

**GUJARAT TECHNOLOGICAL UNIVERSITY****MCA - SEMESTER– I EXAMINATION – WINTER 2019****Subject Code: 3610001****Date: 18/12/2019****Subject Name: Fundamentals of Programming-1****Time: 10:30 AM TO 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) (1) Compare break and continue statements. **03**  
(2) Discuss equality operator. **02**  
(3) Explain declaration of an array. **02**  
(b) (1) Explain conditional (Ternary) operator. **03**  
(2) Discuss dangling else problem. **02**  
(3) Discuss structure of function definition. **02**
- Q.2** (a) Write a program to determine whether an entered character is vowel or not using switch statement. **07**  
(b) List and explain basic data types in C. **07**  
**OR**  
(b) Discuss process behind compilation and execution of C program. **07**
- Q.3** (a) Explain type casting with suitable example. **07**  
(b) Discuss register storage class with example. **07**  
**OR**
- Q.3** (a) Explain structure of C program. **07**  
(b) Explain Binary search algorithm. **07**
- Q.4** (a) Discuss call by value and call by reference. **07**  
(b) Write a program to convert characters of strings to Uppercase. **07**  
**OR**
- Q.4** (a) Write a program to convert decimal number to binary equivalent. **07**  
(b) Write short note on array of strings. **07**
- Q.5** (a) Discuss working of recursive function with example. **07**  
(b) Explain sizeof operator. What is the need to use it? **07**  
**OR**
- Q.5** (a) Write a program to find duplicates in array of integers. **07**  
(b) Write short note on Sparse matrix. **07**

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