

**THE KAVERY ENGINEERING COLLEGE**  
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

*Second Semester*

*Information Technology*

CS3251 - Programming in C

(Common to Computer Science and Engineering)

*Regulations - 2021*

*Duration : 3 Hrs*

*Maximum : 100 Marks*

*PART - A (ANSWER ALL QUESTIONS) (Marks 10\*2=20)*

| <i>Q.No</i> | <i>Questions</i>                                                    | <i>BLT</i> | <i>CO</i> | <i>Marks</i> |
|-------------|---------------------------------------------------------------------|------------|-----------|--------------|
| 1.          | Define a programming paradigm.                                      | RE         | 1         | 2            |
| 2.          | Summarize the types of C-operators.                                 | RE         | 1         | 2            |
| 3.          | Distinguish between One-Dimensional array & Two- Dimensional array. | AN         | 2         | 2            |
| 4.          | What is a binary search?                                            | RE         | 2         | 2            |
| 5.          | Infer the term "pointer". How will you declare it?                  | UN         | 3         | 2            |
| 6.          | Write the syntax for function declaration.                          | UN         | 3         | 2            |
| 7.          | What is structure? Write the syntax for the structure.              | UN         | 4         | 2            |
| 8.          | How to create a node in singly linked list?                         | UN         | 4         | 2            |
| 9.          | List out the various file handling functions.                       | UN         | 5         | 2            |
| 10.         | What is command line arguments? Give an example.                    | AN         | 5         | 2            |

*PART - B (ANSWER ALL QUESTIONS) (Marks 5\*13 = 65)*

| <i>Q.No</i> | <i>Questions</i>                                                                                                 | <i>BLT</i> | <i>CO</i> | <i>Marks</i> |
|-------------|------------------------------------------------------------------------------------------------------------------|------------|-----------|--------------|
| 11.         | a i Describe the structure of a C Program with an example.                                                       | RE         | 1         | 8            |
|             | ii Discuss about the preprocessor directives with examples.                                                      | RE         | 1         | 5            |
|             | Or                                                                                                               |            |           |              |
|             | b Explain the various decision-making statements with example.                                                   | UN         | 1         | 13           |
| 12.         | a Describe the initialization and declaration of 1-D array with an example.                                      | UN         | 2         | 13           |
|             | Or                                                                                                               |            |           |              |
|             | b Discuss the following string operation with examples.<br>(i)strlen() (ii)strcpy() (iii) strcat() (iv) strcmp() | UN         | 2         | 13           |
| 13.         | a Explain about math functions in detail.                                                                        | UN         | 3         | 13           |
|             | Or                                                                                                               |            |           |              |
|             | b Describe about pass by value and pass by reference with an example.                                            | UN         | 3         | 13           |
| 14.         | a Define structure in C. Specify pointer and structure with example.                                             | UN         | 4         | 13           |
|             | Or                                                                                                               |            |           |              |

|     |   |    |                                                                                                   |    |   |    |
|-----|---|----|---------------------------------------------------------------------------------------------------|----|---|----|
|     | b | i  | Discuss about singly linked list and operations.                                                  | UN | 4 | 7  |
|     |   | ii | Discuss about advantages and disadvantage of singly linked list.                                  | UN | 4 | 6  |
| 15. | a |    | What is a file? Explain the operations available in C language to handle files with their syntax. | UN | 5 | 13 |
|     |   |    | Or                                                                                                |    |   |    |
|     | b |    | Explain command line arguments with example.                                                      | UN | 5 | 13 |

*PART – C (Marks 1\*15 = 15)*

| <i>Q.No</i> | <i>Questions</i> |                                                           | <i>BLT</i> | <i>CO</i> | <i>Marks</i> |
|-------------|------------------|-----------------------------------------------------------|------------|-----------|--------------|
| 16.         | a                | Explain the various looping statements with an example.   | UN         | 1         | 15           |
|             |                  | Or                                                        |            |           |              |
|             | b                | Discuss about various types of operators with an example. | UN         | 1         | 15           |