

Code: EC1T5, AE1T4

**I B.Tech - I Semester – Regular Examinations - January 2015**

**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) Describe the structure of a C program.
- b) Explain the differences between compiler and interpreter.
- c) What is the difference between while loop and do-while loop?
- d) i) Change the following for loop to while loop  
for (i=1;i<=10;i=i+1)  
printf(“%d”,i);  
ii) Write a program to read and display a 3x3 matrix A?
- e) What do you mean by modular programming?
- f) Distinguish between the following:
  - i) Actual and formal arguments
  - ii) Scope and Visibility of variables
- g) What is a pointer? How can it be initialized?
- h) What is a macro and how is it different from a C variable name?
- i) Distinguish between Structures and Unions.
- j) What is the purpose of following functions?
  - i) feof( )
  - ii) ferror( )

k) Compare the working of following functions:

i) strcpy and strncpy

ii) strcat and strncat

### PART – B

Answer any **THREE** questions. All questions carry equal marks. 3 x 16 = 48 M

2. Describe the various types of operators in C language along with its priority. 16 M
3. What is “if” statement? Give different forms of “if-else” statements using syntax and flowchart notations (use suitable examples). 16 M
4. a) Write a program for arranging numbers in ascending order using recursion. 12 M  
b) What is recursive function? What is the drawback of using recursion? 4 M
5. a) What is pointer ? Give an example on call by address. 6M  
b) List the differences between array and pointer. Write a program to concatenate two strings using pointers. 10 M
6. a) What is an enumerated data type? How is initialization of members to enum data type done? 8 M  
b) Describe different file opening modes used with the fopen( ) function. 8 M