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RNLKWC/B.Sc.-CBCS/IS/ZOO/H/GE1T/22

2022

Zoology

[GENERIC]

(CBCS)

(B.Sc. First Semester End Examination-2022)

PAPER-GE1T

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any five questions of the following: **5x2=10**
- What is batch culture?
 - Write down the role of Tag polymerase.
 - What is proper chromatography?
 - Write down the differences between normal cell and transformed cell.
 - Write down the role of ethidium bromide in agarose gel electrophoresis.
 - What do you mean by VNTR?
 - Write down the impact of DNA fingerprinting in daily life.
 - State the role of SDS and APS in polyacrylamide gel electrophoresis.

(2)

2. Answer any four questions of the following: **4x5 = 20**

- a) What do you mean by DNA microarray? Write down the differences between cDNA library and genomic library.
- b) Briefly describe the southern blotting hybridization with a proper diagram.
- c) What is bioreactor? Write down the properties of bioreactor.
- d) Define DNA microinjection method. Describe in brief the DNA microinjection method with a suitable diagram.
- e) Briefly describe the sanger method for DNA sequencing.
- f) Write down the short notes on –
 - i) Plasmid vector
 - ii) YAC

3. Answer any one question: **1x10 = 10**

- a) What do you mean by PCR? Briefly describe the steps of PCR.
Write down the significance of PCR. **2+6+2**
- b) Describe the procedure of hybridoma technology. Write down the significance of monoclonal antibody. **8+2**
