PG–CN–1045 MBOTN–21

P.G. DEGREE EXAMINATION — DECEMBER 2023

Botany

Second Year

CELL AND MOLECULAR BIOLOGY

Time : 3 hours Maximum marks : 70

SECTION A — ($5 \times 5 = 25$ marks)

Answer any FIVE questions each in 300 words.

1. Explain the Comparison of Prokaryotic and Eukaryotic Cell.
2. Write note on Bacterial Cell Structure with diagram.
3. Write short note on Mitochondria with diagram.
4. "DNA is the genetic material" – discuss.
5. Write note on Transcription in Eukaryotes.
6. Give short notes on Meiosis stages.

7. Write brief account on relationship between genes and proteins.

8. Define Codons. Explain types of Codons.

SECTION B — ($3 \times 15 = 45$ marks)

Answer any THREE questions each in 1000 words.

9. Give detailed account on Cell Cycle.

10. Shortly explain the following.
    (a) Ribosome
    (b) Golgi body
    (c) Endoplasmic Reticulum
    (d) Lysosomes
    (e) Vacuoles.

11. Give an account on Chromosome.

12. Describe the detail account on the Mitosis Cell Division.

13. Explain the Translation of Prokaryotes.

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PG–CN–1049 MBOTN–25

P.G. DEGREE EXAMINATION — DECEMBER, 2023.

Botany

Second Year

BIOCHEMISTRY, PLANT BIOTECHNOLOGY AND BIOINFORMATICS

Time : 3 hours Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions out of Eight questions in 300 words.

All questions carry equal marks.

1. Write short notes on polysaccrides.

2. Write short notes on Amino acids.

3. Write short notes on factors affecting enzymes.

4. Describe about the procedure of callus culture.

5. Write short notes on secondary database.

6. Give an account on scope of genetic engineering.

7. Write short notes on Bioinformatics in drug discovery.

8. Write short notes on isomerism.

PART B — ($3 \times 15 = 45$ marks)

Answer any THREE questions out of Five questions in 1000 words.

All questions carry equal marks.

9. Describe in detail about bonding.

10. Describe in detail about the structure of lipid.

11. Describe the mechanism of enzyme action.

12. Describe in detail about the method of hybridization.

13. Describe is detail about biological database.

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