GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM- I / II Examination-Dec.-2011

Subject code: 110003   **Date: 27/12/2011**
Subject Name: Computer Programming and Utilization
Time: 10.30 am -1.00 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)**	Answer the following.	**12**
		(i) Explain printf() and scanf() giving their syntex.	
		(ii) What is recursion? Explain it with suitable example.	
		(iii) Write short note on Pointer.	
		(iv)Explain switch…case statement.	
	(b)	What is Algorithm?	**02**
Q.2	**(a)**	Explain various symbols used in Flowchart and draw the flowchart for finding Smallest number out of three given numbers.	**07**
	(b)	Write a program in C to generate Fibonacci series like following: 1, 1, 2, 3, 5, 8, 13 … Generate 20 such numbers.	**07**
Q.3	**(a)**	Draw the Block diagram of Computer System and explain.	**07**
	(b)	Write a program to display following pattern using nested for loops.	**07**

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Q.4	**(a)**	Explain various operators used in C language.	**07**
	(b)	Explain how string is defined in C. Write user defined functions for the following:	**07**
		(i) strlen() : to find length of string.	
		(ii) strcat() : to concate two strings.	
Q.5	**(a)**	Write a C program to Add two 3 X 3 Matrix.	**08**
	(b)	Define: Software, Hardware, Higher level Language, Operating System.	**06**
Q.6	**(a)**	Write a C program to read 10 numbers from user and find Sum, Maximum and Average of them.	**08**
	(b)	What is used defined function? Explain types of functions with example.	**06**
Q.7	**(a)**	What is structure? Explain with example how to declare a structure and how to initialize it.	**04**
	(b)	Write short notes on following (Any Two).	**10**
		(i) File Operations in C.	
		(ii) Data types in C.	
		(iii)Scope and Lifetime of Variable.	

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