

GUJARAT TECHNOLOGICAL UNIVERSITY**MCA - SEMESTER-I • EXAMINATION – WINTER • 2014****Subject Code: 2610001****Date: 23-12-2014****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)** What do you mean by structured Programming? Describe the properties of Structured programming. Also explain the Process of programming. **07**
- (b)** What is Function? Why function is needed? Explain various component of function with its syntax. **07**
- Q.2 (a)** List out the different Storage classes available in C programming Language? Discuss all the storage classes with example. **07**
- (b)** Discuss the Process of compilation with its architecture in detail **07**
- OR**
- (b)** Distinguish between the following: **07**
- (i) do-while and while loop
- (ii) break and continue
- Q.3 (a)** How can we manage the string in C? Explain various string manipulation functions available in C Language with example. **07**
- (b)** What is Dynamic Memory allocation? Explain various function used for Dynamic memory Allocation with suitable example. **07**
- OR**
- Q.3 (a)** Explain the concept Pointer to an Array and Array of Pointer with example. **07**
- (b)** What is structure? How can we declare a structure and structure variable? How can we access the member of structure? Give suitable example. **07**
- Q.4 (a)** Write a C program using pointer to read an array of integers and print its elements in reverse order. **07**
- (b)** Write a short note on following : **07**
- (i) Enumerated data types.
- (ii) Union.
- OR**
- Q.4 (a)** What do you mean by random access to files of record? Explain the functions which are used for random access to files of record with example. **07**
- (b)** What is bitwise operator? Describe the Bitwise operators used in C in detail. **07**
- Q.5 (a)** Define Preprocessor directive. Discuss any three preprocessor directives with suitable example. **07**
- (b)** What do you mean by Singly link list? Write a C program to create a singly link list of integer. **07**
- OR**
- Q.5 (a)** Write a C program to copy one file in to another file using command line arguments. **07**
- (b)** Discuss file opening modes used in C programming language. Write a C program to append data in existing given file. **07**
