

Code: EE2T6, CE2T6, ME2T6, CS2T6, IT2T6

I B.Tech - II Semester – Regular/Supplementary Examinations
April – 2018

C - PROGRAMMING
(Common for EEE, ME, CSE, CE, IT)

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22 M

1.

a) What are the rules to declare C variables?

b) Consider the following program

```
#include<stdio.h>
main()
{
    int a=10, b;
    b = a++ + ++a;
    printf("a=%d  b=%d", a, b);
}
```

What is the output of above program? Explain it in two lines.

c) Differentiate while loop and do-while loop.

d) List and give examples of different methods of initializing two dimensional array.

e) Differentiate call by value and call by reference.

f) List advantages and disadvantages of recursion.

g) Define pointer. What is the advantage of using pointers?

h) Consider the following program

```
#include<stdio.h>
#define MAX 100
main()
{
    int a=10;
    if(MAX < a)
        printf("Hello\n");
    else
        printf("Hai");
}
```

What is the output of above program? Explain it in two lines.

- i) Differentiate structure and Union.
- j) How to declare enum types? Give an example.
- k) What is the difference between Machine Language & Assembly Language?

PART – B

Answer any **THREE** questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Explain about different operators in C language. 10 M

b) Write an algorithm to find area of a circle. 6 M

3. a) Write a C program to find transpose of a matrix. 8 M

- b) Write about any four string related functions in C. Give an example for them. 8 M
4. a) Write about different storage classes in C. 8 M
- b) Develop a function which computes factorial of a given number using recursion. 8 M
5. a) List the functions used in the dynamic memory allocation. Explain each function with an example. 8 M
- b) Write briefly about predefined macros in ctype.h header file. 8 M
6. a) How we define structure inside a structure? Demonstrate it with an example program. 8 M
- b) Write a C program to perform average of three number using files. Assume input numbers are existing in a file with name input.txt and result need to be saved in another file with the name output.txt. 8 M