



K20P 0133

Reg. No.:....

IV Semester M.Sc. Degree (CBSS-Reg./Suppl./Imp.) Examination, April 2020 (2014 Admission Onwards)

ZOOLOGY

ZOO4C12: Biotechnology and Bioinformatics

Time: 3 Hours

Max. Marks: 60

- Answer any two of the following :
 - Write an essay on gene transfer methods.
 - 2) Describe Maxam Gilbert's and Sanger's method of DNA sequencing.
 - 3) Write notes on the enzymes used in genetic engineering.
 - 4) Write the applications of bioinformatics on phylogenetic analysis.

 $(2\times12=24)$

- II. Answer any two of the following:
 - 5) Write notes on Ti Plasmid.
 - Write brief notes on transgenic animals.
 - 7) Write notes on PCR.
 - 8) Describe gene therapy.

 $(2 \times 8 = 16)$

- III. Answer any four of the following:
 - 9) Write notes on Chromosome walking.
 - 10) Explain DNA microarray.
 - 11) What are linkers? Explain its uses.
 - 12) Write notes on restriction enzymes.
 - 13) Write notes on generalised database.
 - 14) Write notes on proteome.

 $(4 \times 5 = 20)$