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Reg. No. : .....

Name : .....

Sixth Semester B.Sc. Degree Examination, March 2021

First Degree Programme under CBCSS

Zoology

Foundation Course – II

ZO 1621 : GENERAL INFORMATICS, BIOINFORMATICS AND MOLECULAR BIOLOGY

(2018 Admission Regular)

Time : 3 Hours Max. Marks : 80

Draw diagrams only if specified in the question.

SECTION – A

Answer **all** the questions in **a** word, or **one** to **two** sentences. Each question carries **1** mark.

1. What is Guarantee?
2. Comment on Modems.
3. Mention role of Cyber laws.
4. State the applications of Virtual Reality.
5. Define Ethernet.
6. What is an Operon?
7. Expand the abbreviation CAD.

P.T.O.

8. What is Patent infringement?

9. Give the role of Molecular Phylogeny in evolution.

10. What is Wobble Hypothesis?

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** questions. Each question carries **2** marks.

Answer not to exceed **one** paragraph.

11. Comment on Protein structure prediction.

12. What is an Operating System?

13. Differentiate Plagiarism from Copyright infringement.

14. Explain the methods to study proteins, in proteomics.

15. Mention how Sequence analysis helps understand Biology better.

16. Comment on the excessive use of Internet by an individual.

17. List two methods to counter the Digital Divide.

18. What are Peripheral devices in a PC?

19. Comment on OMR.

20. List the Output Devices, used in computers.

21. Add a note on Global Digital divide.

22. What is Cyber ethics?

23. Comment on Intellectual Property Rights.

24. Add a note on Green Computing.

25. Explain One Gene One Polypeptide hypothesis.

26. Comment on the modification and repair of DNA.

(8 × 2 = 16 Marks)

SECTION – C

Answer **any six** questions. Each question carries **4** marks.

Answer not to exceed 120 words.

27. Comment on Hershey and Chase experiment.

28. Which are the four basic models of Electronic governance?

29. Mention the scope of Artificial Intelligence.

30. Define Application software, citing any two examples.

31. Explain Biological Data Bases.

32. State the difference between Bioinformatics and Computational Biology.

33. Comment on the Search method used in FASTA.

34. Describe Gene prediction.

35. Give the role of Chaperones in protein structure.

36. What is Hydrophobicity prediction?

37. Give role of Transcription factors.

38. Comment on Futuristic IT.

(6 × 4 = 24 Marks)

SECTION – D

Answer **any two** questions. Each question carries **15** marks.

Answer as long essay type.

39. Describe Bacterial Recombination, with relevant steps involved.

40. Write an essay on the implications of Social Informatics.

41. Explain the relevance of Internet in modern age.

42. Mention contributions of Nirenberg and his associates.

43. Explain Computer aided Drug Discovery pipeline concept.

44. Describe the Knowledge skills for Higher Education.

(2 × 15 = 30 Marks)
