



K21P 0744

Reg. No. :

Name :

II Semester M.Sc. Degree (CBSS – Reg./Suppl. (Including Mercy Chance)/Imp.)
Examination, April 2021
(2014 Admission Onwards)
BOTANY
BOT 2C08 : Cell and Molecular Biology

Time : 3 Hours

Max. Marks : 60

I. Answer **any two** of the following : (2×8=16)

1) Write on the mechanism of cell communication in plants.

OR

2) Explain chromosome banding and its significance.

3) Describe the mechanism of aging.

OR

4) Write on the organisation of eukaryotic and prokaryotic genomes.

II. Answer **any two** of the following :(2×6=12)

5) a) Centromere

1

b) Centromeric and telomeric sequences

2

c) Organisation of chromatin.

3

6) a) Mitogens

1

b) Cell cycle check points

2

c) Cytokinesis.

3

7) a) Gene expression

1

b) RNA binding proteins

2

c) Nucleo-cytoplasmic interactions.

3

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III. Answer **any six** of the following :(6×3=18)

8) Mitochondrial genome

9) Cyclin dependant kinases

10) Trisomy and tetrasomy in humans

11) Cell-cell adhesions

12) Tumour initiators and tumour promoters

13) Plasmid replication

14) Synaptonemal complex

15) Transcription activators and repressors.

IV. Answer **any seven** of the following :(7×2=14)

16) Nuclear receptors

17) E2F proteins

18) Turner syndrome

19) Integrins

20) Tumour suppressor genes

21) Pseudogene

22) Retrotransposanes

23) DNA replication disorders

24) Carcinogens

25) Inhibitors of apoptosis.