

Exam. Code : 206601

Subject Code : 4651

M.Sc. Bio-Informatics 1st Semester
COMPUTER FUNDAMENTALS, NETWORKING,
WEB TECHNOLOGY AND BASICS OF C
PROGRAMMING LANGUAGE

Paper—BI-514

Time Allowed—3 Hours]

[Maximum Marks—75

Note :— Candidates are to attempt **5** questions, **one** from each Section. **Fifth** question may be attempted from any Section. **All** questions carry equal marks.

SECTION—A

1. (a) Write a detailed note on various components of computer system. Also explain various I/O devices in the computer system. 7
- (b) Write a note on computer virus. What are different types of computer viruses? 3
- (c) What is Moore's Law? 2
- (d) Convert following numbers from one number system to other number system :
 - (i) $(67)_{10} = (?)_2$
 - (ii) $(456)_8 = (?)_{10}$
 - (iii) $(123)_{16} = (?)_2$ 3

2. (a) What are the advantages of Computer Networking ? Explain diagrammatically various Network topologies. Also explain briefly the concept of wireless networking. 8
- (b) Write notes on TELNET and FTP services available on Internet. 4
- (c) Briefly explain function of any two layers of OSI reference model. 3

SECTION—B

3. (a) Explain structure of HTML document and commonly used HTML tags. 6
- (b) What is hyperlink ? Explain the difference between internal and external document referencing. 3
- (c) How we can create table in HTML document ? Explain various tags used for creating table along with their attributes. 6
4. (a) Explain following tags available in HTML along with their attributes :
- (i) <image>
- (ii) and
- (iii) <head>. 6
- (b) Briefly explain features of Dynamic HTML. 5
- (c) What are the advantages of using style sheets in HTML ? 4

SECTION—C

5. (a) What do you mean by Programming Languages ? Explain the difference between Machine Level Language, Assembly Level Language and High Level Language. 5
- (b) Explain various steps for creating and running computer program in C Language. What do you understand by debugging and documentation ? 5
- (c) What do you understand by structured programming ? Explain by giving suitable example. 5
6. (a) What do you mean by Constant and Variable ? Explain the difference between local and global variables. What are the rules for writing names of identifier ? 5
- (b) Explain basic data types available in C programming language. Also give their memory requirements and range. 6
- (c) Write a program in C language to show the use of different data types. 4

SECTION—D

7. (a) Explain different types of operators available in C language by giving suitable examples. 9
- (b) Briefly explain the concept of arrays in C language. What are different types of arrays ? Also write a program in C language to show the use of arrays. 6

8. (a) What do you mean by modular programming ? How C language support modular programming ? How we can define a function in C language ? What is a function prototype ? Explain by giving suitable example. 8
- (b) Explain in detail the use of pointer variables in C language. Also explain structure data type by giving suitable example. 7