

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA Integrated– SEMESTER –I EXAMINATION –SUMMER-2019

Subject Code:4410603**Date: 01-06-2019****Subject Name: Fundamentals of Programming-1****Time:10.30 am to 1.00 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. 07**
- (1) We can use the conversion specification _____ in scanf() to read whitespaces of text.
 - (2) The function that does not have any return type is declared as _____.
 - (3) The escape sequence character _____ causes the cursor move to the next line on the screen.
 - (4) _____ loop will definitely execute at least once even if condition is not satisfied.
 - (5) A variable declared inside a function is called _____.
 - (6) The _____ header file contains string manipulation functions.
 - (7) The _____ symbol is always the first and last symbol in a flowchart.
- (b) Define Following terms 07**
- (1) compiler
 - (2) External variable.
 - (3) control string
 - (4) goto statement
 - (5) interpreter
 - (6) if-else statement
 - (7) #include directive
- Q.2 (a) Write short note on structured programming. 07**
- (b) Differentiate between following**
- (1) while loop and do while loop **03**
 - (2) keyword and identifier **02**
 - (3) int main() and void main() **02**
- OR**
- (b) Differentiate between following**
- (1) scanf() function and getchar() function **02**
 - (2) primary data types and derived data types. **02**
 - (3) call by value and call by reference **03**
- Q.3 (a) What is operator? List types of operator in C. Explain any two in detail. 07**
- (b) Explain different types of specifiers for printf () function. 07**
- OR**
- Q.3 (a) What is switch statement? Explain using example. 07**
- (b) What is variable? Explain declaration and initialization of variable with example. 07**
- Q.4 (a) What is Array? Explain types of Array using example. 07**
- (b) What is function prototype,function definition and function call? Explain with example. 07**

OR

- Q.4** (a) What is a recursive function? Write a program to calculate factorial number. **07**
(b) Write a program in C to multiplication of two matrices. **07**
- Q.5** (a) What is string? Explain any 3 string handling function with example. **07**
(b) Write a program in C to check whether a number is prime number or not using the function. **07**

OR

- Q.5** (a) Explain the following. **07**
getch(), getchar(), gets(), putchar(), puts() function in C.
(b) Write a program in C to make such a pattern like a pyramid with number increased by 1. **07**

```
1
2 3
4 5 6
7 8 9 10
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