Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–1/2 EXAMINATION – WINTER 2017

Subject Code: 110003   **Date: 05/01/2018**

Subject Name: Computer Programming & Utilization

Time: 10:30 AM TO 01:00 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)**	Differentiate between Algorithm and Flowchart. Draw a flowchart to print the largest digit among three integer digits.	**07**
	(b)	What is type casting and enumerated data type? Write a C program that demonstrates the use of type casting.	**07**
Q.2	**(a)**	Explain different operators in C.	**07**
	(b)	With appropriate examples explain different tokens used in C.	**07**
Q.3	**(a)**	Write a program to print Fibonacci series.e.g.0, 1, 1, 2, 3, 5, 8, 13.	**07**
	(b)	Explain break, continue and goto statements. Write a program to sum 1 to n numbers using goto statement.	**07**
Q.4	**(a)**	Write a program to check whether a number is a perfect number or not.(e.g. 123 is a perfect no i.e.1+2+3=1*2*3)	**07**
	(b)	Write a menu driven program for simple calculator using switch-case statement.	**07**
Q.5	**(a)**	Define an array. Write a program to sum and average an array of 10 integer numbers.	**07**
	(b)	Explain declaration and initialization of one dimensional, two one dimensional and multi-dimensional arrays.	**07**
Q.6	**(a)**	Differentiate between function call by value and call by reference giving examples of each.	**07**
	(b)	Explain in detail Dynamic memory allocation.	**07**
Q.7	**(a)**	Differentiate between Structure and Union giving examples.	**07**
	(b)	Explain the following File Handling functions :(i) fseek( ) (ii) ftell( ) (iii)rewind( ) (iv) feof( ) (v) fputc( ) (vi) remove( ) (vii) fflush( )	**07**

****