

School of Biological and Life sciences

Department of Biological and Life Sciences

Mid Term Examination

Exam Date: 29 Sep 2023

Time : 90 Minutes

Marks : 50

Sem V - C2UA501B - Bioinformatics

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

- 1) Explain the concept of a reading frame in DNA sequences K2 (2)
- 2) Explain the role of the GenBank database in storing biological sequences K1 (3)
- 3) What is a genome? K2 (4)
- 4) What is an open reading frame (ORF)? K2 (6)
- 5) Discuss the advantages of using the FASTA format for sequence retrieval and analysis. K3 (6)
- 6) How do researchers and the scientific community benefit from data retrieval from biological databases? K3 (9)
- 7) How do researchers ensure data consistency and quality in sequence databases? K4 (8)
- 8) How can bioinformaticians utilize data in FASTA, GenBank, and UniProt formats for various research tasks? K4 (12)

OR

How is data submission and curation regulated to ensure accuracy and consistency across databases? K4 (12)