

18P220

(Pages: 2)

Name:.....

Reg. No:.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2019

(Regular/Supplementary/Improvement)

(CUCSS - PG)

CC17P ZO2 C05 - MOLECULAR BIOLOGY AND CYTOGENETICS

(Zoology)

(2017 Admission onwards)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* questions. Each question carries 1 weightage.

1. Okazaki fragments.
2. Transcription activators.
3. Role of mi RNA in regulation of gene expression.
4. Reciprocal translocation.
5. IS elements.
6. Special features of interrupted genes.
7. Lytic cycle.
8. Retroviruses.
9. Sexduction.
10. Basic features of tryptophan.
11. Nondisjunction.
12. Micro deletion.
13. Hyperplasia.
14. Regulation of telomere length.

(14 x 1 = 14 Weightage)

II. Answer any *seven* questions. Each question carries 2 weightage.

15. Write about Genetic rearrangements in progenitor cells.
16. Role of Rec A protein in genetic recombination.
17. Concept of an evolutionary clock in globin gene.
18. Regulation of gene expression in arabinose operon.
19. Special features of eukaryotic genome.
20. Write about P elements in Drosophila.
21. Role of chaperones in Post - Translational modification of protein folding.
22. Biogenesis of ribosome in eukaryotes.
23. Morphological and ultrastructural properties of cancer cells.
24. Cell cycle regulation in cancer

(7 x 2 = 14 Weightage)

III. Answer any *two* questions. Each question carries 4 weightage.

25. Write an essay on immunotherapy and gene therapy in cancer.

26. Write an essay on translation in eukaryotes.

27. Explain the role of enzymes in the Safeguard systems of DNA.

28. Write an account on Characteristic features of RNA polymerases of phages, prokaryotes and eukaryotes and their functions.

(2 x 4 = 8 Weightage)
