22101414

QP CODE: 22101414

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) IMPROVEMENT / REAPPEARANCE EXAMINATIONS, MAY 2022

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

DE493AB0

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. What are the objectives of research?
2. Brief notes on assignments.
3. What are search engines? Give an example.
4. Define frequency.
5. Cite the formula for finding Shannon-Weiner index.
6. Write on walk-in trap.
7. Define pH.
8. What is centrifuge?
9. Mention any two principles of Bioethics.
10. Give the main objective of AWBI.
11. Write down the major five statistical steps.
12. Compare median and mode.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Briefly explain the scientific method.
14. Briefly explain the role of internet as a source of information in research.
15. Write an account on quadrate and transect.
16. Briefly explain taxidermy.
17. Give a detailed account on Fluorescence Microscope.
18. Describe the working of Electron microscope.
19. Write an account on colorimetry.
20. Briefly explain animal use in research and education.
21. Body weight in Kg of 50 students in a Class is given below. Find the Standard Deviation

Body Weight (kg)	40	42	38	35	36	39
No: of Students	5	12	8	10	5	10

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Explain how research reports to be prepared scientifically.
23. Comment on units of measurement.
24. Explain micrometry? Briefly discuss on calibration of ocular to stage micrometer. Add a note on its uses.
25. Define correlation. Which are the different types of correlation, describe. Add a note on methods used to calculate correlation.

(2×10=20)