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F.E. Semester-II (Revised Course 2007-08)
EXAMINATION MARCH 2021
Information Technology

[Duration : Two Hours] **[Total Marks : 60]**

Instructions: Answer THREE FULL QUESTIONS with ONE QUESTION from ANY THREE MODULES.

MODULE-I

Q.1 a) Write a short note on Dot Matrix and Inkjet Printer **(6)**

b) What is monitor? Describe the characteristics of a monitor. **(6)**

c) With the help of diagram explain any two network topology. List its advantages and disadvantages. **(8)**

Q.2 a) Explain with diagram the peer to peer and Client Server architecture **(6)**

b) Write short notes on: **(4)**
i) Magnetic Tapes ii) URL

c) What is an operating system? Briefly describe its functions **(6)**

d) Explain the following DOS Commands **(4)**
i) CHDIR ii) RMDIR iii) DEL iv) MKDIR

MODULE-II

Q.3 a) Write an algorithm and draw the flowchart to find factorial of a number. **(6)**

b) Describe the characteristics of data in the database. **(6)**

c) Write an algorithm to find largest of two numbers. **(4)**

d) Differentiate between compiler and interpreter. **(4)**

Q.4 a) What is flowchart? What are the different elements used for constructing the flowchart. **(5)**

b) Write an algorithm and draw the flowchart to find Fibonacci of a number. **(6)**

c) Differentiate between assembly level languages and high level languages. **(4)**

d) Describe with a diagram the different steps involved in the compilation process. **(5)**

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MODULE-III

Q.5 a) Differentiate between break and continue. (One point of difference should be Example) **(6)**

b) Write a C program to display following pattern. **(6)**

```
   1
  232
 34543
4567654
```

c) What do you mean operator precedence & Associativity in C? List out all operators with precedence & Associativity. **(5)**

d) What output will the following programs generate. **(3)**

i.
```
#include<stdio.h>
int main( )
{
    int x = 011, i;
    for(i=0; i<x; i +=3)
  {
       printf("Start");
         continue;
       printf("End");
  }
   return 0;
}
```

ii.
```
#include<stdio.h>
int main( )
{
    int i,j;
    i=j=2,3;
    while(--i && j++)
    {
       printf("%d %d",i,j);
    }
    return 0;
}
```

Q.6 a) List & explain in detail basic data types in C. **(7)**

b) Write a C Program to check whether user entered number is an Armstrong number. **(7)**

c) Point out the errors, if any else write the output. **(6)**

i.
```
#include<stdio.h>
int main( )
{
   int i;
   for(++i;++i;++i)
   {  printf("%d" , &i);
      if(i=4)
         break;
   return 0;
}
```

ii.
```
#include<stdio.h>
int main( )
{
   int i=1;
   for(i= =0;i=-1;i=1){
      printf(" %d', i);
      if(i!=1)
         break;
   }
   return 0;
}
```

iii.
```
#include<stdio.h>
int main( )
{
    int i;
    for(i=10; i<=15;i++)
  {
   while (i)
   {
      do{
          printf("%d ",1);
          if(i>>1)
             continue;
        }while (0);
                 break;
    }
  }
       return 0;
}
```

MODULE-IV

Q.7 a) Write C Program to insert an element in a specified position in a given Sorted Array (Assume user entered sorted array is in Ascending order) **(8)**

b) Explain the following with examples: **(6)**
i. Global variables ii. Static variables

c) With examples explain the following:ss **(6)**
i. strcmp ii. strncat iii. strstr

Q.8 a) Write C Program to count number of characters, spaces and newlines in the file. **(8)**

b) Explain following Input/Output functions with example. **(6)**
i. fprintf ii. ftell iii. fputc

c) With the help of example Explain: **(6)**
i. Call by Value
ii. Call by Reference