Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER – I • EXAMINATION – SUMMER - 2017

Subject Code: 2610001 **Date: 15-06-2017**

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)**	Answer the following questions. (1) Why C language is called a Procedural Language? (2) What is pointer? How it is different from normal variable. (3) What is String in C? How to store string data in C language? (4) What is function prototype in C? Is it compulsory to define in program? (5) What is the concept of pointer to pointer? (6) How Enumeration data type is used in C language? (7) What is the use of FILE pointer in file handling?	**07**
	(b)	Differentiate Array and Linked list.	**07**
Q.2	**(a)**	Explain different decision making statements of C with examples.	**07**
	(b)	Define term: Identifier & Keywords. Explain different rules for identifier declaration.	**07**
		OR	
	(b)	What is an Algorithm? Explain its features with suitable example.	**07**
Q.3	**(a)**	What is function? Explain user defined function in details with UDF of factorial calculation of any number.	**07**
	(b)	Explain Entry Control & Exit Control loop in details with syntax, use and example.	**07**
		OR	
Q.3	**(a)**	What is Preprocessor? Explain C preprocessor in detail with example.	**07**
	(b)	What do you mean by dynamic memory allocation? Explain two different functions for that with suitable example.	**07**
Q.4	**(a)**	Draw a flow chart & write a C Program which verify that, whether enter number is Armstrong number or not.	**07**
	(b)	Write short note on Structure of C language with concept of nested structure. How is it different from Union?	**07**
		OR	
Q.4	**(a)**	Draw a flow chart & write a C Program which calculate sum of all digits of given any number.	**07**
	(b)	What is storage class? List out different storage class with explanation.	**07**
Q.5	**(a)**	What is command line argument? How it is used in c program? Explain in details with example.	**07**
	(b)	Explain different file opening mode available in C with suitable example.	**07**
		OR	
Q.5	**(a)**	Explain fprintf() and fscanf() function with syntax , use and example.	**07**
	(b)	What is linked list? Explain how to add and delete a node after a particular node with example.	**07**

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