

GUJARAT TECHNOLOGICAL UNIVERSITY**MCA - SEMESTER– II EXAMINATION – WINTER 2019****Subject Code: 3620001****Date: 18/12/2019****Subject Name: Fundamental of Programming – II****Time: 02:30 PM TO 05:00 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 question. **07**
- i. What do you mean by Call by reference?
 - ii. What is Enumeration?
 - iii. What is Null Pointer?
 - iv. What is Memory Leak
 - v. How can we use feof()?
 - vi. Which operator is used to access the member of structure using pointer.
 - vii. What do you mean by argv[]?
- (b)** Explain Pointer arithmetic in detail with example. **07**
- Q.2 (a)** Write a short note on: Offsetting a Pointer & Const Qualifier. **07**
- (b)** Give the difference between: Array of Pointer & Pointer to an Array. **07**
- OR**
- (b)** Write a program in C to find whether the given string is palindrome or not using pointer and user define function. **07**
- Q.3 (a)** What do you mean by Dynamic Memory Allocation? Discuss various function used for Dynamic Memory Allocation. **07**
- (b)** Describe the difference between Structure and Union with example. **07**
- OR**
- Q.3 (a)** How to declare, initialize and access member of structure? Explain in detail with example. **07**
- (b)** Explain the concept of Bitfields with example. **07**
- Q.4 (a)** What is a file in C? Explain the file opening functions with various modes used in C programming with example. **07**
- (b)** A file named 'data' contains a series of integer number. Write a C program to read these numbers and then write all odd number to a file named 'odd' and all even numbers to a file named 'even'. **07**
- OR**
- Q.4 (a)** Explain different functions to access files randomly in detail with example. **07**
- (b)** Discuss the various advantages and disadvantages of Doubly Linked List. **07**
- Q.5 (a)** Write an algorithm to deletion of a node from a Singly Link List. **07**
- (b)** Describe different applications of a Linked List in detail. **07**
- OR**
- Q.5 (a)** What do you mean by Preprocessor? Write and explain any three preprocessor directives used in C. **07**
- (b)** Explain different Bitwise Operators used in C programming in detail with example. **07**
