



Course Code: CSC102 Course Title: Programming Fundamentals
Prerequisite: NA Instructor: Engr. Muhammad Waqas
Module: 2 Program: BEE Total Marks: 50 Time Allowed: 120 min

shehriyar khan

Note: Attempt all questions.

Q1.	(a)	Code a function that will return square of any integer number. <i>13738</i>	Marks 6 CLO 2
	(b)	Code a program where you input two 3x3 matrices from user and output the sum in matrix form.	Marks 6 CLO 1
Q2	(a)	Code a program to get the following series 65, 44, 27, 14, 5, 0, -1, 2, 9, 20. Hint: The series is created by the formula $2x^2 - 3x$ with $x=-5$ to 4.	Marks 8 CLO 1
	(b)	Code the following scenario, input 10 numbers from the user and take the sum of squares of each number stored in the array. Display the answer at end.	Marks 8 CLO 1
Q3	(a)	Code a function that reads a non-negative number (for example 8) and prints it in the following manner. 8 = 8, 7, 6, 5, 4, 3, 2, 1	Marks 10 CLO 2
Q4	(a)	Identify errors in the following codes if any <pre>#include <math.h> using namespace std Void main() { int n; while (n >= 0) { cout >> n * n >> "\n"; --n; } cout >> n >> "\n"; while (n < 4) cout >> n++ >> "\n" cout >> n >> "\n" while (n >= 0) cout >> (n) >> "\n";</pre>	Marks 6 CLO 2
	(b)	Determine the output of the following code? <pre>#include <iostream.h> using namespace std; int main(){ int n = 3; while (n >= 0){ cout << n * n << endl; n--; } cout << n << endl; while (n < 4) cout << n++ << endl; cout << n << endl; return 0; }}</pre>	Marks 6 CLO 2

Name Shehriyar Khan
ID 13738

Page# 01

Q No 1(a)

```
#include <iostream>
using namespace std;
void main()
{
    double a;
    cout << "enter an integer: ";
    cin >> a;
    cout << "\nsquare of integer is: " << a*a;
}
```



```
#include <stdio.h>

void main ()
{
    int i, j, rows, columns;

    printf ("Enter number of rows & column:");
    scanf ("%d%d", &rows, &columns);

    int a [rows] [columns], b [rows] [columns], c [rows] [columns];

    printf ("Enter first matrix: \n");
    for (i=0; i < rows; i++)
    {
        for (j=0; j < columns; j++)
        {
            scanf ("%d", &a [i] [j]);
        }
    }

    printf ("\n Enter second matrix: \n");
    for (i=0; i < rows; i++)
    {
        for (j=0; j < columns; j++)
        {
            scanf ("%d", &b [i] [j]);
        }
    }
}
```



```
{
    scanf ("%d", &b [i] [j]);
}
}

printf ("\n Enter third matrix: \n");
for (i=0; i < rows; i++)
{
    for (j=0; j < columns; j++)
    {
        scanf ("%d", &c [i] [j]);
    }
}

printf ("\n The sum of three matrices will be: \n");
for (i=0; i < rows; i++)
{
    printf ("%d", a [i] [j] + b [i] [j] + c [i] [j]);
}

printf ("\n");
}
}
```

Q No 2(a)

Ans :-

```
#include <iostream>
using namespace std;
int main ()
{
    for (int a = -5; a < 5; a++) {
        cout << 2 * a * a - 3 * a << " , ";
    }
}
```



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

void main()
{
    double a, b, c, d, = 0;

    for (int j=0; j<10; j++) {
        cout << "Enter 10 integers:";
        cin >> a;

        b = a*a;
    }

    for (int l=0; l<10; l++) {
        e = b+b;
    }

    for (int q=0; q<10; q++) {
        d = c;
    }

    cout << "The sum of all the squares of 10 integers is:" << d;
}
```

Q No(3)

Answer:-

```
#include <iostream>
using namespace std;
int main ()
{
    int a ;
    cout << "enter a positive integer : " ;
    cin >> a ;
    if (a >= 0) {
        cout << a << " = " ;
        for (int i = a ; i > 0 ; i -- ) {
            cout << i << " , " ;
        }
    }
    else {
        cout << "In The integer is not positive" ;
    }
}
```


Q No 4:- (a)

```
#include <iostream>
using namespace std;
void main()
{
    int n;
    while (n >= 0)
    {
        cout << n * n << "endl";
        -- n;
    }
    cout << n << "\n";
    while (n < 4) {
        cout << n++ << "\n";
        cout << n << "\n";
    }
    while (n > 0) {
        cout << n << "\n";
    }
}
```


Qno 4 (b)

(8)

page# 08

~~error in a program.~~

output :

9

4

1

0

-1

-1

0

1

2

3

4