

Roll No.

DD-787

**M. Sc. (Fourth Semester)
EXAMINATION, 2020**

ZOOLOGY

(Group—II)

Paper Second

(Cellular Organization and Molecular Organization)

Time : Three Hours

Maximum Marks : 80

Note : Attempt all the *five* questions. First question is based on all four Units. All questions carry equal marks.

1. Attempt any *two* questions of the following :
 - (a) Give a brief account on cell cycle.
 - (b) Describe the structure of Nucleolus.
 - (c) Write in brief the difference between normal cells and cancer cells.
 - (d) How “Oncogenes” are responsible for certain types of cancers ? Explain briefly.

Unit—I

2. Give general organization and characteristics of HIV.

Or

Describe briefly the cell-cycle control in *Xenopus*.

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Unit—II

3. What do you understand by Intracellular digestion ? Explain.

Or

Write an essay on synthesis and targetting of Mitochondrial proteins.

Unit—III

4. How does DNA sequences play an important role in different genome complexity ?

Or

Write short notes on the following :

- (a) Biochemical changes in cancer cells
- (b) Cytoskeleton changes in cancer cells

Unit—IV

5. Write an essay on ‘Tumour Supressor Genes’.

Or

How Receptor-Ligand interaction important in cell-signalling pathways ? Explain.