

K21P 0256

Reg. No. : .....

Name : .....

IV Semester M.Sc. Degree (CBSS – Reg./Suppl. (Including Mercy Chance)/Imp.)

Examination, April 2024

(2014 Admission Onwards)

ZOOLOGY

ZOO 4C12 : Biotechnology and Bioinformatics

Time : 3 Hours

Max. Marks : 60

I. Answer any two of the following :

(2×12=24)

- 1) Write an essay on the of enzymes in genetic engineering.
- 2) Discuss the different gene sequencing methods.
- 3) Describe the ethical and social implications of biotechnology.
- 4) Write an essay on the biological databases, mention the nucleic acid codes used in database formats.
- 5) Give an account of the enzymes employed in genetic engineering.
- 6) Discuss the potential hazards and impacts of biotechnology on society.

II. Answer any two of the following :

(2×8=16)

- 7) Explain the construction of Chimeric DNA.
- 8) Briefly explain the different gene cloning vectors.
- 9) Explain the construction of cDNA genomic libraries.
- 10) What is transfection ? Explain different transfection methods.

III. Answer any four of the following :

(4×5=20)

- 11) Distinguish chromosome walking and chromosome jumping.
- 12) Write notes on terminator genes.
- 13) What is gene therapy ? Enlist its applications.
- 14) Write notes on DNA finger printing.
- 15) Write notes on BLAST and FASTA.
- 16) Explain the intellectual property rights.
- 17) Comment on special vectors.
- 18) Explain chromosome walking.