Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-I • EXAMINATION – WINTER • 2015

Subject Code: 2610001 Date: 22-12-2015 Subject Name: Fundamentals of Programming			
Tiı		0:30 am - 01:00 pm Total Marks: 70	
	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Write down various symbols of flow chart? Draw a flowchart to find maximum	07
	(b)	among three numbers. Differentiate between following a) Compiler and interpreter	03
		b) Symbolic constant and const variablec) L-value and R-value	02 02
Q.2	(a)	Compare if else leaders and switch case. Can we convert every if else code into switch case? Justify.	07
	(b)	Differentiate between following	0.2
		(i) Break and continue(ii) Entry control loop and exit control loop	03 04
		OR	
	(b)	Write a program to print following pattern 1 12 123 1234 12345	07
Q.3	(a)	Explain following terms with example (i) Function prototype (ii) Function definition (iii) Actual and formal parameter	02 02 03
	(b)	What is pointer? Explain call by value and call by reference with the help of suitable example.	07
		OR	
Q.3	(a)	How array name is differing from pointer? Write down various applications of pointers.	07
	(b)	Write a program to print all the prime numbers between 1 and 100 in file using user define function.	07
Q.4	(a) (b)	Explain all Storage classes with the help of example. How can we initialize 2-D array? Write a program to add two matrices using user define function.	07 07
_		OR	_
Q.4	(a) (b)	Compare recursion and iteration with the help of suitable example. Explain various dynamic memory allocation functions in detail.	07 07

Q.5	(a)	Differentiate between	
_		(i) Structure and union	03
		(ii) int $*a[2]$ and int $(*a)[2]$.	04
	(b)	Explain various File opening modes in details.	07
		OR	
Q.5	(a)	What is Linked List? How it is differ from array? Write a program to add node at last in the linked list.	07
	(b)	Differentiate between macro and function with the help of suitable example.	07
