

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

Roll No

MCA-505(C)
M.C.A. V Semester
Examination, June 2020
Bioinformatics
(Elective-III)
Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) What is Bioinformatics? Explain the challenges in information processing.
b) Describe the proteomics and metabolomics in detail.
2. a) Explain primary sequence database and secondary database in detail.
b) What is gene hunting? Explain the various approaches of gene hunting.
3. a) Describe EST. Explain various issues in the interpretation of EST searches.
b) Why do we need to analyze the DNA? Describe various features of DNA sequence analysis.
4. a) Explain pairwise alignment with example.
b) What is global alignment? Describe Wunsch algorithm for global alignment.

MCA-505(C)

PTO

[2]

5. a) What is local alignment? Describe Smith Waterman algorithm for local alignment.
b) Discuss multiple sequence alignment. Explain progressive methods in detail.
6. a) What is BLAST? Explain its working in detail.
b) Describe gene expression informatics and gene finding in detail.
7. a) Explain drug discovery in detail.
b) Describe the concept of pipelining in Perl programming.
8. Write short notes on.
 - a) Macromolecular modelling
 - b) Chemo informatics

MCA-505(C)