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RNLKWC/B.Sc.-CBCS/VS/ZOO/H/C11T/22

2022

Zoology

[HONOURS]

(CBCS)

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

PAPER-C11T

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 Shine-Dalgarno sequence?
 - What is Ct value in RT-PCR?
 - What is allo lactose?
 - Which type of nucleic acid is similar to ATP? Write the structure.
 - Differentiate between topoisomerase I and II.
 - Write the function of flap endonuclease.
 - What are the types of DNA repair mechanisms studied by you?
 - Why in blotting technique organic molecules are transferred from gel to nylon membrane?

(2)

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

- a) Write a short note on “wobble hypothesis”
- b) Discuss the positive control of lacoperon.
- c) What are the causative agent of Base Eacision Repair? Name the enzymes associated with this process.
- d) Briefly write the process of PCR.
- e) Differentiate between prokaryotic and eukaryotic DNA replication
- f) Write different types of enzyme conjugated secondary antibody used in western blotting.

3. Answer any one question: 1x10 = 10

- a) What is attenuation? Explain briefly how attenuation control the top operon.
- b) Suppose you have the DNA. Where sequence is appended below. How could you confirm the given sequence with the help of Sanger DNA sequencing method? Explain your answer with the help o9f figure.

3' ATGCTACGA 5'
