

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.VOC. – SEMESTER 1 (NEW SYLLABUS) EXAMINATION- WINTER 2020**

**Subject Code: 1110203****Date: 06-03-2021****Subject Name: Programming in C****Time: 10:30 AM TO 12:30 PM****Total Marks: 50****Instructions:**

1. Attempt any FIVE questions out of EIGHT questions
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

|            |   | Marks     |
|------------|---|-----------|
| <b>Q.1</b> | (a) Explain basic structure of C program.   | <b>05</b> |
|            | (b) Answer the following questions.   | <b>05</b> |
|            | 1. Why C is called middle level language?   |           |
|            | 2. What is the use of printf( ) function?   |           |
|            | 3. A declaration int a, b; occupies how much memory?  |           |
|            | 4. The keyword <b>void</b> is a data type in C. True or False?  |           |
|            | 5. Like variables, constants have a type. True or False?  |           |
| <b>Q.2</b> | (a) Write a C program to find area of a circle.   | <b>05</b> |
|            | (b) Explain following operators with example.   | <b>05</b> |
|            | 1. Relational operator  |           |
|            | 2. Bitwise operator   |           |
| <b>Q.3</b> | (a) Write a C program to print the following pattern.   | <b>05</b> |
|            | (b) Explain nested if statement with suitable example.  | <b>05</b> |
|            | *<br>* *<br>* * *<br>* * * *  |           |
| <b>Q.4</b> | (a) Write a program to display multiplication table using for loop.   | <b>05</b> |
|            | (b) Give the difference between while loop and do..while loop.  | <b>05</b> |
| <b>Q.5</b> | (a) Explain following built-in string functions with suitable example.                                      | <b>05</b> |
|            | (b) Explain categories of user defined function.  | <b>05</b> |
|            | 1. strlen( ) 2. strev( )  |           |
| <b>Q.6</b> | (a) How can you initialize and declare the array? Explain in brief.   | <b>05</b> |
|            | (b) What is recursion? Explain with suitable example.   | <b>05</b> |
| <b>Q.7</b> | (a) Give the difference between structure and union.  | <b>05</b> |
|            | (b) Write a C program to copy the contents of one file into another.  | <b>05</b> |
| <b>Q.8</b> | (a) Explain various storage class used in C.  | <b>05</b> |
|            | (b) Write a C program that uses a table of integers whose size will be specified interactively at run time. | <b>05</b> |

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