

GUJARAT TECHNOLOGICAL UNIVERSITY**MCA - SEMESTER- 2 EXAMINATION – WINTER 2018****Subject Code: 3620001****Date: 01-01-2019****Subject Name: Fundamental of Programming – II****Time: 02.30 pm to 5.00 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 is Pointer?
 - ii. What is Bitfields?
 - iii. Define : call by reference.
 - iv. The bitwise AND operator is used for _____.
 - v. _____ Operator used to access the value of the variable pointed by a pointer.
 - vi. What is the use of feof()?
 - vii. Differentiate: Text file & Binary File.
- (b)** Differentiate: Pointer to an Array & Array of Pointer. **07**
- Q.2 (a)** What is Dynamic Memory Allocation? Explain various functions used in Dynamic Memory Allocation. **07**
- (b)** Write a short note on: Null Pointer & Void Pointer. **07**
- OR**
- (b)** Write a short note on: Memory Leak & Memory Corruption. **07**
- Q.3 (a)** Write a C program to concatenate two strings using pointer and user define function. **07**
- (b)** What do you mean by Structure? What is difference between array of structure and structure of array? **07**
- OR**
- Q.3 (a)** How can we declare, access and store value in to structure variables? Explain with example. **07**
- (b)** How structure and Union are differing? Discuss it in detail with example. **07**
- Q.4 (a)** Discuss different input and output functions of file handling used in C Programming. **07**
- (b)** Write a C program to merge two files into the third file. **07**
- OR**
- Q.4 (a)** Discuss various functions to access files randomly in brief with example. **07**
- (b)** Write an algorithm to insert a node into Singly Link List. **07**
- Q.5 (a)** What do you mean by Linked List? Discuss the various advantages and disadvantages of Linked List. **07**
- (b)** Discuss with figure and compare: Doubly Linked List and Circular Doubly Linked List. **07**
- OR**
- Q.5 (a)** Describe Preprocessor with at least three preprocessor directives with example. **07**
- (b)** Discuss Command Line Argument in detail. Also write a C program using Command Line Argument. **07**
