

Department of Computer Science & Engineering

Problem Solving with C Laboratory-UE19CS152

Week-2

Objective:Students will learn Input, Output functions and its formatting, escape sequence, variable declaration & definition, different data types and different Errors in C program.

1) Write a program in 'C' to output as below:

```
Output:
```

```
#include <stdio.h>
int main()
{
     printf("Hello world\n");
     return 0;
}
```

2) Write a program to swap two variables using another variable.

Output:

For Example

Enter value of a and b

34

Before swapping: Value of a is 3 and b is 4 $\,$

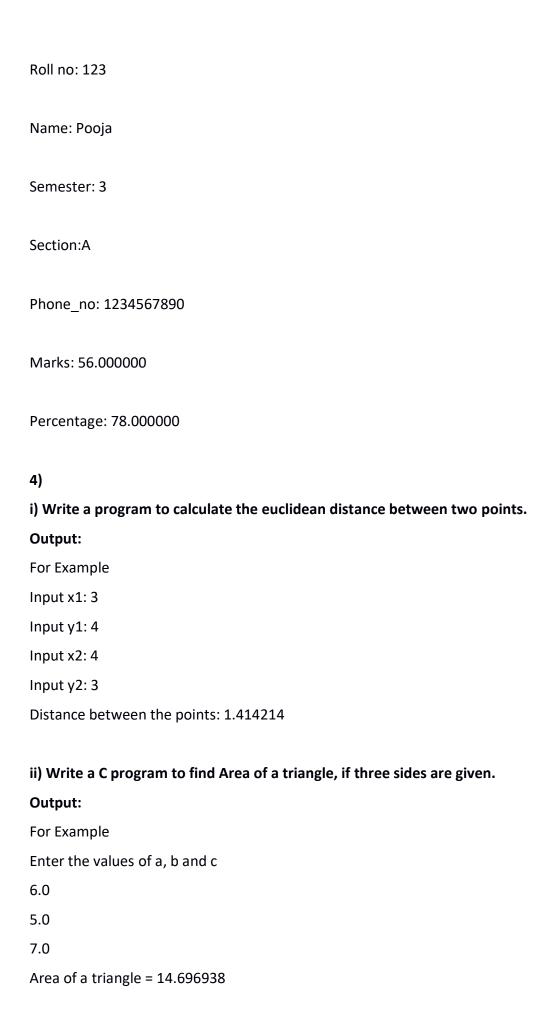
After swapping: Value of a is 4 and b is 3

3) a) Write a program to read the student information such as roll number,name,semester,section,phone number, marks,percentage from the user and display it in the same order.

Output:

For Example

The details of student:



```
Hint: use sqrt() and pow() functions, defined in #include<math.h>
```

Compilation: gcc filename -lm

Execution: ./a.out

5) Identify errors if any in the below codes, by executing different steps with gcc options : Hint-Compile time ,link time or runtime.

```
i) Example:1
#include <stdio.h>
int main(void)
{
       printf("Hello world\n")
       return 0;
}
ii) Example:2
#include <stdio.h>
int main(void)
{
       printf("Result =%d\n",25/0);
       return 0;
}
iii) Example:3
#include <stdio.h>
int main(void)
{
       int x;
       int y;
       float ratio;
       printf("Enter x and y value to find ratio\n");
```

scanf("%d %d",&x,&y);

```
ratio=(x+y)/(x-y);
       printf("Result of ratio=%f\n",ratio);
       return 0;
}
iv) Example:4
#include <stdio.h>
int main(void)
{
       int a;
       a=a+11;
       printf("a=%d\n",a);
       return 0;
}
v) Example: 5
#include <stdio.h>
int main(void)
{
       int a=10;int b;char c='A';
       b=a*c;
       printf("b=%d\n",b);
       return 0;
}
vi) Example:6
#include <stdio.h>
int main(void)
{
       Printf("Hello World\n");
       return 0;
}
```

vii) Example:7

```
#include <stdio.h>
int main(void)
{
    printf("%s %s","apple","kiwi\n","orange\n");
    printf("%s %s %s %s\n","apple","kiwi","orange\n");
    return 0;
}
```