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Seat No.:	Enrolment No.
Jeal Me	Emoment no.

Subject Code: 2610001

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-I • EXAMINATION – WINTER 2013

Date: 20-12-2013

•	e: 0	2:30	ne: Fundamentals of Programming) pm TO 05:00 pm Total Marks: 70	0
	1. 2.	Att Ma	empt all questions. ke suitable assumptions wherever necessary. ures to the right indicate full marks.	
Q.1		(a)	(i) What does a Header file consist of?(ii) Differentiate break and continue.(iii) Differentiate formal and actual parameters.(iv) Which storage class helps in faster execution of a program? How?	01 02 02 02
		(b)	(i) Discuss the Advantages and Limitations of Flow chart.(ii) Compare Array and Linked list.	04 03
Q.2	,	(a)	(i) What is Bitwise Operators? Explain any one operator with example.(ii) How to define enumerated data type? Give example.	04 03
		(b)	(i) State the arguments that are passed in main() function. Discuss significance of each argument.(ii) Write short notes on typecasting.	04 03
		(b)	(i) What do you mean by preprocessor directives? Discuss unconditional directives with example. (ii) What is an Array? How to initialize 1D and 2D Array?	04 03
Q.3		(a)(b)	(i) List and Describe any 2 Storage Classes in C.(ii) Differentiate User-defined Function and Built-in Function.Mention the Advantages of Pointers. Write a C program to sort an array using Pointers.	04 03 07
Q.3		(a)	OR (i) Define recursion. Discuss the advantages of Recursion and give an	04
		(b)	example. (ii) Differentiate Function Prototype and Function Definition. What is a Pointer? How pointers can be used for Call by reference parameter passing mechanism? Give example.	03 07
Q.4		(a)	Construct an array of structure called 'student'. The data members are Name, Rollno, Class, Grade and Percentage of mark. Read n student's details and conduct a "linear search" to print the details of the student, given a particular Rollno as the key.	07
	(b)	Write a program to copy a text file which accepts source and destination file name from command line arguments. OR	07	
Q.4		(a)	Explain structure variable in C language with syntax and example. How it differs from Union? Explain passing structure elements to function by	07
		(b)	taking suitable example. List the File Opening Modes with their purpose. Write a program to	07

append data in an existing file.

- Q.5 (a) Write a C program to compare two files specified by the user, 07 displaying a message indicating whether the files are identical or different.
 - (b) Define Linked List. Give the functions for the following using Linked 07 List:
 - i. Inserting a new node at the beginning
 - ii. Inserting a new node after a specific position

OR

- Q.5 (a) Differentiate Dynamic Vs Static Memory allocation. Explain calloc() 07 and malloc() with an example.
 - (b) Mention the types of Linked List. Give a function to insert a new node of after a specified key node.
