect of pH, Temperature, Substrate concentration and enzyme concentration on enzyme activity. **16**

OR

- a) Discuss Lock and key model and Induced fit model for enzyme activity. **8**
b) Give the commercial application of enzymes in different industries. **8**

2. What are multienzyme complexes. Discuss with example. **16**

OR

- a) Write a note on Kinetics of Enzyme inhibition? **8**
b) What is Enzyme Inhibition? Explain reversible inhibition in details? **8**

3. Discuss the method of isolation and purification of enzyme with suitable example. **16**

OR

- a) Describe Nucleophilic and electrophilic catalysis. **8**
b) What are enzymes? Explain in detail. **8**

4. What are allosteric enzymes. Give the example of allosteric regulation of enzyme activity. **16**

OR

- a) Explain chemical modification of Enzyme regulation? **8**
b) Discuss Ping-Pong mechanism for enzyme regulation. **8**

5. Write short note on:

- a) Lineweaver Burk plot. **4**
b) Difference between competitive and non-competitive inhibition. **4**
c) Discuss the process of enzyme assay. **4**
d) Lysozymes. **4**
