Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE/PDDC- SEMESTER– 1st / 2nd • (SPFU) EXAMINATION – WINTER 2018

Subject Code: CPU002   **Date:03/01/2019**
Subject Name: Computer Programming and Utilization-2
Time: 2:30 PM to 5:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	What is software? Explain different types of software.	**07**
	(b)	Write an algorithm to check whether a number is Prime. Also draw the flow chart.	**07**
Q.2	**(a)**	Explain C tokens with suitable examples.	**07**
	(b)	Write a menu driven C program for simple calculator. Also draw flowchart.	**07**
Q.3	**(a)**	Explain different type of functions used in C language. Write a program using function to find factorial of the given number.	**07**
	(b)	What is recursion? Write the recursion code to find the factorial of a given number.	**07**
Q.4	**(a)**	Define an array. Explain one, two and multidimensional arrays.	**07**
	(b)	Write a C program to sort the array elements in acceding order.	**07**
Q.5	**(a)**	Write a C program to print the following pattern. 1 2 1 3 2 1 4 3 2 1	**07**
	(b)	What is Decision making Statement? List out different decision making statements available in C and explain each with example.	**07**
Q.6	**(a)**	What is file? Explain various file handling operations in C with example.	**07**
	(b)	What is Dynamic Memory Allocation? List out the differences between Static Memory allocation and Dynamic Memory allocation.	**07**
Q.7	**(a)**	How to initialize pointer? Explain arrays of Pointer using suitable sample program.	**07**
	(b)	Write a program to swap two numbers using function with two pointers as arguments.	**07**

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