

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-I • EXAMINATION – SUMMER • 2014

Subject Code: 2610001

Date: 12-06-2014

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)** Define following terms. **07**
(1) Token (2) Constant (3) Linked list (4) Union (5) Identifier
(6) String (7) Variable
- (b)** What is a structure? How do we declare and access structure variables? Explain with example program. **07**
- Q.2 (a)** What is an array? What does an array name signify? Explain 1-D and 2-D arrays with suitable example program. **07**
- (b)** Write a detailed note on storage classes. **07**
- OR**
- (b)** Explain in detail the data types available in C. **07**
- Q.3 (a)** Explain enum with example. **05**
- (b)** Differentiate between 'break' and 'continue'. **02**
- (c)** What are control statements in C? Explain all the looping constructs. **07**
- OR**
- Q.3 (a)** Explain Bitfield with suitable example. **05**
- (b)** Differentiate between 'compiler' and 'interpreter'. **02**
- (c)** What is conditional branching statement? Explain if, if-else, if-else-if ladder. **07**
- Q.4 (a)** Write an algorithm and draw a flow chart to find the maximum number out of three given numbers. **07**
- (b)** Discuss dynamic memory allocation in detail. Differentiate between static memory allocation and dynamic memory allocation. **07**
- OR**
- Q.4 (a)** What is type conversion? Explain implicit and explicit type conversion with example. **07**
- (b)** What is a macro? Differentiate between macro and function. **04**
- (c)** What is preprocessor directive? Explain any two preprocessors with their usage. **03**
- Q.5 (a)** Explain getch(), getche(), getchar(). **03**
- (b)** What is command line argument? How it can be passed to a C program? **04**
- (c)** Write a program to get two file names from command prompt and copy first file (source file) to second file (destination file). **07**
- OR**
- Q.5 (a)** Explain following functions. **05**
(1) strcmp() (2) strlen() (3) strrev() (4) strcat() (5) strcpy()
- (b)** Explain various file opening modes. **04**
- (c)** Define pointer. Explain array of pointers with suitable example. **05**
