



QP CODE: 19101405



19101405

Reg No :

Name :

B.Sc DEGREE (CBCS) EXAMINATION, MAY 2019

Fourth Semester

Core Course - ZY4CRT04 - RESEARCH METHODOLOGY, BIOPHYSICS & BIostatISTICS

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

2017 Admission onwards

499D1B42

Maximum Marks: 60

Time: 3 Hours

Part A

Answer any **ten** questions.

Each question carries **1** mark.

1. Differentiate qualitative and quantitative research.
2. What is thesis?
3. What is an Online library?
4. What is species richness?
5. What is Taxidermy?
6. What is the SI unit for thermodynamic temperature?
7. Mention the two special devices which makes a Phase contrast microscope differ from an ordinary light microscope.
8. What is the principle of Centrifugation technique?
9. What is Vivisection?
10. Expand CPCSEA.
11. What is a frequency distribution table?
12. What is type II error in hypothesis testing.

(10×1=10)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Explain the Scientific method in Research.
14. Explain the structure of a scientific paper.
15. Explain the sampling techniques for biodiversity estimation.
16. Explain Simpson index in detail.
17. Write short notes on the Principle and types of Camera Lucida.





18. Discuss the principle and technique involved in determining the pH of a solution.
19. Comment on the importance and use of X-ray Crystallography.
20. Give a detailed account of Biodiversity Act 2003.
21. Comment on the various types of Correlation.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Explain the various sources of Information.
23. Give a detailed account of Insect collection methods.
24. Write an essay on Electron Microscopes.
25. Find the standard deviation for the following frequency distribution

Weight in grams	450-460	460-470	470-480	480-490	490-500	500-510
No: of fishes	6	9	10	7	5	12

(2×10=20)

