

Enrolment No. /Seat No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED – SEMESTER I- EXAMINATION –SUMMER-2025

Subject Code: 2618603

Date: 09/06/2025

Subject Name: Fundamental of Programming–I

Time:02:30 PM TO 05:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

- Q.1** (a) What is algorithm? Write an algorithm to find whether a given number is prime or not. **07**
- (b) Define data types. Explain basic data types in detail. **07**
- Q.2** (a) Explain formatted input and output function with suitable example. **07**
- (b) What is flow chart? What are the standard symbols for drawing flowchart? Explain with an example. **07**
- OR**
- (b) Explain four storage classes of C. **07**
- Q.3** (a) What is an array? How can we use array? How can we initialize array? Explain with a suitable example. **07**
- (b) What is use of switch case? Explain with a proper example. **07**
- OR**
- Q.3** (a) What is type casting? Write its significance and purpose with suitable example. **07**
- (b) Write a program to display the following output **07**
- ```
1
2 2
3 3 3
4 4 4 4
```
- Q.4** (a) What is an operator? What are the different types of operators? Explain any two types of operators in detail. **07**
- (b) What is loop? How it is useful? Explain different types of loops. **07**
- OR**
- Q.4** (a) Write a C program to input 10 numbers and find maximum. **07**
- (b) Differentiate the following
1. Entry Control Loop and Exit Control Loop **04**
  2. Compiler and Interpreter **03**
- Q.5** (a) What is recursive function? Write a recursive function to find factorial of a number. **07**
- (b) What are the different types of functions? Explain with example. **07**
- OR**
- Q.5** (a) What is function? How a function is useful? Explain with a suitable example. **07**
- (b) What do you mean by scope and lifetime of a variable? Explain the types of scope. **07**

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