25019434

QP CODE: 25019434

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS)) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

Fourth Semester

Core Course - ZY4CRT04 - RESEARCH METHODOLOGY,BIOPHYSICS & BIOSTATISTICS

(Common for B.Sc Biological Techniques and Specimen Preparation Model III, B.Sc Zoology and Industrial Microbiology Model III Double Main, B.Sc Zoology Model I, B.Sc Zoology Model II Aquaculture, B.Sc Zoology Model II Food Microbiology, B.Sc Zoology Model II Medical Microbiology)

2017 Admission Onwards

B4481057

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Name the two basic approaches in research.
2. Give the name of any two sources of review literature.
3. What is an assignment?
4. Comment on line transect.
5. Write short note on species abundance.
6. Comment on molarity.
7. What is a plane polarized light?
8. Write notes on camera lucida.
9. Mention any two principles of Bioethics.
10. What is Reduction?
11. Name the Positional average.
12. Which are the errors in hypothesis testing?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Give an account on writing Research Report.
14. What is meant by primary and secondary sources of information in research?
15. Differentiate between Simpson Index, Simpson's index of diversity and Simpson's reciprocal index.
16. Comment on taxidermi.
17. Describe the working of Electron microscope.
18. Explain the principle and working of pH meter.
19. With illustration, explain the parts of a Spectrophotometer.
20. Write an account on the care and welfare of laboratory animals.
21. Explain different methods of classification and tabulation of data.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Define Research process. Explain the various steps involved in a research project.
23. What are the commonly used bird collection devices?
24. Give a brief outline of various Separation techniques.
25. Define correlation. Which are the different types of correlation, describe? Add a note on methods used to calculate correlation.

(2×10=20)