

Part B

5 x 4 = 20

Answer all the questions

Each answer should not exceed 200 words or one page

11. (a). Write a note on the levels of protein structure with suitable examples.
(OR)
(b). Explain the structure - function relationship of different model proteins.
12. (a). List out the types of Secondary messengers and its signaling events.
(OR)
(b). Define enzyme inhibition. Explain in detail the different types of inhibitions with suitable examples.
13. (a). Explain the Law of thermodynamics and its application.
(OR)
(b). Explain about the types of reaction (catabolic or anabolic) with examples.
14. (a). Write a note on Cot-curve analysis.
(OR)
(b). Compare and contrast on heterochromatin and euchromatin.
15. (a). Explain the different types of chromosomal mutation.
(OR)
(b). Elucidate on sex-linked inheritance with examples

Part C

5 x 7 = 35

Answer all the questions

Each answer should not exceed 600 words or three pages

16. (a). Define conserved proteins. Elaborate on the highly conserved and least conserved proteins with examples.
(OR)
(b). Elucidate on the structural classification of amino acids.
17. (a). Explain Michaelis - Menten kinetics.
(OR)
(b). Elucidate on the metabolic regulation of enzymes.
18. (a). Explain Oxidative phosphorylation with cycle. Add a note on Inhibitors and uncouplers of oxidative phosphorylation.
(OR)
(b). Describe TCA cycle along with regulation and its energetics. Add a note on its Amphibolic role.
19. (a). Elucidate on central dogma of molecular biology.
(OR)
(b). Write a note on Repetitive sequences, Unique sequences Satellite DNA, DNA Methylation
20. (a). Explain the concept of linkage, linkage map, linkage analysis and recombination frequency.
(OR)
(b). Compare the phenotype and genotype relationship.
