

Exam. Code : 206601

Subject Code : 5123

M.Sc. Bio-Informatics Ist Semester

**COMPUTER FUNDAMENTALS, NETWORKING
WEB TECHNOLOGY & BASICS OF
C-PROGRAMMING LANGUAGE**

Paper—BI-514

Time Allowed—3 Hours]

[Maximum Marks—75

Note :— This question paper consists of **two** sections consisting of eleven questions. Question No. **1** in Section-A is compulsory and consists of ten parts, each part carries **1½** marks. Candidates are required to attempt **five** questions from Section-B by selecting **one** question from each unit. Each question in Section B carries **12** marks.

SECTION—A

1. (a) What do you understand by control unit in the computer system ?
- (b) What is a computer virus ?
- (c) What is a firewall ?
- (d) What is the difference between hub and switch ?
- (e) Give three attributes of table tag available in HTML.
- (f) How we can insert background image in HTML document ?

- (g) What is a variable ? How is variable declared in C language ?
- (h) What is an infinite loop ?
- (i) What are the advantages of an array ?
- (j) What do you understand by modular programming ?
 $10 \times 1\frac{1}{2} = 15$

SECTION—B

UNIT-I

2. (a) What do understand by operating system ? Why is operating system is necessary for working of a computer system ? How is it different from application software ? Give various characteristics of operating system. 6
- (b) Give brief history of development of computer system. Also give classification of the computers. 6
3. (a) Convert following numbers from one number system to other number system.
- (i) $(76)_{10} = (?)_2$
- (ii) $(11000111)_2 = (?)_8$
- (iii) $(AB5)_{16} = (?)_8$
- (iv) $(BCD)_{16} = (?)_{10}$ 6
- (b) Explain various types of memory system available in the computer. Also give hierarchy of the memory devices. 6

UNIT-II

4. (a) What do you understand by OSI model for networking ? Explain briefly all the layers of OSI model. 7
- (b) Write a short note on Telnet and FTP. 5
5. (a) Explain various network topologies. 6
- (b) Explain the concept of client server architecture. Also explain TCP/IP protocols for networking of computers. 6

UNIT-III

6. (a) What is a hyperlink ? How can we create a hyperlink in HTML ? Explain the difference between internal and external document referencing. 6
- (b) Explain in detail the concept of style sheets in HTML ? 6
7. (a) Explain the concept of frames in HTML by giving suitable example. 6
- (b) Explain various types of tags used for creating ordered list, unordered list and definition list in HTML by giving suitable examples. 6

UNIT-IV

8. (a) What are different types of programming languages ? What do understand by compiling, debugging and testing a program ? 6
- (b) Explain various input and output statements available in C language. 6

9. (a) Write a program in C language to find the sum of digits of a given number. 6
- (b) Write is a control statement ? Explain different conditional statements available in C language by giving suitable examples. 6

UNIT-V

10. (a) What is a function ? How can we declare a function in C language ? How can we call a function and pass arguments to a function ? What is the difference between local and global variables ? 7
- (b) Explain the concept of recursion by giving suitable example. 5
11. (a) Write a program in C language to find of two arrays. 6
- (b) What do you understand by pointers ? How can we declare a pointer variable in C language ? What are the advantages of using pointers in C language ? 6