Branch/Semester	B.Tech CSE (AI, ML & DS) / Semester I
Subject Name:	Computer Programming
Subject Code:	01CE2101
Assignment:	Practice Questions (Pointers and Dynamic Memory Allocation)
Date:	8th October 2025
Faculty Name:	Prof. Abhishek Chauhan

Sr.	Question	CO	BL
1	Write a simple C program to declare a pointer variable, initialize it, and display its address and value.	CO4	BL3
2	Write a C program to demonstrate pointer arithmetic (increment and decrement operations on pointers).	CO4	BL3
3	Write a C program to use a pointer to access and modify the value of a variable.	CO4	BL3
4	Write a program to input and print elements of an array using pointers instead of array indexing.	CO4	BL3
5	Write a C program to find the sum of all elements of an array using pointers.	CO4	BL3
6	Write a C program to demonstrate the concept of a pointer to a pointer (chain of pointers).	CO4	BL3
7	Write a C program to swap two numbers using call by reference (using pointers).	CO4	BL3
8	Write a C program that uses malloc() to allocate memory dynamically for an integer array and input elements.	CO4	BL3
9	Write a C program that uses calloc() to allocate memory for an array of n integers, take input, and display the array elements.	CO4	BL3
10	Write a C program to dynamically allocate memory using malloc(), then resize it using realloc().	CO4	BL3
11	Write a C program to demonstrate the use of free() to release allocated memory.	CO4	BL3

12	Write a program to compare the behavior of malloc() and calloc() by initializing and printing array values.	CO4	BL4
13	Write a program to allocate memory for a string using malloc() and then print the entered string.	CO4	BL3
14	Write a program to find the largest number in a dynamically allocated array using pointers.	CO4	BL3
15	Write a C program to demonstrate dynamic memory allocation for a 2D matrix using pointers and malloc().	CO4	BL4