Q. P. Code: 27527

(3 Hours) [Total Marks: 80]

N.B. 1) Q. No. **1** is **compulsory.**

2) Attempt any **3** questions from Q. No. **2** to **6**.

3) **All** questions carry **equal** marks.

Q1. Write short notes on (any **4**):- [20]

a) Models for bisubstrate E-S interaction.

b) Enzyme structure.

c) Radioimmunoassay.

d) Application of enzymes in therapeutic industry.

e) Isoelectric focussing

Q2. a) Explain how competitive inhibitor affects enzyme activity. Derive the related equation. [10]

b) Explain any two methods of enzyme immobilization in detail. [10]

Q3. a) Write a note on: Affinity chromatography. [10]

b) Write a note on activation energy and effect of enzymes on it. [10]

Q4. a) Explain the criteria to assess enzyme purity. [10]

b) Explain any two methods of genetic modification of enzymes. [10]

Q5. a) Explain various designs of enzyme reactors. [10]

b) Write a note on metal-ion catalysis. [10]

Q6. a) Explain enzyme applications in leather industry. [10]

b) Explain the steps involved in extraction of soluble enzymes. [10]
