

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED– SEMESTER -I EXAMINATION –WINTER-2021

Subject Code: 2618603**Date: 19/03/2022****Subject Name: Fundamental of Programming–I****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) Do as Directed.**
1. What is the output: **01**

```
int main ( )
{
    printf ( “ %d ”, ‘A’);
    return 0;
}
```
 2. What is the output: **04**

```
int main ( )
{
    int no = 5;
    printf ( “ %d %d %d”, no++, no, ++no);
    return 0;
}
```
 3. What is the output: **02**

```
int main ( )
{
    float no = 10.25;
    float rem;
    rem = no % 2;
    printf ( “ %f ”, rem);
    return 0;
}
```
- (b) Do as Directed.** **07**
1. Define: Tokens.
 2. State the use of “sizeof()” Operator used in C Language.
 3. What do you mean by declaring a variable and defining a variable?
 4. What is the use of Linker?
 5. Differentiate between “=” and “==”.
 6. “\n” is used for _____ and “\0” is used for _____.
 7. Array index starts with 1 in C Language. (True/False with proper reason).
- Q.2 (a) What are data types? Explain basic data types in detail.** **07**
- (b) Explain different format specifier in printf(), along with few examples.** **07**
- OR**
- (b) What are operators? State different types of operators and explain prefix, postfix operator and relational operator.** **07**

- Q.3** (a) What is an algorithm? Write an algorithm to take 3 sides of a triangle as an input and check whether triangle can be drawn or not. **07**
(b) What do you mean by nested loop? Explain this concept using for loop with proper example. **07**

OR

- Q.3** (a) Explain conditional branching statement with the help of C Program. **07**
(b) What is a typecasting? Write its significance and purpose with suitable example(s). **07**

- Q.4** (a) What is a function? How it is used? What are its advantages? Write a program to find maximum for 3 numbers using function. **07**
(b) Write a program to display the following output using C Language. **07**
A
B C
D E F
G H I J

OR

- Q.4** (a) What is the use of switch case, explain with proper example. Also explain the use of default. **07**
(b) Write a program in C Language to accept 10 numbers from the user in an array and display their average. **07**

- Q.5** (a) What do you mean by scope and lifetime of a variable? Explain the types of scope. **07**
(b) Difference between: **07**
1. Entry control and exit control
2. Break and continue.

OR

- Q.5** (a) What is character array? How can we use it to handle string type data in C? Explain any four inbuilt string functions in brief. **07**
(b) 1. Differentiate between function prototype and function definition. **07**
2. State the rules of identifiers.
