QP CODE: 24000748

24000748

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024

Sixth Semester

CORE COURSE - ZY6CRT11 - BIOTECHNOLOGY, BIOINFORMATICS AND MOLECULAR BIOLOGY

Common for B.Sc Zoology Model I, B.Sc Zoology Model II Aquaculture, B.Sc Zoology and Industrial Microbiology Model III Double Main, B.Sc Zoology Model II Food Microbiology, B.Sc Zoology Model II Medical Microbiology & B.Sc Biological Techniques and Specimen Preparation Model III

2017 Admission Onwards

17CA85FD

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Name the instrument used to amplify DNA.
2. What is FISH?
3. What is Zoo blotting?
4. What is therapeutic cloning?
5. What is single cell protein?
6. Explain plant breeder's rights.
7. Differentiate between Bioinformatics and Computational biology.
8. Comment on DDBJ.
9. Examine the composition of DNA.
10. DNA replication is semi- discontinuous. Justify.
11. What is central dogma reverse?
12. What are inducible genes?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Elucidate the historical background of biotechnology.

14. Explain the major steps involved in recombinant DNA technology.

15. Describe the procedure of DNA fingerprinting and ennumerate its applications.

16. Write a short essay on multiple sequence alignment.

17. Comment on phylogenetics.

18. Explain Hershey-Chase experiment.

19. Distinguish between Eukaryotic and Prokaryotic genome.

20. Briefly describe the contributions of Hargobind Khorana.

21. Explain the steps in Reverse Transcription.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Describe various tools used in biotechnology.

23. Briefly explain the basic concept of Drug discovery pipeline.

24. What are transposons? Describe the different methods of transposition.

25. Explain about different levels of eukaryotic gene regulation.

(2×10=20)