



K20P 0305

Reg. No. :

Name :

II Semester M.Sc. Degree (CBSS – Reg./Suppl./Imp.)

Examination, April 2020

(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) Explain cell cycle and its regulation.

OR

2) Describe DNA replication in eukaryotes.

3) Discuss epigenetic control of Cancer.

OR

4) Write an account on the Operon concept.

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

(2×6=12)

5) a) Mitochondrial genome.

2

b) Mitochondrial codons.

2

c) Introns.

2

6) a) Cell-cell adhesions.

3

b) Plasmodesmata.

2

c) Cadherins.

1

7) a) Transposons.

1

b) Mechanism of action.

3

c) Transposons and evolution.

2

P.T.O.



III. Answer **any six** of the following :

(6×3=18)

- 8) Packaging of DNA into chromosomes.
- 9) Motor proteins.
- 10) Karyotype and idiogram.
- 11) Endomitosis and somatic reduction.
- 12) Programmed cell death.
- 13) Genetic basis of cancer.
- 14) Retinoblastoma and E2 proteins.
- 15) Robertsonian translocations.

IV. Answer **any seven** of the following :

(7×2=14)

- 16) Aging.
 - 17) Down syndrome.
 - 18) CDK inhibitory proteins.
 - 19) Selectins.
 - 20) NPC proteins.
 - 21) Mi RNA.
 - 22) F and Alu elements.
 - 23) shrsNA.
 - 24) p53 genes.
 - 25) Big gene.
 - 26) Stem cell.
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