SH-III/Electronics-303C-7(T)/19

B.Sc. Semester III (Honours) Examination, 2018-19

ELECTRONICS

Course ID : 31713 **Course Code : SHELC-303C-7(T)**

Course Title : C Programming and Data Structures

Time: 1 Hour 15 Minutes **Full Marks: 25**

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any three* of the following: 1×3=3

(a) Why do we need to use 'comment' in a program?

(b) What is an array?

(c) What is the meaning of '\n' in C program?

(d) What do you mean by 'keywords' in C language.

(e) What is 'Structure'?

(f) State various data types in C language.

2. Answer *any three* of the following: 2×3=6

(a) Define and explain scanf () or printf () functions.

(b) What do you mean by 'local variables' and 'global variables'? 1+1=2

(c) Define string. Mention four important string handling functions in C. 1+1=2

(d) What do you mean by 'Precedence' and 'Associativity of Operators'? 1+1=2

(e) Explain the term 'user defined function' and 'built-in function' with example.

(f) Mention two rules in naming variables in C program.

3. Answer *any two* of the following: 5×2=10

(a) List different types of decision making statements in C language. Explain any one of these with example. 2+3=5

(b) Write a C program to input the elements of two 3 × 3 matrices and find their multiplication. 2+3=5

(c) Explain 'break' and 'continue' statement in C program with example. 2½+2½=5

(d) What is a loop? What is the difference between 'while' and 'do-while' loop in C? Explain any one with an example. 1+1+3=5

4. Answer *any one* of the following questions: 6×1=6

(a) Write a C program to accept a number from the user and check whether given number is present or not using linear search algorithm.

(b) Write a program to arrange *n* elements in descending order using Bubble sort algorithm.

(c) What is recursion? Write a C program to find factorial of an integer using recursion. 1+5=6

Or,

Define function. Describe its general format. Explain function with argument and no return value with one example.

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