

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)
- (a) Differentiate between algorithm and program.
 - (b) What is the main difference between variable and constant? List any two constants used in C.
 - (c) Explain pointer to an array with an example.
 - (d) Define break and continue statements along with their syntax.
 - (e) What is meant by storage class of variable?
 - (f) What is pointer? Give its General form.
 - (g) Write any two differences between union and structure.
 - (h) What is the use of typedef?
 - (i) What is a pre-processor?
 - (j) 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 – I

- 2 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.