B.Sc. (Part–I) Semester–I Examination

COMPUTER SCIENCE OR COMPUTER APPLICATION OR INFORMATION TECHNOLOGY–I (NEW)

(Fundamentals of Information Technology and C Programming)

Time : Three Hours]   [Maximum Marks : 80

N.B. :— (1) All questions are compulsory.

(2) Question No. **1** carries **8** marks and all other questions carry **12** marks each.

(3) Assume suitable data wherever necessary.

1. (A) Fill in the blanks :

   (i) Functions which are designed and developed by programmer are called as _____ function.

   (ii) HTTP stands for _____.

   (iii) MODEM stands for _____.

   (iv) Scanner is _____ device.   2

   (B) Choose the correct alternative :

   (i) The lowest storage unit to measure memory is :

   (a) Mega byte   (b) Nibble

   (c) Binary digit   (d) Byte

   (ii) Comments in C is started and ended with :

   (a) // /*   (b) */ */

   (c) /* /*   (d) /* */

   (iii) Which of the following is NOT a loop statement ?

   (a) while   (b) do-while

   (c) switch   (d) for

   (iv) The symbol used in flowchart for decision making is :

   (a) Rectangle   (b) Circle

   (c) Parallelogram   (d) Diamond   2

   (C) Answer the following in **one** sentence :

   (i) Define Operating System.

   (ii) Define topology.

   (iii) What is Operator ?

   (iv) What do you mean by entry-controlled loop structure ?   4

2. (A) Differentiate between impact and non-impact printer.   6

   (B) Explain the characteristics of computer.   6

OR

3. (A) Differentiate between RAM and ROM. 6

   (B) Explain why secondary memory is required. Draw a block diagram of computer and explain functions of each unit. 6

4. (A) Explain rename, append, close, write operations on files. 6

   (B) Explain the concept of online and real time operating system. 6

OR

5. (A) Explain with suitable examples file naming with respect to file handling. Explain protection, password and Read only flag attribute. 6

   (B) Define operating system. What are its objectives ? Explain time sharing O.S. 6

6. (A) Differentiate between LAN and WAN. 6

   (B) Explain and draw diagram showing arrangement of nodes in mesh topology with some advantages and disadvantages. 6

OR

7. (A) Explain the concept of FTP, HTTP. 6

   (B) Explain with diagram Ring topology. 6

8. (A) Write an algorithm and draw a flowchart to exchange contents of two variables using third variable. 6

   (B) Describe the complete structure of C program with suitable example. 6

OR

9. (A) Explain the concept of the terms – Assembler, Interpreter and Compiler. 6

   (B) Write an algorithm and draw a flowchart to check if the number is divisible by 2 or not. 6

10. (A) Explain implicit and explicit type conversion with suitable examples. 6

    (B) Explain conditional operator with syntax and find out biggest number in given two numbers. 6

OR

11. (A) Explain with concept, syntax and suitable example symbolic constants. 6

    (B) What do you mean by pre and post increment operator used in C language ? Write suitable examples to support your answer. 6

12. (A) Write a program in C to display first 5 odd numbers. 6

    (B) Explain with syntax and suitable example do-while ( ) loop. 6

OR

13. (A) Write a program in C, to find the sum of numbers from 5 to 15 (using For statement). 6

    (B) Explain the working, syntax and suitable example of while ( ) loop. 6