## M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION MAY - JUNE 2025

## **BIOCHEMISTRY**

Paper - I [Physiology]

[Max. Marks : 75] [Time : 3:00 Hrs.] [Min. Marks : 26]

**Note:** Candidate should write his/her Roll Number at the prescribed space on the question paper. Student should not write anything on question paper.

Attempt all five questions. Each question carries an internal choice.

Each question carries 15 marks.

**Q. 1** Describe in detail the composition and physiological functions of plasma and different types of blood corpuscles.

OR

Discuss the role of clotting factors in the process of blood coagulation.

Q. 2 Explain in detail the composition and mechanism of Urine formation.

OR

Illustrate the mechanisms involved in the formation of dilute and concentrated urine.

Q. 3 Define metabolic and respiratory alkalosis. Explain underlying causes, consequences and compensatory mechanisms.

OR

Write the mechanism of respiratory gases transport in body and discuss the factors affecting transport of oxygen.

Q. 4 Describe the structure and functions of skeletal, smooth and cardiac muscle.

OR

Explain the sliding filament mechanism of muscle contraction.

- Q. 5 Write a note on -
- i) Action Potential
- ii) Types of Neurotransmitters.

OR

Explain the following - i) Neuromuscular Junction.

ii) Reflex action.

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