

Program : BE ELX/CE/IT Time : 2 hrs
Semester : Fall (I) FM : 70
Subject : Programming in C PM : 35

✓ *Candidates are requested to give their answer as far as practicable in their own words.*

✓ *The figure in the margin indicates the full marks*

✓ **Attempt ALL question**

1. a) Explain different generations of computer. Briefly distinguish high level language from low level language. 8
- b) What are algorithm and flow charts? Draw a flow chart which prints the highest of three numbers. 7
2. a) What is an operator? List and briefly describe different types of operators used in C programming language. 8
- b) What is an identifier? Specify the rules for defining it. Determine which of the following are valid identifiers if not specify the reason. 7
 - (i) Array (ii) for (iii) l_name (iv) name and address
3. a) Write a menu driven program to perform following tasks according to the user input. 8

M E N U

 - i) To print the numbers in series (1 2 3 4 5 6...)
 - ii) To find the number is odd or even.
 - iii) To print cube of a number.
 - iv) To print "thank you for using my program" message.
- b) Write the complete program which will generate the following output. 4


```
0 2 3 4 5
1 0 3 4 5
1 2 0 4 5
1 2 3 0 5
1 2 3 4 0
```
- c) What will be the output after the execution of the following code? 3

```
void main ( )
{
    int i;
    for ( i=1; i<5; i++ )
        printf ("%d\n",i+1);
    for ( ; i<=50 ; )
    {
        if (i%5==0)
            i=i+5;
        else
            i++;
        printf("\n %d",i);
    }
}
```

4. a) What is a function? What are the benefits of using them? Write a program using function (any type) to generate the Fibonacci Series (1, 1, 2, 3, 5, 8, 13.....) up to nth terms. 8
- b) If A=17, B= 6 & C =2 what will be the final values of A, B & C after the execution of following statements. 7


```
B = -B + ++A - C -
A = ++A + A++ + ++B
C = A++ + B-- + ++C
```
5. Write short notes on (any two) 2*5=10
 - a) while and do-while loop
 - b) Constants and variable
 - c) Program Documentation