



K16P 0396

Reg. No. :

Name :

**Second Semester M.Sc. Degree (Regular/Supplementary/Improvement)
Examination, March 2016
BOTANY
(2014 Admn. Onwards)
BOT 2C 08 : Cell and Molecular Biology**

Time : 3 Hours

Max. Marks : 60

I. Answer **any two** of the following :

(2×8=16)

- 1) Give an account on the structure and organization of chromatin.
OR
- 2) Explain in detail the cell cycle and its control mechanism.
- 3) Describe in detail the transcription and translation in Prokaryotes and Eukaryotes.

OR

- 4) Write an account on mobile genetic elements.

II. Answer **any two** of the following :

(2×6=12)

- 5) a) Nuclear import and export receptors.
b) Mitochondrial codons.
c) Control of cyclin proteolysis by APC.
- 6) a) Karyotype and Idiogram.
b) Trisomy and Tetrasomy in humans.
c) Mechanism of cell communication in plants.
- 7) a) Different classes of DNA.
b) Gene expression.
c) Transposons and Mutation.

P.T.O.



III. Answer any six of the following :

(6×3=18)

- 8) Cryptic satellites.
- 9) Cystic fibrosis.
- 10) Cell death.
- 11) Tumor promoters.
- 12) Types of RNA.
- 13) Gene silencing.
- 14) Protein coding genes.
- 15) Eukaryotic transpositions.

IV. Answer any seven of the following :

(7×2=14)

- 16) Repetitive DNA.
- 17) Somatic reduction.
- 18) Signal patches.
- 19) IAPs.
- 20) Metastasis.
- 21) Cot values.
- 22) Transposones.
- 23) mi RNA.
- 24) Mu phage elements.
- 25) Epigenetic regulation.