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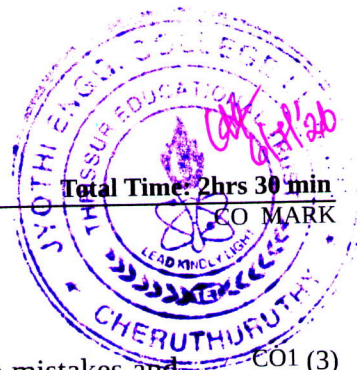
Name : _____



Jyothi Engineering College(Autonomous)
 B. Tech Degree S2 (S) Examination, June 2026 (2025 Scheme)

25EST204 - PROGRAMMING IN C

Total Mark: 60



PART A

(Answer All Questions. Each question carries 3 marks)

1. The following C program contains errors in its basic structure. Identify the mistakes and rewrite the program correctly.

```
#include stdio.h
main()
{
    printf("Hello World")
}
```

CO1 (3)
2. Differentiate between identifiers and variables in C. CO1 (3)
3. Use typedef to create a new data type for an integer and use it to declare and initialize two variables. CO2 (3)
4. Why is Bubble Sort called a stable sorting algorithm? CO2 (3)
5. Write the syntax for declaring and initializing a structure variable in C CO3 (3)
6. What are the advantages of using functions in a program? CO3 (3)
7. Give a real-life example where text files are preferred over binary files and explain why. CO4 (3)
8. What is a NULL pointer in C? Why is it used? Explain with an example. CO4 (3)

PART B

(Answer any one full question from each module, each question carries 9 marks)

Module - 1

9. Write a C Program to check if a given number is Armstrong number or not. CO1 (9)

OR

10. a) Explain the different types of constants in C with examples. CO1 (5)
 b) Write a C program to print the Fibonacci series upto n. CO1 (4)

Module - 2

11. Define a string in C? Develop an algorithm and write a C program to read a string and determine the number of vowels, consonants, and digits present in it. CO2 (9)

OR

12. a) Explain how a string palindrome can be checked logically with the help of a program (without using built-in functions). CO2 (5)
 b) Write the algorithm for linear search to find an element in an array. CO2 (4)

Module - 3

13. Explain all four storage classes with an example program.

CO3 (9)

OR

14. a) Write a program using a macro to calculate the area of a circle.

CO3 (5)

b) Define a function-like macro to calculate the cube of a number.

CO3 (4)

Module - 4

15. Write a C program to read n integers into an array, use a pointer to access and display all the array elements, find and display the sum of the array elements using pointer arithmetic.

CO4 (9)

OR

16. a) Write a C program using pointer to function to perform multiplication of two numbers.

CO4 (5)

b) Explain the calloc() function in C with syntax and example.

CO4 (4)
