



**GIET UNIVERSITY, GUNUPUR – 765022**  
**B. Tech -- 1<sup>st</sup> Semester (2023-2024): CYCLE TEST - II**  
**BBSFS1050– Programming for Problem Solving**  
(Common to all branches)

Time: 1.30 hrs

Maximum: 30 Marks

**PART – A (2 x 5 = 10 Marks)**

<b>Q.1. Answer ALL questions</b>	<b>CO #</b>	<b>Blooms Level</b>
a. State the difference between recursive and iterative process	3	2
b. Write the syntax and example on function prototype declaration.	2	1
c. State the difference between formal parameters and actual parameters.	2	2
d. What is the difference between strcmp() and strncmp() functions with an example?	3	1
e. Distinguish local variable and global variable	1	2

**PART – B (10 x 2 = 20 Marks)**

<b>Answer ALL Questions</b>	<b>Marks</b>	<b>CO#</b>	<b>Blooms Level</b>
2.a. What are the function categories? Explain all the categories with suitable examples	5	2	2
b. Write a program to find the factorial of a given number using a recursive function.	5	3	2
<b>(OR)</b>			
c. Write a C program which contains three UDF's namely add(), subtract() and multiply(). Each function accepts two integers as their arguments and calculate and return the results.	5	3	2
d. Write a program to find the sum of series 1+2+3+4+....+10 using a recursive function.	5	3	2
3.a. Briefly explain all the storage classes and their characteristics.	5	4	2
b. Explain the string handling functions: strlen(), strcpy(). Write a program to test a string is palindrome or not.	5	3	2
<b>(OR)</b>			
c. Write a program to perform matrix multiplication.	5	4	2
d. Explain the string handling functions: strcat() and strrev(). Write a program to compare two strings and show whether they are equal or not.	5	3	2