Roll No. | | | | | | | | | | | | **Total No. of Pages : 01**

Total No. of Questions : 08

M.Sc. MLS (Biochemistry) (Sem.–1)

ANALYTICAL AND PHYSICAL BIOCHEMISTRY

Subject Code : MMLT-102-18

M.Code : 75410

Date of Examination: 12-01-2023

Time : 3 Hrs. **Max. Marks : 75**

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries FIFTEEN marks.**

1. What do you mean by electrolyte? Discuss the Henderson-Hasselbach equation in detail along with its significance.

2. What is buffering capacity? Explain various physiological buffers, metabolic acidosis and alkalosis in detail.

3. What is dialysis? Describe in detail the transportation process by membrane proteins across cell membrane.

4. What is biological oxidation? Explain various laws of thermodynamics along with their biological significance.

5. Define viscosity and surface tension. Give their biomedical importance.

6. What is high energy linkage? Discuss transport of active and passive molecules and involvement of ATP in biological systems.

7. What are radio-immunoassays? Discuss their applications in clinical biochemistry.

8. **Write in brief about :**

   a) ELISA

   b) Heterogeneous enzyme immunoassays

   c) Radioactive energy attenuation assays

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.