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(Pages : 2)

Name.....

Reg. No.....

**FIRST SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, NOVEMBER 2024**

(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 Epimer.
- 2 Disulphide bond.
- 3 *t*-RNA.
- 4 Sphingomyelins.
- 5 Transamination.
- 6 Cytoskeleton.
- 7 Pseudo allele.

(4 × 2 = 8 weightage)

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

- 8 de-Novo pathway for Pyrimidine Biosynthesis.
- 9 Mechanism of oxidative phosphorylation.
- 10 Michaelis- Menton equation - Derivation.
- 11 Enzymes and reactions involved in TCA cycle.
- 12 Watson- Crick model of DNA.

Turn over

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13 Structural organization of ribosomes.

14 Gap junction and Tight junction.

(4 × 3 = 12 weightage)

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

15 Explain the stepwise reaction involved in fatty acid biosynthesis. Add a note on its regulation.

16 Briefly explain the structure and functions of water soluble vitamins.

17 Explain extra chromosomal inheritance. Add a note on interrupted genes.

18 Discuss on Extracellular and Intracellular apoptosis. Add a note on apoptosis in *Drosophila*.

(2 × 5 = 10 weightage)