

TB246700A

15-4.

Reg. No : .....

Name : .....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024

2021 ADMISSIONS REGULAR

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. Define molecular probes.
2. What is genetic engineering?
3. Explain transgenesis.
4. Comment on Bt cotton.
5. Name any 2 tree drawing programs.
6. Name any 2 nucleotide sequence databases.
7. Name the scientist who headed the Human Genome Project.
8. Explain overlapping genes.
9. Explain Chargaff's rule.
10. Distinguish between coding and template strand.
11. Comment on proteasome.
12. What is Shine Dalgarno sequence?



**Part B**

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. Write a note on nucleic acid hybridisation technique.
14. Write a note on RFLP and RAPD markers.
15. Give an account on Single cell protein.
16. Describe gene therapy and categories.
17. Describe the classification of Computational proteomics.
18. Explain the methods involved in Computer Aided Drug Discovery.
19. Describe the features of Watson and Crick model of DNA.
20. Write an account on transposons.
21. Describe post translational modifications.

**Part C**

**III. Answer any Two questions. Each question carries 10 marks**

**(2x10=20)**

22. Explain the procedure and applications of DNA fingerprinting.
23. Explain the substrates and procedure of animal cell culture.
24. Explain in detail any 3 nucleotide databases.
25. Describe mechanism of eukaryotic transcription.