F.E. (Semester – II) (Revised in 2007-08) Examination, May/June 2014
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 different input devices with example. 6
   b) Describe the characteristics of monitor. 5
   c) Describe ring topology with diagram. 6
   d) Distinguish between DRAM and SRAM. 3
2. a) Describe the working of e-mail with a diagram. 10
   b) Explain the peer to peer and client server architecture. 6
   c) What is domain name and IP address ? 4

MODULE – II

3. a) Explain database models. 7
   b) Describe steps involved in compilation with diagram. 7
   c) Differentiate between assembly level language and high level language. 6
4. a) Describe the characteristics of data in a database. 8
   b) What are the benefits of using database management system ? 4
   c) Write an algorithm and draw a flowchart to find factorial of a number. 8

MODULE – III

5. a) What is meant by operator precedence and associativity. 8

   Using hierarchy of operators evaluate the following expression :

   int a = 16, b = 6, c = 2

   i) (a^b)|~a ii) (a>>c)*b/c%a

P.T.O.

b) Write a 'C' program to compute the sum of following series : 6

$2-4+6-8+10.....(-1)n-1(2n)$

c) Distinguish between "while" and "do while loop" with the help of example. 6

6. a) Give the output of the following C program : 6

i)
```
#include<stdio.h>
 void main()
{
   int x=0,y=0,z;
   z=10;
   do{
        x=z--;
        y=--z;
     }while(z>0);
   printf("x=%d,y=%d,z=%d",x,y,z);
}
```

ii)
```
#include<stdio.h>
void main()
{
   int x=0;
   while(x=0)
   {
      printf("x is equal to zero");
   }
}
```

iii)
```
#include<stdio.h>
void main()
{
   int x;
   float y = 1.0;
   x=(y>1.0)?2.50:3.5;
   printf("%f",(float)x);
   getch();
}
```

b) Write a C program to generate the following pattern using "for" loop: **8**

```
    5
   44
  333
 2222
11111
```

c) Explain the syntax of the following using examples : **6**

i) scanf

ii) printf

iii) switch.

MODULE – IV

7. a) Write a C program to find largest and smallest element in an array of integer elements. **7**

b) State and explain the elements of a function. **6**

c) What is recursion ? Write a C program to find the factorial of a number using recursion. **7**

8. a) Write a C program to copy the contents of file1.txt to file2.txt. **8**

b) Differentiate between the following string handling function using examples. **4**

i) strcat v/s strncat

ii) strcpy v/s strncpy.

c) Explain different modes of a file. **2**

d) Write a C program to find the length of the string without using string handling function. **6**