

CBCS SCHEME

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BESCK204E

Second Semester B.E/B.Tech. Degree Examination, Dec.2024/Jan.2025 Introduction to C Programming

Time: 3 hrs.

Max. Marks:100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level, C: Course outcomes.

| Module – 1 | | | M | L | C |
|------------|----|--|---|----|-----|
| 1 | a. | With a neat diagram, explain the basic organization of a computer. | 6 | L2 | CO1 |
| | b. | Explain the different characteristic features of stored program concept. | 6 | L2 | CO1 |
| | c. | Explain the basic structure of a C program. | 8 | L2 | CO1 |
| OR | | | | | |
| 2 | a. | Explain the classification of computers. | 8 | L2 | CO1 |
| | b. | What is an identifier? What are the rules to be followed to form an identifier? | 6 | L2 | CO2 |
| | c. | Draw the flow chart to calculate the sum of first ten natural numbers. | 6 | L3 | CO2 |
| Module – 2 | | | | | |
| 3 | a. | Explain the different bitwise operators in C with an example for each. | 8 | L2 | CO2 |
| | b. | Write a program to find whether the given number is odd or even. | 5 | L3 | CO2 |
| | c. | Explain the switch statement with syntax and example. | 7 | L2 | CO2 |
| OR | | | | | |
| 4 | a. | Differentiate between while and do-while loops. | 6 | L2 | CO2 |
| | b. | Write program to check whether the given number is palindrome or not. | 8 | L3 | CO2 |
| | c. | Write a program to generate and print the first 'n' Fibonacci numbers. | 6 | L3 | CO2 |
| Module – 3 | | | | | |
| 5 | a. | What is a function? Why are functions needed? | 6 | L2 | CO5 |
| | b. | Explain the different methods of passing parameters to functions giving an example for each. | 8 | L3 | CO5 |
| | c. | Write a program to find the factorial of a number using recursion. | 6 | L3 | CO5 |
| 1 of 2 | | | | | |

OR

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|---|----|--|----|----|-----|
| 6 | a. | Discuss the different operations that can be performed on arrays. | 10 | L2 | CO3 |
| | b. | Write a program to sort the given 'n' elements in ascending order using bubble sort. | 10 | L3 | CO3 |

Module – 4

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|---|----|---|----|----|-----|
| 7 | a. | Explain the declaration and initialization of two-dimensional array with an example for each. | 8 | L2 | CO3 |
| | b. | Write a program to multiply two matrices. | 12 | L3 | CO3 |

OR

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|---|----|--|----|----|-----|
| 8 | a. | Explain the different functions used to read and write strings with an example for each. | 12 | L3 | CO3 |
| | b. | Write a program to find the length of a string without using library functions. | 8 | L3 | CO3 |

Module – 5

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|---|----|--|----|----|-----|
| 9 | a. | Explain the following string manipulation functions with an example : i) strcat() ii) strcmp() iii) strstr() iv) strcpy(). | 10 | L3 | CO3 |
| | b. | Define pointer. Explain with example the pointer declaration and initialization. | 5 | L2 | CO4 |
| | c. | Write a program to swap two numbers using pointer. | 5 | L3 | CO4 |

OR

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|----|----|---|----|----|-----|
| 10 | a. | Write a program to read and display the details of 'n' students using structure. The details include roll no, name, branch and marks. | 10 | L3 | CO4 |
| | b. | Write a program using pointers to compute the sum mean and standard deviation of all elements stored in an array of 'n' real numbers. | 10 | L3 | CO4 |
