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| **CO1** | Design and implement iterative and recursive algorithms with minimum complexity |
| **CO2** | Apply advanced features of C in solving problems |
| **CO3** | Implement data structures using C language |
| **CO4** | Write code using linear and non-linear data structure operations |
| **CO5** | Implement various sorting and searching techniques |
| **CO6** | Analyze and implement hashing techniques that solve in linear time |

**BL – Bloom’s Taxonomy Levels**

(L1- Remembering, L2-Understanding, L3-Applying, L4- Analysing, L5-Evaluating, L6-Creating)

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| **Q.No** | **Question** | **CO** | **BL** |
| 1 | Write a program to find the smallest of three integers using functions. | **CO2** | **L3** |
| 2 | Write a program to calculate area of a triangle using function. | **CO2** | **L3** |
| 3 | Write a program to find whether a number is divisible by two or not using functions. | **CO2** | **L3** |
| 4 | Write a program to print ‘Programming in C is Fun’ using pointers. | **CO2** | **L3** |
| 5 | Write a program to add two floating point numbers using pointers. | **CO2** | **L3** |
| 6 | Write a program to calculate area of a triangle using pointers. | **CO2** | **L3** |
| 7 | Write a program that reads an array of 100 integers. Display all the pairs of elements whose sum is 50. | **CO2** | **L3** |
| 8 | Write a program to interchange the second element with the second last element using array. | **CO2** | **L3** |
| 9 | Write a program to add two 3 \* 3 matrix using array. | **CO2** | **L3** |
| 10 | Write a program to create a structure with the information given below. Then, read and print the data.  (a) Student  (b) Roll Number  (c) Name  (i) First name  (ii) Middle Name  (iii) Last Name  (d) Sex  (e) Date of Birth  (i) Day  (ii) Month  (iii) Year  (f) Marks  (i) English  (ii) Mathematics  (iii) Computer Science | **CO2** | **L3** |
| 11 | Define a structure to store the name, an array marks[] which stores the marks of three different subjects, and a character grade. Write a program to display the details of the student whose name is entered by the user. Use the structure definition of the above question to make an array of students. Display the name of the students who have secured less than 40% of the aggregate. | **CO2** | **L3** |
| 12 | Write a program to find smallest of three numbers using structures. | **CO2** | **L3** |