CODE : 26751

Post graduation (M.D. - Biochemistry) (7.8.2026)

Paper-1 (General and Clinical Biochemistry - Enzymology and Biostatics )

Date : 07/08/2026

Marks : 100

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

- Principle and application of Tandem Mass Spectrometry

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

- Metabolic and endocrine changes during fasting condition and during exercise

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

1. Explain regulation of the enzyme through drugs and allosteric modifiers with five examples.
2. Define HIL indexation and it's significant in clinical biochemistry laboratory

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

1. Explain mechanism of " Development of resistance in long term use of methotrexate"
2. Technic, advantage and disadvantage of Problem based learning
3. Requirement as per ISO 15189:2022 for POCT.
4. EPA and DHA – biochemical basis of their role in health
5. Write principle of the SDS-PAGE electrophoresis.
6. Validation vs Verification
7. Write two enzymes with its therapeutic use with its mechanism of action.
8. Component of the fully automated biochemistry analyzer and it's significant