DCU-003-2031002   Seat No. _____

B. C. A. (Sem. I) (CBCS) (W.E.F. 2019) Examination

August - 2022

Problem Solving Methodologis & Programming in C : CS-02

(New Course)

Faculty Code : 003
Subject Code : 2031002

Time : **2½** Hours]   [Total Marks : **70**

Instruction : Write answers any five questions.

1 (a) Answer the Following :   4
     (1) Keyword can be used as identifier. [True / False].
     (2) Which character is used to terminate string ?
     (3) _____ is step by step sequence of simple logic.
     (4) How many tokens available in C?

   (b) Answer in Brief :   2
     What is variable ? Write down rules for naming variable.

   (c) Answer in Brief :   3
     Explain Types casting with example.

   (d) Answer in Detail :   5
     Explain Data types.

2 (a) Answer the Following :   4
     (1) Which variable is false in C language?
       (a) s1   (b) 1s
       (c) s_1   (d) s123
     (2) C language was designed and written by _____.
     (3) All pre - processor directives begins with _____.
     (4) The format specifier for float data type is _____.

   (b) Answer in Brief :   2
     Draw a flow chart to enter 2 values and swap it.

   (c) Answer in Brief :   3
     Briefly Explain pre-processor in C.

   (d) Answer in Detail :   5
     List out different operators and explain any three operators in Detail.

3 (a) Answer the Following : 4
(1) In switch case, if no any case value match with condition then statement following _____ will execute.
(2) List out Jumping statements in C.
(3) _____ statement can be used to terminate particular case.
(4) In Goto statement the label is followed by _____.

(b) Answer in Brief : 2
Explain for loop with syntax and example.

(c) Answer in Brief : 3
Explain nested if with syntax and example.

(d) Answer in Detail : 5
Explain switch case with syntax and example.

4 (a) Answer the Following : 4
(1) A loop within the loop is called _____.
(2) Which type of value can be specified in switch statement?
(3) _____ is known as exit control loop in C.
(4) _____ is used to represent false part in conditional Operator.

(b) Answer in Brief : 2
Explain ternary operators with example.

(c) Answer in Brief : 3
Write a program code to check number is Armstrong or not.

(d) Answer in detail : 5
Explain break and continue statements with example.

5 (a) Answer the Following : 4
(1) _____ is a default storage class.
(2) A _____ is a block of code to perform specific task.
(3) Rand() generates _____.
(4) Which header file is used with string functions?

(b) Answer in Brief : 2
Explain ceil() and floor() with Example.

(c) Answer in Brief : 3
Explain different memory allocation functions.

(d) Answer in Detail : 5
Explain call by value and call by reference with example.

6 (a) Answer the Following : 4
(1) UDF stands for _____.
(2) Write down syntax for calloc().
(3) _____() is used to return length of any given string.
(4) _____() is used to compare string arguments character by character.

(b) Answer in Brief : 2
Explain to upper() and to lower() with example.

(c) Answer in Brief : 3
Explain Recursion with suitable example.

(d) Answer in Detail : 5
Explain different storage classes in C.

7 (a) Answer the Following : 4
(1) Array is _____ data type.
(2) Array index always starts with _____.
(3) Array can be initialized at _____ & _____.
(4) Write down syntax for one dimension array.

(b) Answer in Brief : 2
Differentiate : structure and union.

(c) Answer in Brief : 3
Explain array of structure with suitable example.

(d) Answer in Detail : 5
Write a program code to perform addition of two matrix by example.

8 (a) Answer the Following : 4
(1) To access member of the structure _____ operator can be used.
(2) _____ keyword is used to create structure.
(3) Union is a _____ data type.
(4) Structure members are stored in _____ memory location.

(b) Answer in Brief : 2
Explain Nested structure.

(c) Answer in Brief : 3
Explain UDF with structure by example.

(d) Answer in Detail : 5
What is array ? Explain 1-d array with suitable example.

9 (a) Answer the Following : **4**
  (1) Which function is used to close the currently opened file?
  (2) argc means _____.
  (3) Feof() returns _____.
  (4) A value of pointer variable can be always _____ of another variable.

 (b) Answer in Brief : **2**
 Explain Pointer to pointer.

 (c) Answer in Brief : **3**
 Explain pointer within array with example.

 (d) Answer in Detail : **5**
 Write a program code to copy content of one file into another file.

10 (a) Objective Type Questions : **4**
  (1) _____() is used to move file pointer to the beginning of the file.
  (2) Ftell returns _____.
  (3) _____ is pointer array which points to each argument which is passed to main().
  (4) To read data from the particular file, the file must be open in _____ mode.

 (b) Answer in Brief : **2**
 Explain Poiner to structure with suitable example.

 (c) Answer in Detail : **3**
 Explain Fseek(), rename() and Rewind() with example.

 (d) Write note on : **5**
 Explain Command line Argument with example.

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