B.Sc. (Part—I) Semester—I (New) Examination

COMPUTER SCIENCE OR COMPUTER APPLICATION OR INFORMATION TECHNOLOGY—I

(Fundamentals of Information Technology and C-Programming)

Paper—I

Time : Three Hours]　　　　　　　　　　　　　　　　　　　　[Maximum Marks : 80

Note :— (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.

(4) Draw neat sketches and diagrams wherever required.

1. (A) Fill in the blanks :

　　(i) ALU stands for _____.

　　(ii) LASER printer is a _____ type of printer.

　　(iii) The meaning of operator && is _____.

　　(iv) The _____ function is known as formatted output function in C.　2

　(B) Choose the correct alternative :

　　(i) The representation of preprocessor directive is :

　　　(a) %　　　　　　　　　　(b) ;

　　　(c) #　　　　　　　　　　(d) /*

　　(ii) In C, operator _____ is known as decrement operator.

　　　(a) ++　　　　　　　　　(b) ==

　　　(c) −−　　　　　　　　　(d) !=

　　(iii) Following is an example of operating system :

　　　(a) Google　　　　　　　(b) Unix

　　　(c) PUBG　　　　　　　(d) None of these

　　(iv) _____ takes a source program and executes it line by line.

　　　(a) Compiler　　　　　　(b) Interpreter

　　　(c) Assembler　　　　　(d) All of these　2

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

　　(i) What is Multitasking ?

　　(ii) What is Internet ?

　　(iii) What is Keywords ?

　　(iv) What is break statement used for ?　4

2. (A) State and explain the features of fourth generation computers.　4

　(B) Why RAM is volatile memory ? Explain.　4

　(C) What is Hardware and Software ? State the difference between system software and application software.　4

OR

3. (A) How do the impact printers work ? Explain.   4

   (B) State and explain the major drawback of first generation computers.   4

   (C) What is ROM ? Explain EPROM and EEPROM.   4

4. (A) What is an operating system ? Explain the functions of an operating system.   6

   (B) Explain the following file operations :

       (i) Open

       (ii) Append

       (iii) Rename.   6

OR

5. (A) State and explain the features of Unix Operating System.   6

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

6. (A) Explain the different types of internet connection.   6

   (B) What is Topology ? Explain Bus and Star topology.   6

OR

7. (A) Explain the history of internet. State the uses/advantages of internet in different areas.   6

   (B) What is Domain and URL ? What is it used for ? Explain.   6

8. (A) Define the terms : Compiler, Interpreter and Assembler. Differentiate between Compiler and
       Interpreter.   6

   (B) What is structured programming ? State the features of 'C'-language.   6

OR

9. (A) What is an Algorithm ? Why is it required in programming process ? Explain with an
       example.   6

   (B) What is Flow-chart ? Draw a flow-chart to find the factorial of a given number.   6

10. (A) What are the relational and logical operators in 'C' ? Explain.   6

    (B) Distinguish between the terms identifiers and keywords.   6

OR

11. (A) What are increment and decrement operators in C ? Explain with example.   6

    (B) Write a program in C to generate Fibonacci numbers.   6

12. (A) Explain nested-if control structure with suitable example.   6

    (B) Explain the following unformatted I/O functions :

        (i) getch( )

        (ii) getche( )

        (iii) getchar( ).   6

OR

13. (A) Write a program in C to print the multiplication table using any looping structure. 6

    (B) Explain switch-case control statement with example.   6