



**EAST
POINT**

**COLLEGE OF ENGINEERING &
TECHNOLOGY**

An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi

USN

1 E P 2 4 E C 0 7

EPESK204E

Second Semester B.E. Degree Examination, July 2025

INTRODUCTION TO C PROGRAMMING

TIME:3 hrs.

Max.Marks:100

Note: 1. Answer any FIVE full questions, choosing ONE question from each MODULE

2. M: Marks, L: Bloom's level, C: Course outcomes.

| Module-1 | | M | L | C |
|----------|---|---|----|-----|
| Q.1 | a | 6 | L2 | CO1 |
| | b | 7 | L2 | CO1 |
| | c | 7 | L2 | CO1 |
| OR | | | | |
| Q.2 | a | 6 | L2 | CO1 |
| | b | 7 | L2 | CO1 |
| | c | 7 | L2 | CO1 |
| Module-2 | | | | |
| Q.3 | a | 6 | L3 | CO2 |
| | b | 7 | L3 | CO2 |
| | c | 7 | L3 | CO2 |
| OR | | | | |
| Q.4 | a | 6 | L3 | CO2 |
| | b | 7 | L3 | CO2 |
| | c | 7 | L3 | CO2 |
| Module-3 | | | | |
| Q.5 | a | 6 | L2 | CO3 |

| EPESK204E | | | | | |
|-----------|---|--|---|----|-----|
| | b | Summarize about parameter passing in functions. Write a C program to swap two numbers using call by value. | 7 | L2 | CO3 |
| | c | Illustrate the different types of storage classes in C with examples. | 7 | L2 | CO3 |
| OR | | | | | |
| Q.6 | a | Write a C program to accept n numbers in a single-dimensional array and find the largest and smallest number. Explain the logic. | 6 | L2 | CO3 |
| | b | Discuss how arrays can be passed to functions. Write a C function to compute the average of elements in an array. | 7 | L2 | CO3 |
| | c | Explain how two-dimensional arrays are declared and initialized. Write a program to add two 3×3 matrices. | 7 | L2 | CO3 |
| Module-4 | | | | | |
| Q.7 | a | Write a C program to perform string concatenation and string length operations without using library functions. Explain your logic. | 6 | L3 | CO4 |
| | b | Write a program to count the number of vowels, consonants, digits and special characters in a given string. | 7 | L3 | CO4 |
| | c | Explain how arrays of strings are declared and accessed in C. Write a program to sort an array of strings alphabetically. | 7 | L3 | CO4 |
| OR | | | | | |
| Q.8 | a | Write a C program to swap two numbers using pointers. Explain how the addresses and values are manipulated. | 6 | L3 | CO4 |
| | b | Write a program to read a string using pointers and count the number of words. | 7 | L3 | CO4 |
| | c | Explain how pointers are used to pass arguments to functions. Write a program to modify a variable inside a function using pointers. | 7 | L3 | CO4 |
| Module-5 | | | | | |
| Q.9 | a | Define a structure in C. How is it declared and initialized? Explain with an example. | 6 | L2 | CO5 |
| | b | Describe nested structures. How can a structure be used within another structure? Write a sample program. | 7 | L2 | CO5 |
| | c | Differentiate between structures and unions in C. Explain with suitable examples. | 7 | L2 | CO5 |
| OR | | | | | |
| Q.10 | a | Highlight the use structure. Write a program to define a structure called Book with members: title, author, pages, and price. Show how to declare and initialize a structure variable. | 6 | L2 | CO5 |
| | b | Outline array of structures. Write a program that stores and displays details (name, roll number, and marks) of 5 students using an array of structures. | 7 | L2 | CO5 |
| | c | Explain enumerated data types in C. Write an example program that uses an enum for the days of the week. | 7 | L2 | CO5 |
