SEM 2 – 3 (RC 07-08)

F.E. (Semester – II) (Revised in 2007-08) Examination, Nov./Dec. 2015
INFORMATION TECHNOLOGY

Duration : 3 Hours | Total Marks : 100

Instructions : *1) Attempt **any five** questions, with at least **one** question from **each** Module.*
2) Make suitable assumptions, if required.

Module – I

1. a) Explain the characteristics of a monitor. 6

   b) What is an operating system ? List the functions of operating system. 5

   c) What do you mean by topology ? Explain any 2 network topologies with the help of diagrams. 6

   d) What is an IP address ? 3

2. a) Explain the working of CPU and memory with the help of a diagram. 7

   b) Describe the working of email. 8

   c) What are input devices ? Explain any two input devices. 5

Module – II

3. a) Explain the generations of languages. 6

   b) Write an algorithm and draw a flowchart to find sum of digits of a number. 8

   c) List the characteristics of data in a database. 6

4. a) Write an algorithm and draw a flowchart to generate Fibonacci series. 8

   b) With the help of a neat diagram explain the compilation process. 6

   c) Differentiate between high level and low level languages. 6

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Module – III

5. a) Write the general syntax and explain the working of 'for' statement in C with an example. 5

   b) Distinguish between ++ i and i++. 2

   c) Write a C program using switch statement to implement the simple operations of a calculator. 6

   d) What is an operator ? Explain the arithmetic, relational and assignment operators in C language. 7

6. a) What is type conversion ? Explain different types of type conversions. 6

   b) Explain with example entry controlled and exit controlled loop. 6

   c) Write a C program to generate the following pattern. 5

```
    *
   ***
  *****
 *******
*********
```

   d) Give the use of break statement in loops with an example. 3

Module – IV

7. a) What is function ? Write and explain the general format of function definition. 5

   b) Write a C program to find the squares of numbers stored in an array. 6

   c) What is recursion ? What are the advantages and limitations of recursion ? 4

   d) Write a C program to open a file and enter some text in it. 5

8. a) Explain the following file input/output functions. 6

      i) rewind()

      ii) getc()

      iii) fseek()

   b) Write a program to read array of n random numbers and sort and print the numbers in ascending order. 7

   c) Define and explain two dimensional arrays with example. 4

   d) Explain the different modes of a file. 3