

Post graduation (M.D. - Biochemistry) University Theory Examination
Government Medical College , Bhavnagar
Paper-1 (General and Clinical Biochemistry - Enzymology and Biostatistics)

Date : 22/09/2025

Marks : 100

Q-1 Write detailed notes on the following. (20 Marks)

- Write a salvage pathway of purine and its disorder.
- Explain biochemical reasons for different types of hyperuricemia and its management.

Q-2 Write detailed notes on the following. (20 Marks)

- Write classification of the enzyme with examples.
- Mechanism of Enzyme action.
- Explain regulation of the enzyme through drugs and allosteric modifiers with five examples.

Q-3 Write short notes on the following. (20 Marks)

1. Brief view of fates of the protein
2. Explain principle, advantages and disadvantages of quantitative estimation of glucose through Ion Selective Electrode, GOD-POD method and with Glucometer.

Q-4 Write short notes on the following. (40 Marks)

1. Structural - functional relationship of protein with example of long acting (Glargine) insulin
2. Validation vs Verification
3. Metabolic changes under skeletal muscle tissue during exercise.
4. Technical requirement to maintain integrity of the sample between sample collection to analysis as per clause 7.2.5 and 7.2.7.3 of ISO 15189:2022
5. Criteria to be followed for MCQ drafting.
6. Lysozyme and its significance with medical diseases.
7. Principle, type and use of CLIA
8. Explain any five different mechanisms of chemotherapeutic drugs.