

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. What is Central dogma? Explain.
(or)
11.b. Illustrate the higher order chromatin structure.
- 12.a. Outline the mechanism of rolling circle model of DNA replication in bacteria.
(or)
12.b. Write short notes on DNA excision repair mechanism.
- 13.a. Explain Reverse Transcription with illustration.
(or)
13.b. Discuss the inhibitors of Transcription.
- 14.a. Mention the general features of Genetic code.
(or)
14.b. Explain Post translational modification of proteins.
15. a. Write short notes on Housekeeping genes and Inducible genes.
(or)
15.b. Give an account on homologous and site specific recombination.

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Discuss in detail on Mitochondrial and Chloroplast genomes.
(or)
16.b. Elaborate the structure and function of Histones and Nucleosomes.
- 17.a. Explain the various Proteins and Enzymes involved in DNA Replication.
(or)
17.b. Examine the mechanism of DNA Replication.
- 18.a. Illustrate the important events in Initiation, Elongation and Termination of Transcription process.
(or)
18.b. Explain the post- transcriptional processing of mRNA, rRNA and tRNA.
- 19.a. Discuss in detail on different types of Mutations.
(or)
19.b. Explain the mechanism of protein biosynthesis.
- 20.a. Elaborate the regulation of expression with lac operon model.
(or)
20.b. Write in detail on Transposons and Transposition events.
