B - 555 (Pages : 03) SEM 2-3 (R07 - 08)

[Total No. of Questions : 8]

F.E. (Semester - II) (RC) Examination, Nov. - 2011
INFORMATION TECHNOLOGY
(Revised in 2007 - 08)

Duration : 3 Hours **Total Mark: 100**

Instructions : 1) Answer any five questions with at least one question from each module.
2) Assume necessary data.
3) Diagrams in pencil only.

MODULE - I

Q1) a) Explain the mechanism of a floppy disk and provide a suitable diagram to support the answer. **[5]**

b) Explain the working of a CPU and memory with the help of a diagram. **[6]**

c) Explain the characteristics of a monitor. **[6]**

d) Distinguish between DRAM and SRAM. **[3]**

Q2) a) Give the use of the following DOS commands. **[2]**

i) Dir.
ii) Mkdir.

b) What is operating system? List the functions of operating system. **[4]**

c) Write a note on the following network architecture. **[8]**

i) Peer to peer architecture.
ii) Client/server architecture.

d) Write a short note on the following : **[6]**

i) Spamming.
ii) Web browser.
iii) URL.

MODULE - II

Q3) a) What is DBMS? What are the services provided by DBMS. **[8]**

b) Write an algorithm and draw a flowchart to reverse a number. **[8]**

c) Distinguish between a compiler and an interpreter. **[4]**

Q4) a) Describe the different types of high level languages. **[6]**

b) State and explain the characteristics of data present in a database. **[8]**

c) Write an algorithm and draw a flow chart to find the summation of n natural numbers. **[6]**

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MODULE - III

Q5) a) List and explain the basic datatypes used in C. [6]

b) Distinguish between ++ *i* and *i* ++ . [2]

c) Give the output of the following programs. [4]

i)
```
main ( )
{
    int x = 3, y = 4, z = 1,
    x + = y;
    y – = x;
    z * = x;
printf ("% d % d % d", x, y, z);
}
```

ii)
```
main ( )
{
    int x, y;
    x = 128;
    y = 32;
    x = x > > 1;
    y = y < < 2;
    printf ("x = % d and y = % d, x, y);
}
```

d) Write a C program to generate the prime number series (1 2 3 5 ..... n terms) [8]

Q6) a) Write a C program to generate the following pattern. [8]

```
A  B  C  D  D  C  B  A
A  B  C        C  B  A
A  B              B  A
A                    A
```

b) Point out the ever in the following program and correct it. [3]

```
Void main ( )
{
    int a , i;
    scanf (" % d"; a);
    i = = a > 5? 2 ? 3;
    print ("i = % d / n", i);
}
```

c) Write a menu driven program to implement a calcul/r. [6]

d) With the help of an example, explain what is the use of goto statement. [3]

MODULE - IV

Q7) a) Distinguish between local and global variables with the help of an example. [4]

b) What is recursion? Write a recursive function to find the factorial of a number. [6]

c) Write a C Program to search for the desired element in an array of integers. [6]

d) What is an array? Give the different ways of initialization of 1 - D array. [4]

Q8) a) Write a program to read data from keyboard until '\n' is encountered. Write this data to a file called "input.txt". Again read the same file and display the contents of the file on the screen. [8]

b) Explain the different modes of a file. [2]

c) Explain the following string handling function. [2]

i) Strcnip ( )

ii) Str cat ( )

d) Write a C program to copy the content of string S1 to string S2 without using the string handling functions. [8]

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