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K23P 0220

Reg. No. :

Name :

**IV Semester M.Sc. Degree (CBSS – Reg./Supple./Imp.) Examination, April 2023
(2019 Admission Onwards)**

ZOOLOGY**ZOO4C12 : Biotechnology and Bioinformatics**

Time : 3 Hours

Max. Marks : 60

I. Answer any two of the following :

- 1) Give an account of plasmid and phage vectors used in genetic engineering.
- 2) Briefly discuss the steps and applications of PCR.
- 3) What is the significance of phylogenetic analysis ? Discuss the tools employed.
- 4) Elaborate on the strategies for gene transfer in the host cell. (2×12=24)

II. Answer any two of the following :

- 5) Discuss different types of enzymes used in genetic engineering.
- 6) Give an overview of the types and applications of gene therapy.
- 7) Comment on the methods employed in DNA sequencing.
- 8) Summarize genomic library screening strategies. (2×8=16)

III. Answer any four of the following :

- 9) Discuss intellectual property right.
 - 10) Briefly discuss the advantages of plant tissue culture.
 - 11) Describe Bacterial Artificial Chromosomes.
 - 12) Comment on the applications of Microarrays.
 - 13) Briefly discuss shuttle vectors.
 - 14) Write a short note on transgenic animals. (4×5=20)
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