Seat No.: __2644__   Enrolment No. 102CTBMCS2122038

NATIONAL FORENSIC SCIENCES UNIVERSITY
B.Tech. – M.Tech. Computer Science and Engineering (Cyber Security)
Semester - I - March-2022

Subject Code: CTBTCSE S1 P4   Date: 17/03/2022
Subject Name: Fundamentals in Computer Programming with C
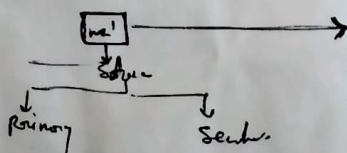**Time:**   **Total Marks: 100**

Instructions:
1. Write down each question on separate page.
2. Attempt all questions.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

Q.1	**(a)**	What is Computer? Draw block diagram of computer System and explain it.	10
	(b)	What is Operating System? Explain functions of Operating System	05
	(c)	Write an algorithm and Draw a flowchart to find simple interest	05

OR

	(c)	Write an algorithm and Draw a flowchart to convert temperature from Fahrenheit to Centigrade	

$SI = \dfrac{P \times r \times t}{100}$

Q.2	**(a)**	Explain different type of operators used in C language with their precedence and associativity.	10
	(b)	Define (A) Token (B) Identifier (C) Constant (D) Type casting (E) Storage class	05
	(c)	Write a C program to swap the values of two variables without using third variable.	05

OR

	(c)	What is type conversion? Explain implicit type conversion and explicit type conversion with example.	

Q.3	**(a)**	What do you understand by looping? Explain different types of loops in C with example	10
	(b)	Write a C Program to print 1 to 20 using While statement.	05
	(c)	Explain if...else and else if ... ladder with example.	05

OR

	(c)	State the syntax of Switch-case statement. Explain it with appropriate example.	

Q.4	**(a)**	What are arrays? Explain two Dimensional and multidimensional array with example	10

1

(b) What is Structure? How to define and access elements of structure? **05**
Explain with complete example programme.

(c) Explain gets() and puts() with example **05**

OR

(c) Explain strcpy() and strcmp() with example

Q.5 (a) What is UDF? Discuss categories of UDF with example **10**

(b) Explain recursion function with example **05**

(c) Differentiate:- Call by Value V/s Call by reference **05**

OR

(c) Write a programme to pass entire array to UDF and count and print
how many numbers are positive, negative and zero