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Name.....

Reg. No.....

**FIRST SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, NOVEMBER 2025**

(CBCSS)

Zoology

ZOL 1C 01—BIOCHEMISTRY AND CYTOGENETICS

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Answer any *four* questions. Each question carries 2 weightage :

- 1 Imino acids.
- 2 Fate of pyruvic acid.
- 3 Prostaglandins.
- 4 Free energy concept.
- 5 Tocopherol.
- 6 Difference between Euchromatin and heterochromatin.
- 7 Caspases.

(4 × 2 = 8 weightage)

II. Answer any *four* questions. Each question carries 3 weightage :

- 8 Ramachandran plot.
- 9 Structural polysaccharides.
- 10 HMP pathway and its significance.
- 11 Enzyme inhibition.
- 12 Biosynthesis of cholesterol.
- 13 Structural changes of chromosomes.
- 14 Secretory functions of endoplasmic reticulum.

(4 × 3 = 12 weightage)

Turn over

III. Answer any *two* questions. Each question carries 5 weightage :

- 15 Discuss on the classification and biological importance of phospholipids.
- 16 Explain the stepwise reaction involved in the purine biosynthesis.
- 17 Explain intercellular communication with suitable examples.
- 18 Discuss on the G- protein linked receptors and their signaling via cAMP and IP3.

(2 × 5 = 10 weightage)