



B.Tech I Year I Semester (R15) Supplementary Examinations June/July 2019

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) Distinguish between application and system software.
- (b) Identify and eliminate the error present in the statement:
CS > EC ? ANS = CS : ANS = EC
- (c) Define an array. Write the formula to find the address of element in 1-D array.
- (d) In how many ways, an array can be initialized? Give example for each.
- (e) List the advantages and disadvantages of pointers.
- (f) In what way call by value mechanism differs from call by reference mechanism?
- (g) Write brief information on importance of Bit Fields.
- (h) How can we declare variable length parameters? Give example.
- (i) Why we need files?
- (j) How can we define global constants? Give example.

PART – B

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

UNIT – I

- 2 (a) With the help of a neat sketch, explain the software development life cycle.
- (b) Write a C program to find whether any given year is a leap year or not.

OR

- 3 (a) What is an expression? How many types of expressions are supported by C? Give examples for each.
- (b) Describe the different bitwise, increment/decrement and assignment operators with suitable examples.

UNIT – II

- 4 Distinguish between conditional and unconditional jump statements. With the help of flowchart and example, explain the different jump statements that are supported by the language C.

OR

- 5 (a) How the for loop differs from while and do while statements?
- (b) Write a C program to find the sum of the individual digits of any given number:
(Ex. 4721 = 4 + 7 + 2 + 1 = 14).

UNIT – III

- 6 (a) Write a program using C to interchange two values by using pointers.
- (b) Give brief description about the different functions that supports the dynamic memory allocation for variables.

OR

- 7 With the help of syntax and example program, explain the various storage specifiers.

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**UNIT – IV**

- 8 Based on return type and arguments, how many types of functions are there? Explain them with an example program.

OR

- 9 Define structure. Why we need structures? Explain the nested structure and self referential structures.

UNIT – V

- 10 (a) Give brief description about conditional preprocessors.
(b) Write a C program to count the number of words, white spaces and lines present in a file.

OR

- 11 (a) Write short notes on file opening modes.
(b) Describe the `fprintf()` and `fscanf()` functions.

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