NS-3464(N)

B.Sc. (Biotechnology) Examination, June - 2022

FUNDAMENTAL OF COMPUTERS AND BIOINFORMATICS

(B-201)

(New)

(B.Sc. Biotech,

Time : Three Hours]   [Maximum Marks : 50

Note : Attempt any **five** questions. **All** questions carries 10 marks.

1. What is Bioinformatics? Explain in details different biological databases.   10

2. Differentiate between: 4+3+3

   (a) Analog, Digital and hybrid computer

P.T.O.

   (b) Input and Output devices

   (c) Software and Hardware   5+5

3. Write short notes on:

   (a) Different basic commands of UNIX

   (b) Basic commands for DOS and Linux   4+3+3

4. Explain the following:

   (a) Sequence file formats

   (b) Generation of computers

   (c) Operating system

5. Explain Networking. Write the detail of different types of networking topologies.   3+7

6. Define drug designing. Explain in details different steps of drug designing.   3+7

7. (a) Convert $(1110111)_2$ and $(1101110)_2$ binary numbers to decimal number.   4+4+2

(b) Convert $(550)_{10}$ and $(293)_{10}$ decimal number to binary number

(c) Convert $(1486)_{10}$ decimal number to octal number.

8. Write short notes on: 5+5

(a) Pairwise and multiple sequence alignments

(b) BLAST and FASTA

9. Classify computers on the basis of their size and computational capabilities.   10

10. Write shorts notes on:

(a) Internet and Intranet

(b) FTP

(c) WWW