

B.Tech I Year I Semester (R15) Regular & Supplementary Examinations December 2017

COMPUTER PROGRAMMING

(Common to CE, EEE, CSE, ECE, ME, EIE and IT)

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

1 Answer the following: (10 X 02 = 20 Marks)

- Differentiate between algorithm and program.
- What is the main difference between variable and constant? List any two constants used in C.
- Explain pointer to an array with an example.
- Define break and continue statements along with their syntax.
- What is meant by storage class of variable?
- What is pointer? Give its General form.
- Write any two differences between union and structure.
- What is the use of typedef?
- What is a pre-processor?
- What role does the fseek() plays and how many arguments does it Have?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I2 What is an Algorithm? Write an algorithm to compute factorial of a number n where $n \geq 0$.**OR**

3 Explain the following operators: (i) Arithmetic operator. (ii) Relational operator. (iii) Logical operator. (iv) Increment & decrement operator. (v) Conditional operator.

UNIT – II

4 What do you mean by a loop? Explain the difference between the do loop, while loop, and for loop with the help of an example.

OR

5 (a) Write a C function for searching an element in an array of size N. Assume that elements in array are stored in ascending order.

(b) Explain the declaration `int (*p (char *a))[10]`.**UNIT – III**

6 What is meant by the scope of variables and summarize types of storage class in C?

OR

7 Write a program to assign any number at random to an integer variable k and display the same through pointer.

UNIT – IV

8 What is the difference between a structure declaration and a structure initialization?

OR

9 Define a function & explain why function prototype is essential.

UNIT – V

10 Write different built-in (library) functions provided by 'C' language for handling I/O operations on files.

OR

11 What are the features of C preprocessor? Give the differences between macros and functions.