PAPER ID-311065

Roll No:

B TECH
(SEM-I) THEORY EXAMINATION 2020-21
PROGRAMMING FOR PROBLEM SOLVING

Time: 3 Hours   *Total Marks: 100*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.   **Attempt *all* questions in brief.**   2 x 10 = 20

Q no.	Question	Marks	CO
a.	Write the fundamental data type in C Programming and its range.	2	1
b.	Write the algorithm for addition of two numbers.	2	1
c.	Define all Arithmetic operators.	2	2
d.	Explain the need of break in switch statement with example.	2	2
e.	Write the syntax of continue statement.	2	3
f.	What is the difference between while and do-while loop?	2	3
g.	Difference between structure and union.	2	4
h.	Define Sorting Algorithm with example.	2	4
i.	Define preprocessor and its usage in programming.	2	5
j.	Write the advantage for the use of Linked list.	2	5

SECTION B

2.   **Attempt any *three* of the following:**

Q no.	Question	Marks	CO
a.	Brief the Generations of the Programming languages with examples.	10	1
b.	What do you mean by Operands? Discuss the operator precedence and associativity of all the operators.	10	2
c.	Define recursive function? Write a program to find the factorial of a number with recursive function.	10	3
d.	Write the advantage of using array. Write the program for matrix multiplication of two matrix elements.	10	4
e.	Explain file handling and write a program for copying the content of one file into another file.	10	5

SECTION C

3.   **Attempt any *one* part of the following:**

Q no.	Question	Marks	CO
a.	Write the short notes on (i) Compiler (ii) Interpreter (iii) Linker (iv) Loader	10	1
b.	Brief the storage classes in C with proper example.	10	1

4.   **Attempt any *one* part of the following:**

Q no.	Question	Marks	CO
a.	Write a program to find out the greatest number out of three numbers.	10	2
b.	Explain different type of control statements used in c programming with example.	10	2

5.   **Attempt any *one* part of the following:**

Q no.	Question	Marks	CO
a.	Write a program to print the pattern: **** *** ** *	10	3
b.	Write a Program to find the entered number is Palindrome number or not.	10	3

6.   **Attempt any *one* part of the following:**

Q no.	Question	Marks	CO
a.	Write a program two find out the odd and even number from the array elements and its count.	10	4
b.	Explain the Selection sort with example.	10	4

7.   **Attempt any *one* part of the following:**

Q no.	Question	Marks	CO
a.	Explain dynamic memory allocation concept with proper example.	10	5
b.	Explain the different type of modes and I/O function in file handling.	10	5