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(20623)

B.Sc. (Bio.Tech.)-II Year

**NS-3464**

B.Sc. (Biotechnology) Examination, June-2023

**FUNDAMENTAL OF COMPUTERS AND  
BIOINFORMATICS**

**(B-201)**

**(B.Sc. Biotech)**

*Time : 3 Hours]*

*[Maximum Marks : 50*

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

1. (a) With a suitable diagram explain the functional unit of a computer. 5+5  
(b) Write in brief about input and output devices.
2. Differentiate between following : 5+5  
(a) Analog and digital computer  
(b) System Software and Application Software
3. What is number system ? Explain in detail about binary, octal and hexadecimal number system with suitable examples. 2+8

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I.P.T.O.

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4. (a) What is FTP and how does an FTP work. 3+3+4  
(b) Explain IEEE's logical link control protocol used for LAN.  
(c) Describe the structure and functions of E-mail protocol.
5. What is bioinformatics ? Explain any five bioinformatics tools in details with their applications. 2+8
6. Differentiate between the following : 4+3+3  
(a) BLAST and FASTA  
(b) Primary database and Secondary database  
(c) UNIX and LINUX
7. Write short notes on : 5+5  
(a) Drug designing  
(b) R package and targeting
8. Explain internet and its services. How internet is useful in biotechnology. 5+5

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9. Write short notes on the following : 4+3+3
- (a) MSDOS
  - (b) Windows
  - (c) Basic Commands of UNIX
10. (a) Explain in detail about sequence alignment and its types. 5+5
- (b) Explain in brief about different sequence alignment tools.