TB256718Y

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2025
2018, 2019, 2020, 2021 ADMISSIONS SUPPLEMENTARY
SEMESTER VI - CORE COURSE (ZOOLOGY)
ZY6B11B18 - Biotechnology, Bioinformatics and Molecular Biology

Time : 3 Hours **Maximum Marks : 60**

Part A

I. Answer any Ten questions. Each question carries 1 mark **(10x1=10)**

1. Differentiate between phagemid and phasmid.
2. Define Biotechnology.
3. What are Biopharmaceuticals?
4. What are terminator seeds?
5. Expand a) RasMol b) ORF.
6. Name any 4 programs of FASTA.
7. Define a Ligand.
8. What are Okasaki fragments?
9. Comment on viral genes.
10. Explain the subunits of prokaryotic RNA Polymerase.
11. Comment on Molecular chaperones.
12. Explain Central Dogma.

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Write a note on restriction enzymes.
14. Write a note on nucleic acid hybridisation technique.
15. Comment on the environmental and ecological issues related to genetic engineering.
16. Comment on biological warfare and biopiracy.
17. Briefly explain the protein structure prediction.
18. Define a lead compound. List the properties required for a good lead compound.
19. Explain Hershey-Chase experiment for DNA discovery.
20. Explain DNA and its alternate types.
21. List out the differences between prokaryotic and eukaryotic gene regulation.

Part C

III. Answer any Two questions. Each question carries 10 marks **(2x10=20)**

22. Explain the procedure and applications of DNA fingerprinting.
23. What is Intellectual Property? Explain the mechanisms for protection of biotechnological inventions.
24. Classify protein databases with suitable examples.
25. Explain the mechanism of translation in prokaryotes.