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PAR-003-1021002

Seat No. _____

P.G.D.C.A. (Sem. I) Examination

August / September - 2020

**CS-02 : Problem Solving Methodologies and
Programming in C**

Faculty Code : 003

Subject Code : 1021002

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 (A) Objective type questions: 4
- (1) What is the range of Character data type?
 - (2) Write 2 built-in functions of stdio.h
 - (3) Keywords are known as _____.
 - (4) _____ is an empty data type in C.
- (B) Attempt any **one** out of two. 2
- (1) Explain pre-processors.
 - (2) Explain Constants in C - Language.
- (C) Attempt any **one** out of two. 3
- (1) Draw a flowchart to find minimum value from the given three values.
 - (2) Explain Basic structure of C - Program.
- (D) Attempt any **one** out of two. 5
- (1) Explain Data types in C - Language.
 - (2) Draw a flowchart: Input 1 number and check whether it is divisible by 7 or not.
- 2 (A) Objective type questions: 4
- (1) Which statement is known as branching statement?
 - (2) Which operators are known as Conditional operators?
 - (3) Uses of Break statement.
 - (4) Syntax of for loop.
- (B) Attempt any **one** out of two : 2
- (1) Uses of ternary operator.
 - (2) Explain Continue statement.

- (C) Attempt any **one** out of two : 3
 (1) Explain jumping statements.
 (2) Explain switch... case, in brief with an example.
- (D) Attempt any **one** out of two : 5
 (1) Print & calculate addition, multiplication & division of two values in one program using if() statement.
 (2) Explain "While" loop with an example.
- 3 (A) Objective type questions: 4
 (1) Toupper() is not used to convert character into upper case. State the statement is True/False.
 (2) _____ function is used to count length of a string.
 (3) Strcpy() is used to compare strings. State the statement is True/False.
 (4) ceil (4.1) = _____.
- (B) Attempt any **one** out of two : 2
 (1) Briefly explain islower() and isalnum() with an example.
 (2) Explain getch() and getchar().
- (C) Attempt any **one** out of two : 3
 (1) Write a program: Input one character from the user. Check that character is digit or not.
 (2) Explain puts(), putchar() and putch() with an example.
- (D) Attempt any **one** out of two : 5
 (1) Write a program to ask a value from user and print its Factorial. (Using recursion).
 (2) What is UDF? Explain any two types of UDF with an example.
- 4 (A) Objective type questions: 4
 (1) Structure is not user defined data type. State the statement is True/False.
 (2) _____ keyword is used to create union.
 (3) Which operator is used to access the member of structure?
 (4) Array is user defined data type. State the statement is True/False.

- (B) Attempt any **one** out of two : 2
 (1) Explain 2D array.
 (2) Explain about union with its syntax.
- (C) Attempt any **one** out of two : 3
 (1) Explain array within structure.
 (2) Accept 9 numbers from user and print it in form of matrix. (3 X 4 matrix)
- (D) Attempt any **one** out of two : 5
 (1) Input 5 numbers in array and print positive numbers.
 (2) Create a structure named xyz that have member variable num. Ask 5 values from user and display its total on screen.
- 5 (A) Objective type questions: 4
 (1) What are Pointers.
 (2) _____ operator use to declare pointer.
 (3) Syntax of fopen().
 (4) Syntax of fprintf().
- (B) Attempt any **one** out of two : 2
 (1) Explain Pointer to Variables.
 (2) Explain putw() and fseek().
- (C) Attempt any **one** out of two : 3
 (1) Explain Pointers within structure.
 (2) Explain command line arguments.
- (D) Attempt any **one** out of two : 5
 (1) Explain Pointer to Array with example.
 (2) Write a program to count number of character in file.
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