

**D 93448**

**(Pages : 2)**

**Name.....**

**Reg. No.....**

**FIRST SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, NOVEMBER 2020**

**(CBCSS)**

**Zoology**

**ZOL 1C 01—BIO-CHEMISTRY AND CYTOGENETICS**

**(2019 Admissions)**

**Time : Three Hours**

**Maximum : 30 Weightage**

**General Instructions**

1. *In cases where choices are provided, students can attend **all** questions in each section.*
2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
3. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

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

- 1 What is optical isomerism ?
- 2 What is the significance of Ramachandran plot ?
- 3 Write a note on multiple alleles.
- 4 What is gluconeogenesis ?
- 5 Write the structure of ATP ?
- 6 What are cadherins ?
- 7 What is heterochromatin ?

(4 × 2 = 8 weightage)

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

- 8 Describe the structure of tRNA.
- 9 Briefly describe the biological role of lipids.

**Turn over**

10. Describe various factors affecting enzyme action.
- 11 Briefly describe oxidative phosphorylation.
- 12 Describe the structure and types of ribosomes.
- 13 Briefly describe the concept of interrupted genes.
- 14 What is apoptosis ? How is apoptosis regulated ?

(4 × 3 = 12 weightage)

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

- 15 Write an essay on the secondary structure of proteins.
- 16 Describe the citric acid cycle.
- 17 Describe different forms of polysaccharides.
- 18 Describe different forms of chromosomal mutations.

(2 × 5 = 10 weightage)