Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER–I • EXAMINATION – SUMMER • 2014

Subject Code: 2610001 **Date: 12-06-2014**

Subject Name: Fundamentals of Programming

Time: 10:30 am - 01:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Define following terms. (1) Token (2) Constant (3) Linked list (4) Union (5) Identifier (6) String (7) Variable	**07**
	(b)	What is a structure? How do we declare and access structure variables? Explain with example program.	**07**
Q.2	**(a)**	What is an array? What does an array name signify? Explain 1-D and 2-D arrays with suitable example program.	**07**
	(b)	Write a detailed note on storage classes.	**07**
		OR	
	(b)	Explain in detail the data types available in C.	**07**
Q.3	**(a)**	Explain enum with example.	**05**
	(b)	Differentiate between 'break' and 'continue'.	**02**
	(c)	What are control statements in C? Explain all the looping constructs.	**07**
		OR	
Q.3	**(a)**	Explain Bitfield with suitable example.	**05**
	(b)	Differentiate between 'compiler' and 'interpreter'.	**02**
	(c)	What is conditional branching statement? Explain if, if-else, if-else-if ladder.	**07**
Q.4	**(a)**	Write an algorithm and draw a flow chart to find the maximum number out of three given numbers.	**07**
	(b)	Discuss dynamic memory allocation in detail. Differentiate between static memory allocation and dynamic memory allocation.	**07**
		OR	
Q.4	**(a)**	What is type conversion? Explain implicit and explicit type conversion with example.	**07**
	(b)	What is a macro? Differentiate between macro and function.	**04**
	(c)	What is preprocessor directive? Explain any two preprocessors with their usage.	**03**
Q.5	**(a)**	Explain getch( ), getche( ), getchar( ).	**03**
	(b)	What is command line argument? How it can be passed to a C program?	**04**
	(c)	Write a program to get two file names from command prompt and copy first file (source file) to second file (destination file).	**07**
		OR	
Q.5	**(a)**	Explain following functions. (1) strcmp( ) (2) strlen( ) (3) strrev( ) (4) strcat( ) (5) strcpy( )	**05**
	(b)	Explain various file opening modes.	**04**
	(c)	Define pointer. Explain array of pointers with suitable example.	**05**

****