

Reg. No. :

Name :

Third Semester B.Sc. Degree Examination, March 2022

First Degree Programme under CBCSS

Zoology

Foundation Course/Core Course

**ZO 1321/ZO 1341 : EXPERIMENTAL ZOOLOGY, INSTRUMENTATION
BIostatISTICS AND BIOinformatics**

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

Time : 3 Hours

Max. Marks : 80

Draw diagrams only if specified in the question.

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

1. Define Population.
2. Give the main advantage in Random Sampling method.
3. What is Histology?
4. Name the instrument used for sectioning tissues for microscopy.
5. Mention the role of Janus Green.
6. Define Computational Biology.
7. Mention any two Graphical presentations of Data.

P.T.O.

8. Comment on Purchase of Technology.
9. Expand the acronym D.O.S.
10. Which measure depicts the Positional Average of data?

(10 × 1 = 10 Marks)

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

11. State the significance of Chromatography technique.
12. Differentiate RNA from DNA.
13. Give the advantages of Census method during sampling.
14. Comment on Autoradiography.
15. Write a short note on TEM.
16. What is C.I.F.T.?
17. Give an account on Null Hypothesis.
18. Comment on Booting Up in a PC.
19. Distinguish Proteome from Proteomics.
20. What is Sequence Analysis technique?
21. List Data Scanning Devices, used for data entry.
22. Comment on the Standard Error, in measure of dispersion.
23. Write a short note on OMIM.
24. Name the three biomolecules important to Bioinformatics.

25. What is the use of a Centrifuge?
26. Name any two methods used for testing Hypothesis.

(8 × 2 = 16 Marks)

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

27. Explain the uses of FASTA software package.
28. What is Anthropology?
29. Describe any one Molecular Visualization Software.
30. List any two Photometry techniques and principle involved.
31. Comment on Molecular Phylogenetics.
32. Explain the structure of DNA molecule.
33. Comment on the properties of Computer Networking.
34. Differentiate Warranty from Guarantee.
35. What is Goodness of Fit? Give an example.
36. Explain ORF finding.
37. Give the role of Correlation in data prediction.
38. Write a brief account on the Linux open source.

(6 × 4 = 24 Marks)

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

39. Elaborate on Branches of Zoology, and Career opportunities.
40. Describe DNA Fingerprinting and its significance.

41. Explain the basic ideas of Protein Structure prediction.
42. Describe the types of Microscopes, and principle involved.
43. Explain the features of a modern PC and Peripherals.
44. Write an essay on Basic concepts of Computer- aided Drug Discovery.

(2 × 15 = 30 Marks)

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