

QP CODE: 24900027



Reg No:.....

Name:.....

MAHATMA GANDHI UNIVERSITY, KOTTAYAM
FIRST SEMESTER MGU-UGP (HONOURS) REGULAR
EXAMINATION NOVEMBER 2024

First Semester

Multi-Disciplinary Course - MG1MDCBIF100 - BIOINFORMATICS FOR
BEGINNERS

(2024 ADMISSION ONWARDS)

Duration: 1.5 Hours

Maximum Marks: 35

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Interest (I),
Appreciation (Ap), and Skill (S)**

*Students should attempt atleast one question from each course outcome to enhance their overall
outcome attainability.*

[Learning Domain][CO No(s)]

Part A

Short Answer Questions

Answer any 5 out of 7 questions

Each question carries 2 marks

- | | | |
|---|--|------------|
| 1 | Outline basic concepts in cell. | [K] [1, 2] |
| 2 | Demonstrate the structure of a cell. | [U] [1, 2] |
| 3 | Outline the structure of protein. | [K] [1, 2] |
| 4 | Identify the significance of internet in bioinformatics. | [K] [3] |
| 5 | Write on the chromosome which is completely sequenced first? | [U] [4] |
| 6 | What is the main purpose of the GenBank database? | [K] [5, 6] |
| 7 | Define sequence identity. | [K] [5, 6] |

(5 × 2 = 10)

Part B

Short Essay Type Questions
Answer any 3 out of 5 questions
Each question carries 5 marks

- | | | |
|----|---|------------|
| 8 | Differentiate between prokaryotic and eukaryotic cell. | [U] [1, 2] |
| 9 | Classify different levels of hierachial organization. | [U] [1, 2] |
| 10 | Differentiate between global and local alignment. | [U] [5, 6] |
| 11 | Illustrate the process of retrieving data from UniProt? | [U] [5, 6] |
| 12 | Summarize history,aim and scopes of bioinformatics. | [U] [3] |

(3 × 5 = 15)

Part C

Long Essay Type Questions
Answer any 1 out of 3 questions
Each question carries 10 marks

- | | | |
|----|--|------------|
| 13 | what are the implications of HGP for future medical research and treatments? | [U] [4] |
| 14 | Explain hierachial organization and classify each levels. | [U] [2] |
| 15 | Describe the differences between FASTA and BLAST in terms of functionality | [U] [5, 6] |

(1 × 10 = 10)

END OF THE QUESTION PAPER
