Question: 1:-

```
#include<iostream>
using namespace std;
const int rows=4, col=5;

void arr_pass(int arr[rows][col]);
int main() {

    int mat[rows][col];

    cout << "Enter the values in array: " << endl;
    int i = 0;
    while (i < rows) {

        int j = 0;
        while (j < col) {

            cin >> mat[i][j];
            j++;
        }
        i++;
    }
    arr_pass(mat);

    return 0;
}

void arr_pass(int arr[rows][col]) {
    cout << endl;
    cout<<"The sorted table is: "<<endl;



    int row1[5];
    int j = 0;

    // Copy and sort row1
    while (j < col) {
```

```
        row1[j] = arr[0][j];
        j++;
    }
    int i = 0;
    while (i < 4) {
        j = 0;
        while (j < col - i - 1) {
            if (row1[j] > row1[j + 1]) {
                int temp = row1[j];
                row1[j] = row1[j + 1];
                row1[j + 1] = temp;
            }
            j++;
        }
        i++;
    }
    i = 0;
    while (i < 5) {
        cout << row1[i] << " ";
        i++;
    }
    cout << endl;

    // Copy and sort row2 in descending order
    int row2[5];
    j = 0;
    while (j < col) {
        row2[j] = arr[1][j];
        j++;
    }
    i = 0;
    while (i < 4) {
        j = 0;
        while (j < col - i - 1) {
            if (row2[j] < row2[j + 1]) {
                int temp = row2[j];
                row2[j] = row2[j + 1];
                row2[j + 1] = temp;
            }
```

```
            j++;
        }
        i++;
    }
    i = 0;
    while (i < 5) {
        cout << row2[i] << " ";
        i++;
    }
    cout << endl;

    // Copy and sort row3
    int row3[5];
    j = 0;
    while (j < col) {
        row3[j] = arr[2][j];
        j++;
    }
    i = 0;
    while (i < 4) {
        j = 0;
        while (j < col - i - 1) {
            if (row3[j] > row3[j + 1]) {
                int temp = row3[j];
                row3[j] = row3[j + 1];
                row3[j + 1] = temp;
            }
            j++;
        }
        i++;
    }
    i = 0;
    while (i < 5) {
        cout << row3[i] << " ";
        i++;
    }
    cout << endl;

    // Copy and sort row4 in descending order
```

```
    int row4[5];
    j = 0;
    while (j < col) {
        row4[j] = arr[3][j];
        j++;
    }
    i = 0;
    while (i < 4) {
        j = 0;
        while (j < col - i - 1) {
            if (row4[j] < row4[j + 1]) {
                int temp = row4[j];
                row4[j] = row4[j + 1];
                row4[j + 1] = temp;
            }
            j++;
        }
        i++;
    }
    i = 0;
    while (i < 5) {
        cout << row4[i] << " ";
        i++;
    }
    cout << endl;
}
```

Screenshot: Question:-1

```
Enter the values in array:
21 12 9 1 7
5 67 87 3 28
15 81 9 23 6
71 11 4 2 11

The sorted table is:
1 7 9 12 21
87 67 28 5 3
6 9 15 23 81
71 11 11 4 2
```

Question: 2:-

```cpp
#include<iostream>
using namespace std;

int sumcolumn(int arr[3][4]);
int main()
{
    int arr[3][4];
    cout<<"Enter The 2D array: "<<endl;
    for(int i=0;i<3;i++)
    {
        for(int j=0;j<4;j++)
        {
            cin>>arr[i][j];
        }
    }
    sumcolumn(arr);

    return 0;
}

int sumcolumn(int arr[3][4])
{

    for(int j=0;j<4;j++)//j is coloumn
    {
        int sum=0;

            for( int i = 0 ; i<3 ; i++ )//i is rows
            {
                sum = sum + arr[i][j];
            }
            cout<<"The sum of "<<j<<" column is: "<<sum<<endl;

    }
}
```

Screenshot: Question 02:-

```
Enter The 2D array:
2 3 4 5
2 3 4 5
2 3 4 5
The sum of 0 column is: 6
The sum of 1 column is: 9
The sum of 2 column is: 12
The sum of 3 column is: 15
```

Question: 03:-

```
#include<iostream>
using namespace std;

int Addmatrices(int a[3][3],int b[3][3]);//a and b are matrices. Corresponds to A
& B.

int main()
{
    int A[3][3];
    cout<<"Enter the 1st Matrix: "<<endl;
    for(int i=0;i<3;i++)
    {
        for(int j=0;j<3;j++)
        {
            cin>>A[i][j];

        }

    }

    int B[3][3];
    cout<<"Enter the 2nd Matrix: "<<endl;
    for(int i=0;i<3;i++)       //Loop to take input for Matrix B.
    {
        for(int j=0;j<3;j++)
        {
            cin>>B[i][j];

        }


    }
```

```
    Addmatrices(A,B);//Calling Function to add our matrices.

    return 0;
}

int Addmatrices(int a[3][3],int b[3][3])
{
    cout<<endl<<endl;
    cout<<"A+B is: "<<endl;
    for(int i=0;i<3;i++)   //Loop for finding and printing the sum of Matrices.
    {
        int sum=0;
        for(int j=0;j<3;j++)
        {
            sum = a[i][j] + b[i][j];
            cout<<sum<<" ";
        }
        cout<<endl;

    }

}
```

Screenshot: Question: 03:-

```
Enter the 1st Matrix:
1 1 1
1 1 1
1 1 1
Enter the 2nd Matrix:
2 2 2
2 2 2
2 2 2


A+B is:
3 3 3
3 3 3
3 3 3
```