



K21P 0562

Reg. No. : .....

Name : .....

I Semester M.Sc. Degree (CBSS – Reg./Suppl. (Including Mercy  
Chance) /Imp.) Examination, October 2020  
(2014 Admission onwards)

ZOOLOGY

ZOO1C01 : CELL BIOLOGY AND GENETICS



Time : 3 Hours

Max. Marks : 60

PART- A

Cell Biology

I. Answer any **one** of the following.

(1×12=12)

- 1) Describe cellular and molecular mechanism of ageing.
- 2) Give an account of molecular organization of chromatin and chromosome.

II. Answer any **one** of the following.

(1×8=8)

- 3) Explain the molecular mechanisms involved in the regulation of mitosis.
- 4) Give an account of site of synthesis of organelle and membrane proteins.

III. Write short notes on any **two** of the following :

(2×5=10)

- 5) Passive diffusion
- 6) Cell recognition
- 7) Nucleosome

P.T.O.



## PART- B

## Genetics

IV. Answer any **one** of the following. (1×12=12)

- 8) Explain the molecular mechanisms associated with the recombination of DNA.
- 9) Write an essay on transposable genetic elements.

V. Answer any **one** of the following. (1×8=8)

- 10) Discuss the mechanism of genetic exchange in bacteria.
- 11) Explain oncogenes and their mechanism of action leading to cancer.

VI. Write short notes on any **two** of the following: (2×5=10)

- 12) Rec - A protein
- 13) Lambda virus
- 14) Gene conversion

(1×8=8)

(2×5=10)