

23P215

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Name:

Reg.No:

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2024

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19P ZOL2 C05 - MOLECULAR BIOLOGY AND CYTOGENETICS

(Zoology)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

Part-A

Answer any *four* questions. Each question carries 2 weightage.

1. Explain enzymology of DNA replication
2. Explain transcription activators
3. Explain biogenesis of ribosome in eukaryotes
4. Define miRNA
5. Define transposones in Maize
6. Explain the structure of prokaryotic chromosome.
7. Explain the mapping of genes through interrupted mating technique.

(4 × 2 = 8 Weightage)

Part-B

Answer any *four* questions. Each question carries 3 weightage.

8. Explain the mode of action of any four DNA replication inhibitors.
9. Describe the role of enzymes in safeguard systems of DNA.
10. Give a brief account of the characteristics of genetic code.
11. Compare simple and complex multigene family.
12. Describe Mu phages.
13. Explain about the role of Rec A protein in genetic recombination.
14. Describe tumorigenesis and explain the types of cancer growth.

(4 × 3 = 12 Weightage)

Part-C

Answer any *two* questions. Each question carries 5 weightage.

15. Describe protein folding and biochemical modifications on Post -translation.
16. Explain about Eukaryotic genome.
17. Discuss the general aspects of Cancer.
18. Give a detailed account of various abnormalities of chromosome structure.

(2 × 5 = 10 Weightage)
