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RNLKWC/B.Sc.-CBCS/VS/ZOO./H/DSE2T/22

2022

Zoology

[HONOURS]

(CBCS)

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

PAPER-DSE2T

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**
- a) What is palindromic sequence?
 - b) What do you mean by a blunt end and a sticky end?
 - c) What is the function of Taq polymerase?
 - d) What is knock out mice?
 - e) What is microinjection technique?
 - f) What is phagemid?
 - g) Name two molecular markers and their use in molecular biology.
 - h) Write down the difference between endonuclease and exonuclease.

(2)

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

- a) Mention the origin of CHO and Helacell line. Differentiate between hormonal and transformed cell. 2+3
- b) Classify culture media. 5
- c) Write down the nomenclature of a restriction endonuclease of a restriction endonuclease. Why cosmid vector is advanced than a plasmid vector? 2+3
- d) What is DNA sequencing? Give a detailed account of Sanger method of DNA sequencing. 1+4
- e) Write a short note on DNA microarray. 5
- f) Write the steps of construction of genomic library. 5
- g) Write a note on Cystic fibrosis. 5

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

- a) Define transfection. Describe in brief about chemical and physical transfection strategies. 2+8
- b) Write down the proper steps of southern blotting technique. What is the differences between southern blotting technique (any 2) 8+2
