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Reg. No. : .....

Name : .....

Third Semester B.Sc. Degree Examination, January 2023

First Degree Programme Under CBCSS

Zoology

Foundation Course/Core Course

ZO 1341/ZO 1321 : EXPERIMENTAL ZOOLOGY, INSTRUMENTATION BIOSTATISTICS AND BIOINFORMATICS

(ZO 1341-2019 Admission and ZO 1321-2020 Admission Onwards)

Time : 3 Hours Max. Marks : 80

I. Answer **all** questions in **one** or **two** sentences. **Each** question carries **1** mark.

1. Define Probability.
2. What does Ornithology deal with?
3. State the use of a Microtome.
4. List any two examples of Data presentation.
5. Give a stain used in light microscopy.
6. Name the branch for the study of Ductless Glands and Hormones.
7. Mention opportunities for further studies in Zoology.
8. Distinguish anthropology from entomology.

9 State the principle of a Colorimeter.

10 What is termed as Normal Distribution?

(10 × 1 = 10 Marks)

II Answer **any eight** questions. **Each** question carries **2** marks and should not exceed one paragraph.

11 Mention the significance of a Histogram.

12 Explain Null Hypothesis.

13 Comment on Apiculture.

14 Differentiate Mean from Median.

15 Write a short note on any one Molecular Visualisation software.

16 Comment on ORF Finding.

17 Give the significance of Linux Open Source.

18 Distinguish Guarantee from Warranty.

19 Describe the use of Scoring Matrixes in Bioinformatics.

20 Comment on the various Input Devices of a PC.

21 Explain the role of "Booting up" in Personal Computer.

22 Add a short note on TEM.

23 Mention the principle behind a Centrifuge.

24 Explain Standard Deviation.

25 Comment on the uses of Chromatography.

26 Mention the significance of Census method.

(8 × 2 = 16 Marks)

III. Answer **any six** questions. **Each** question carries **4** marks. Each answer should not exceed 120 words.

27. Explain Molecular phylogenetics.

28. What is the principle of a Dark field Microscope?

29. Write a brief account on properties of Computer Networking.

30. Expand OMIM and write its function.

31. Differentiate DNA from RNA.

32. List various Biomolecules, giving their significance.

33. Describe the uses of FASTA software package.

34. Comment on any Statistical Test used to accept or reject a hypothesis.

35. Give the structure of RNA ,with a labeled diagram.

36. Explain any two Photometry techniques and their principle.

37. Add a short note on Stem cell research.

38. Comment on Correlation in data prediction.

(6 × 4 = 24 Marks)

IV. Answer **any two** questions. **Each** question carries **15** marks. Answer as a short essay.

39. Explain the features of a modern PC and its Peripherals.

40. Giving suitable examples, mention the various uses of the Internet.

41. Write an essay on the Institutes of Scientific importance in India.

42. Describe the principle, types and advantages of an Electron Microscope.

43. Discus the main concepts in Computer aided Drug Discovery.

44. Mention Career Opportunities related to the Branches of Zoology.

(2 × 15 = 30 Marks)
