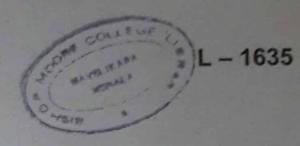
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# Sixth Semester B.Sc. Degree Examination, March 2021 First Degree Programme under CBCSS

# 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.

- 8. What is Patent infringement?
- 9. Give the role of Molecular Phylogeny in evolution.
- 10. What is Wobble Hypothesis?

 $(10 \times 1 = 10 \text{ Marks})$ 

#### 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.

 $(8 \times 2 = 16 \text{ Marks})$ 

#### 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.

 $(6 \times 4 = 24 \text{ Marks})$ 

#### 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.

 $(2 \times 15 = 30 \text{ Marks})$