ASSIGNMENT

COM-101

Introduction to C Programming

 $\mathbf{B}\mathbf{y}$

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Model Institute of Engineering & Technology (Autonomous)

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1.Write a C program to find the sum of elements in an array.

Ans) Code

```
#include <stdio.h>
int main() {
    int n, sum = 0;
    printf("Enter the number of elements in the array: ");
    scanf("%d", &n);

int arr[n];
    printf("Enter %d elements:\n", n);
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    for (int i = 0; i < n; i++) {
        sum += arr[i];
    }

    printf("Sum of elements: %d\n", sum);
    return 0;
}</pre>
```

Output

```
Enter the number of elements in the array: 5
Enter 5 elements:
3
2
1
4
5
Sum of elements: 15
```

Q2) Write the program for calculator using elseif and do while.

Code

```
Sol) #include <stdio.h>
int main() {
   char operator;
    double num1, num2, result;
    do {
        printf("Enter an operator (+, -, *, /) or 'q' to quit: ");
        scanf(" %c", &operator);
        if (operator == 'q') {
            break;
        printf("Enter two numbers: ");
        scanf("%lf %lf", &num1, &num2);
        if (operator == '+') {
            result = num1 + num2;
        } else if (operator == '-') {
            result = num1 - num2;
        } else if (operator == '*') {
            result = num1 * num2;
        } else if (operator == '/') {
            if (num2 != 0) {
                result = num1 / num2;
            } else {
                printf("Error: Division by zero\n");
                continue;
        } else {
            printf("Invalid operator\n");
            continue;
         printf("Result: %.21f\n", result);
     } while (1);
     printf("Calculator closed.\n");
    return 0;
```

Output

```
Enter an operator (+, -, *, /) or 'q' to quit: +
Enter two numbers: 3
4
Result: 7.00
```