21BSC4C4ZOL



B.Sc. IV Semester Degree Examination, Sept./Oct. - 2024 ZOOLOGY

DSC 3: Gene Technology, Immunology and Computational Biology (NEP)

Time: 2 Hours Maximum Marks: 60

Note: (i) Answer **all** sections.

(ii) Draw labelled diagrams wherever necessary.

SECTION - A

Answer the following sub-questions.

10x1=10

- 1. (a) What is Vector?
 - (b) Expand "SCID".
 - (c) Define Ligase.
 - (d) What is Transgenic Plant?
 - (e) What are Interferons?
 - (f) What is Acquired Immunity?
 - (g) Name any two Vaccines.
 - (h) Name any two diseases caused by Bacterial Infection.
 - (i) Define Biostatistics.
 - (j) What do you mean by Mode?

SECTION - B

Answer any four of the following questions.

4x5 = 20

- 2. Write a short note on Transgenic Cow.
- **3.** Give a brief account of T-Lymphocytes.
- **4.** Describe briefly about any two Protozoan Infections.
- **5.** Explain briefly about $P^{BR^{322}}$.
- **6.** Give an account of Histogram.
- **7.** Write a brief note on Biosensors.



SECTION - C

Answer any three of the following questions.

3x10=30

- **8.** Explain in detail about the steps involved in r-DNA Technology.
- 9. Explain the mechanism of second line of body defence.
- 10. Explain Immunization schedule for children.
- 11. Enumerate the applications of Genetic Engineering.
- 12. Write a detailed note on Range and Standard Deviation.

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