

Code: EC1T5, AE1T4

**I B. Tech - I Semester – Regular/Supplementary Examinations  
November 2017**

**C - PROGRAMMING  
(Common for ECE & AE)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

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

11 x 2 = 22 M

1.

a) Draw a flow chart for finding sum of **n** numbers.

b) Consider the following program

```
#include<stdio.h>
main()
{
    int a=5;
    b = a << 2;
    printf("a=%d  b=%d \n", a,b);
}
```

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

c) Write the syntax of switch-case. Write the role of default case in it.

d) Consider the following program

```
#include<stdio.h>
main()
{
```

```
int i;
for(i=0; i<10 ; i += 2)
printf("%d  ", i);
}
```

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

- e) What is the use of **static** keyword in C. Give an example for it.
- f) Write a C program to compute **gcd** of two numbers using recursion.
- g) How to declare a pointer to a pointer and write a program which uses this concept.
- h) Consider the following program

```
#include<stdio.h>
#define DEF
main()
{
    #ifdef DEF
        printf("Hello\n");
    #else
        printf("Hai");
    #endif
}
```

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

- i) Define Array with an example.
- j) What are bit fields? Give an example for it.
- k) What do you know about environment variables?

## PART – B

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

3 x 16 = 48 M

2.a) Explain about different data types in C language. 8 M

b) Write an algorithm to find smallest of three given numbers.  
8 M

3.a) Write a C program to find multiplication of two matrices.  
8 M

b) Write a C program to read **n** strings and sort them in ascending order. 8 M

4.a) Write about different types of functions in terms of arguments and return types. 8 M

b) What are different parameter passing mechanisms exists in C? Explain each method with an example program. 8 M

5.a) Define void pointer. Where we use this concept? Give an example for it. 8 M

b) Write briefly about standard I/O predefined streams in **stdio.h**. 8 M

- 6.a) Define a structure with the name **student**. Assume appropriate fields in student structure. Develop a program which reads **n** students data and displays all **n** students information. 8 M
- b) Write about different built-in functions used in Files concept. 8 M