

Reg. No. :

Name :

Third Semester B.Sc. Degree Examination, March 2022.

First Degree Programme under CBCSS

Zoology

Core Course – III

ZO 1341 – METHODOLOGY AND PERSPECTIVES OF ZOOLOGY

(2015 – 2018 Admission)

Time : 3 Hours

Max. Marks : 80

- I. Answer all questions in one or two sentences (Each question carries 1 mark)
1. Define hypothesis.
 2. What is scientific law?
 3. Define stratified sampling.
 4. What is sampling error?
 5. Define resolving power.
 6. Define standard deviation.
 7. What is simulation?
 8. What is partition coefficient?
 9. Name two fixatives used in electron microscopy.
 10. Expand CCMB and CIFT.

(10 × 1 = 10 Marks)

P.T.O.

II. Answer **any eight** of the following (Each question carries **2** marks) (Answer not to exceed **one** paragraph each)

11. Write short notes on scientific knowledge.
12. What is virtual testing?
13. What is Abbe's formula?
14. Write notes on direct observations.
15. What is negative staining?
16. Write short notes on Student's t- test.
17. Define mode and mention any two of its merits.
18. What is goodness of fit?
19. Write short notes on adsorption chromatography.
20. Write briefly on levels of significance.
21. Write short notes on differential centrifugation.
22. Write a brief note on the activities of RGCB.

(8 × 2 = 16 Marks)

III. Answer **any six** of the following (Each question carries **4** marks) (Each answer should not exceed **120** words)

23. Write notes on principle and types of centrifugation.
24. Distinguish between theoretical and practical knowledge.
25. Write notes on ethics in science.
26. Explain different types of experiments.

27. Describe binomial probability distribution.
28. Explain various graphical representation of data.
29. Explain briefly the principle and working of fluorescent microscope.
30. Distinguish between light microscope and electron microscope.
31. Explain different types of microtomes.

(6 × 4 = 24 Marks)

IV. Answer **any two** of the following (Each question carries **15** marks)

32. Explain in detail the principle, types and applications of chromatography.
33. Define sample. Explain the various methods of sampling.
34. Write an essay on testing of hypothesis.
35. Elaborate different steps involved in the histological preparation of tissues.

(2 × 15 = 30 Marks)