SEM 2 – 3 (RC 07-08)

F.E. (Semester – II) (RC) Examination, May/June 2016
INFORMATION TECHNOLOGY

Duration : 3 Hours | Total Marks : 100

Instruction : *Answer **any five** questions by selecting at least **one** question from **each** Module.*

MODULE – 1

1. a) What is a keyboard ? What are the different keys present on the keyboard ? 4
   b) Draw the diagram showing the steps involved in the working of CPU and memory. 6
   c) What does an Email address consists of ? Explain with an example. 5
   d) What is auxiliary storage ? Explain floppy disk and hard disk. 5
2. a) What is the purpose of the following LINUX commands :
      i) vi
      ii) mkdir
      iii) cp
      iv) rmdir 4
   b) What are the different types of mice ? 4
   c) What are Optical Disks ? Explain different types of Optical Disks. 8
   d) Explain the following :
      i) Web Browser
      ii) IP address. 4

MODULE – 2

3. a) Write an algorithm and draw the flowchart to find summation of n natural numbers. 6
   b) Describe with a diagram the different steps involved in the compilation process. 8
   c) Differentiate between third generation and fourth generation high level languages. 6

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4. a) Provide an algorithm and flowchart to exchange the values of two variables. 8

   b) What is Database Management System ? What are the benefits of using Database Management System ? 6

   c) What is an assembler ? What are the functions of assembler and compiler ? 6

MODULE – 3

5. a) Differentiate between while and do while loop. (One point of difference should be example). 6

   b) Write C program to display following pattern 6

```
1
2 3 4
5 6 7 8 9
```

   c) What do you mean by Identifiers in C ? Specify Rules for Identifiers. Give example. 5

   d) What output following programs will generate : 3

i.

```
#include<stdio.h>
void main()
{
 char inchar = 'A';
 switch (inchar)
 {
case 'A' :
    printf ("choice A \n") ;
case 'B' :
    printf ("choice B ") ;
case 'C' :
case 'D' :
case 'E' :
default:
    printf ("No Choice") ;
 }
}
```

ii.

```
#include<stdio.h>
void main( )
{
  int i=2,j=2;
  while(i+1? -- i : j++)
   {
     printf("%d", i);
   }
  return 0;
}
```

6. a) Write C program to calculate the sum of squares of "n" odd numbers. 6

   b) Explain "switch" case with example. 4

c) Write short note on Relational operators. 4

d) Point out the errors, if any 6

i.

```
#include<stdio.h>
inta main()
{
    int i==1;
    for(;;)
    {
   print(" %d\n', i++);
        if(i>10)
           break;
    }
    return 0;
}
```

ii.

```
#include<stdio.h>
int main()
{
    int a = 10;
    swicth(a)
    {
  case1:printf("hi");
  case
2:printf("hello");
    }
 printf("c program);
    return 0
}
```

iii.

```
#include<stdio.h>
int main()
{
    int i=1;
    while()
    {
  printf("%d\n', i++);
        if(i>10)
           brek;

    return 0;
}
```

MODULE – 4

7. a) Explain with example Automatic and Static variables. 6

b) Write C program to put even and odd elements of an array in 2 separate arrays. 8

c) Explain following String Manipulation functions with examples : 6

i) strncat

ii) strcpy

iii) strstr

8. a) Differentiate between Call by Value and Call by Reference. (One point of difference should be example). 6

b) Write C program to count number of characters, commas and newlines in the file. 8

c) Explain following Input/Output functions with example. 6

i) fscanf

ii) fseek

iii) fclose.