

23BBO501
UG PROGRAM (4 YEARS HONOURS) WITH SINGLE MAJOR
AT THE END OF FIFTH SEMESTER
BOTANY- CELL BIOLOGY AND GENETICS (B.Sc. HONOURS-MAJOR)
(w.e.f. Admitted Batch 2023-24)

Time: 3 Hours

Maximum: 70 Marks

Section-A

5x4=20

Answer any Five Questions.

1. Differentiate between prokaryotic and eukaryotic cell.
2. Differentiate between Heterochromatin and Euchromatin.
3. Mechanism & significance of Crossing over.
4. Salient features of Genetic code.
5. Functions of a gene.
6. Cell theory.
7. Differentiate between DNA & RNA.
8. Incomplete Dominance.

Section- B

5x10=50

Answer All Questions.

9. a) Describe the structure and functions of cell membrane.

(Or)

b) Differentiate the Plant cell and Animal cell.

10. a) Give an account on structural chromosomal aberrations.

(Or)

b) Describe the structure of Chromosome & Organization of DNA in Chromosome.

11. a) Give a brief account on Gene interactions in plants.

(Or)

b) Explain Coupling, Repulsion & types of Linkage with examples.

12. a) Give a brief account on Lac operon.

(Or)

b) Give a brief account on semi conservative replication of DNA.

13. a) Give a brief account on Hardy-Weinberg law.

(Or)

b) Give a brief account on Classical vs Molecular concepts of gene.