

18CPS13/23

USN

First/Second Semester B.E. Degree Examination, June/July 2019 C Programming for Problem Solving

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

With a neat block diagram of computer, explain its components. 1

(10 Marks)

Classify the following into input and output devices:

Monitors, visual display unit, Track balls, Bar code reader, Digital camera, Film recorder, Microfiche, OMR, Electronic Whiteboard, Plotters. (05 Marks)

Define the terms: Network, LAN, WAN, MAN and network topology.

(05 Marks)

Write the basic structure of C program. Explain each section briefly with suitable example. 2

(09 Marks) (07 Marks)

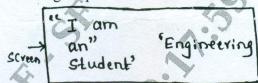
b. Define operator. Explain any 6 operators with suitable example.

State whether the following are valid identifiers or not: integer, float, I am, 123_AbC.

(04 Marks)

Module-2

a. Define and write the classification of Input and Output statements in C. Write a C-program that prints the following output:



(06 Marks)

b. Define branching statements. Explain them with syntax and suitable example.

(10 Marks)

Evaluate: i = 1

printf ("Sunday");

Explain your result briefly.

(04 Marks)

OR

State the drawback of ladder if-else. Explain how do you resolve with suitable example.

(08 Marks)

Write a C program to get the triangle of numbers as a result:

(06 Marks)

Write a C program to check whether given number is prime or not.

(06 Marks)

42+8 = 50, will be treated as malpractice. Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining 2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8=



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Module-3

a. Define an array. Explain with suitable example how do you declare and initialize 1D array.
 b. Write a C program to search an element using linear and binary techniques. (10 Marks)

OD

a. Define a string. Explain any 4 string library functions with syntax and example. (10 Marks)
b. Write a C program to copy a string (combination of digits and alphabets) to another string (only alphabets). (10 Marks)

Module-4

a. Define a function. List and explain the categories of user defined functions. (10 Marks)
b. Write a C-program for evaluating the binomial coefficient using a function Factorial (n).

(10 Marks)

OR

8 a. Define a recursion. Write a C recursive function for multiplying two integers where a function call is passed with two integers m and n. (10 Marks)

b. Differentiate: (i) User defined and built-in function (ii) Recursion and iteration (10 Marks)

Module-5

9 a. Define structures. Explain how do you declare, initialize and represent the memory for structure variable. (10 Marks)

b. Write a C program that accepts a structure variable as a parameters to a function from a function call. (10 Marks)

OR

a. Define pointers. Explain pass by value and pass by reference with C statements and an example. (10 Marks)

b. Define pre-processor directives. Write C program that finds the addition of two squared numbers, by defining macro for Square (x). (10 Marks)