



**ACE**  
Engineering College  
(with a Difference in Excellence)

An AUTONOMOUS Institution

Question Paper Code

CS203ES

ACE-R20

:

**Semester End Examination**  
**I B. Tech- II Semester- OCTOBER 2021**  
**PROGRAMMING FOR PROBLEM SOLVING**  
(common to EEE, CSE,IT,CSD)

Time: 3 Hours

Max. Marks: 70

H. T. No

*Answer any five full questions from the following. All Questions carry equal marks.*  
**M=Marks; CO=Course Outcomes; PO= Program Outcomes**

Q.No	Question	M	CO	PO
1.	Explain various types of operators supported by C language.	14	1	1,2
2.a)	Explain the steps involved in creating, compiling and executing a C Program.	10	1	1,2
b)	Explain various Storage classes supported by C language.	4	1	2
3 a).	Write a program to find the largest element in an Array of integer elements with step by step procedure and program.	10	3	3
b)	Write and explain the general format for declaring and accessing members of a structure.	4	3	2
4.	With the help of syntax and example program explain various string handling functions.	14	3	3
5.a)	Discuss in detail about the file positions functions.	4	4	2
b)	Write a 'C' program to count the number of words, vowels and consonants present in a file.	10	4	3
6. a)	Differentiate between Call by value and Call by reference.	4	5	1
b)	Write a program in C to calculate the sum of numbers from 1 to n using recursion.	10	5	3
7.	Write a C program to find the length of a given string without using built-in functions. Also check whether the given string is palindrome or not.	14	5	3
8.	Write a program to implement Insertion Sort with example program.	14	6	3