

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER– I • EXAMINATION – WINTER • 2014

Subject Code: 610001**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 is Procedure Oriented Programming Language (POPL)? What are the advantages of POPL? **07**
- (b)** Explain various types of loops used in programming languages. **07**
- Q.2 (a)** How switch keyword is used in programming language? Explain with suitable example. **07**
- (b)** Explain use of strcat(), strcmp() and strcpy() functions with proper example. **07**
- OR**
- (b)** What is an array? How memory will be allocated for the array? Explain with proper example. **07**
- Q.3 (a)** Explain increment, decrement and conditional operators with example. **07**
- (b)** List advantages of function. Explain various types or category of functions. **07**
- OR**
- Q.3 (a)** Explain bitwise operators with proper example. **07**
- (b)** What is automatic, external, static and register variable? Explain with proper example. **07**
- Q.4 (a)** What is structure within structure? Where it is used? Explain with proper example. **07**
- (b)** What is recursion? Write a recursive function to add first n number, where n is given by the user. **07**
- OR**
- Q.4 (a)** What is the preprocessor? What task does it perform? Explain in details. **07**
- (b)** Write a programme to add two matrix using pointers. **07**
- Q.5 (a)** Explain various file open modes in details. **07**
- (b)** What is singly link list? Write a programme to add and delete node from the singly link list. **07**
- OR**
- Q.5 (a)** Write a command line programme which will do the addition, subtraction, multiplication and division of the given two numbers. **07**
- (b)** Write a programme to find the number of characters and words from the given file. **07**
