Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. E. - SEMESTER –I • EXAMINATION – WINTER 2012

Subject code: 110003   **Date: 28-01-2013**
Subject Name: Computer Programming & Utilization
Time: 10.30 am – 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		Answer the following.	**14**
		(i)Explain the primary data types used in C.	
		(ii)Explain switch…case statement with brief example.	
		(iii)Explain the difference between while and do..while statement.	
		(iv)What is String? Explain any four string handling functions in C.	
Q.2	(a)	Draw the Block diagram of Computer System and explain.	**7**
	(b)	Write a program to display following pattern using nested for loops.	**7**

      1
      1   3
      1   3   5
      1   3   5   7
      …
      For n lines.

Q.3	(a)	Write a C program to check whether the given number is Prime or not.	**7**
	(b)	Write a C program to read 10 numbers from user and store them in an Array. Display Sum, Minimum and Average of the numbers.	**7**
Q.4	(a)	Write a C program to Multiply two 3 X 3 Matrix. Read Two matrices from the user.	**8**
	(b)	Explain the following terms in brief: Operating System, Compiler, Global Variable, Header Files	**6**
Q.5	(a)	Explain various operators used in C language.	**7**
	(b)	What is Pointer in C? Explain its advantages. Also write a function to do swapping of two elements using pointer. Call this function in main().	**7**
Q. 6	(a)	Explain various symbols used in Flowchart and draw the flowchart for finding Factorial of a number given by user.	**7**
	(b)	Write short notes on following.	**7**
		(i) File Operations in C.	
		(ii) Categories of Functions.	
Q.7	(a)	What is structure in C? Define a structure named "Student" with roll_no, name and percentage as members. Read data of 5 students from user and display them in proper format.	**7**
	(b)	Write short notes on following:	**7**
		(i) Nested if..else statement.	
		(ii) Use of break and continue statement.	

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