Lab Submission # 3:

Question # 1:

```c
#include<stdio.h>
int main(){
   int testInteger=30000000000;
   printf("Number is:%d",testInteger);

//   Reason: value is exceeding int limit
//  you can use float to displat it.

   float value=3000000000;
   printf("\nNumber is:%f",value);

//   but remember float can also be exceede at 11-places
}
```

```
C:\Users\k243014\Desktop\Lab Task\main\lab task 1.exe
Number is:-64771072
Number is:3000000000.000000
--------------------------------
Process exited after 0.07073 seconds with return value 0
Press any key to continue . . .
```

Question # 2:

```c
#include<stdio.h>
int main(){
   int a,b,c;

   printf("Enter value a:");
   scanf("%d", &a);

   printf("Enter value b:");
   scanf("%d", &b);

   printf("Enter value c:");
   scanf("%d", &c);

   int newb = a;
   int newc = b;
   int newa = c;

   printf("values after rotation \na: %d\n",newa);
   printf("c: %d\n",newc);
}
```

```
C:\Users\k243014\Desktop\Lab Task\main\lab task2.exe
Enter value a:5
Enter value b:7
Enter value c:6
values after rotation
a: 6
b: 5
c: 7

--------------------------------
Process exited after 3.586 seconds with return value 0
Press any key to continue . . .
```

Question # 3

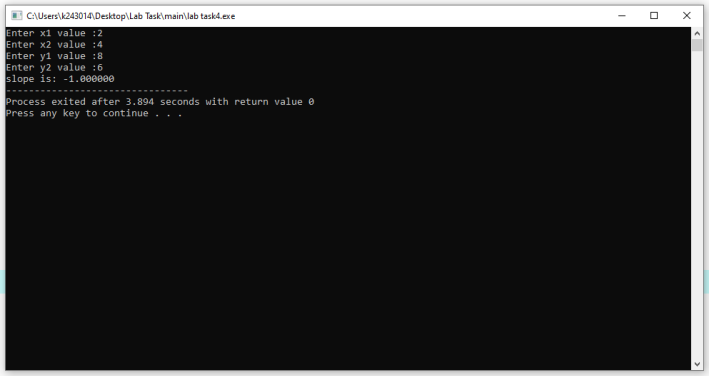
```c
#include<stdio.h>

main(){
    int fuel_effi;

    printf("Enter the Car Fuel Average per litre : ");
    scanf("%d", &fuel_effi);
    int distanceA = 850;
    int distanceB = 420;
    int priceA = 115;
    int priceB = 120;

    float tripX_price = (distanceA * priceA)/fuel_effi;
    float tripY_price = (distanceB * priceB)/fuel_effi;

    float totalCost = tripX_price + tripY_price;

    printf("The total cost of fuel of starting point\nto city-X 850KM and city-X to city-Y 420KM is :%f",totalCost);
    return 0;
}
```

```
C:\Users\Mahad\Documents\labtask3.exe
Enter the Car Fuel Average per litre : 20
The total cost of fuel of starting point
 to city-X 850KM and city-X to city-Y 420KM is :7407.000000
--------------------------------
Process exited after 3.289 seconds with return value 0
Press any key to continue . . .
```

Question # 4:

lab task 1.c | lab task2.c | lab task4.c

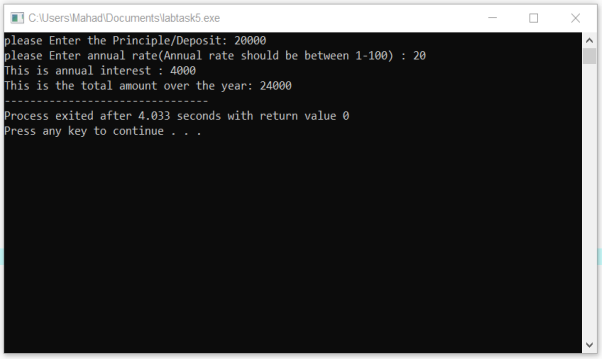
```c
#include<stdio.h>

int main(){
    int xa,xb,ya,yb,chngey,chngex;
    float slope;
    printf("Enter x1 value :");
    scanf("%d",&xa);
    printf("Enter x2 value :");
    scanf("%d",&xb);
    printf("Enter y1 value :");
    scanf("%d",&ya);
    printf("Enter y2 value :");
    scanf("%d",&yb);

    chngey = yb-ya;
    chngex = xb-xa;
    slope = chngey/chngex;
//  float slope = (()/(xb-xa));
    printf("slope is: %f",slope);
}
```



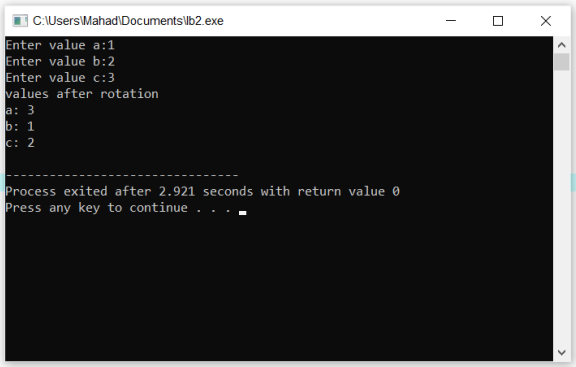
Question # 5:

[*] labtask3.c | labtask5.c

```c
#include<stdio.h>

main(){
    int principal;
    float rate;
    printf("please Enter the Principle/Deposit: ");
    scanf("%d", &principal);
    printf("please Enter annual rate(Annual rate should be between 1-100) : ");
    scanf("%f", &rate);

    rate = rate/100;
    int interest = principal*rate;
    printf("This is annual interest : %d", interest);

    int totalAmount = principal + interest;
    printf("\nThis is the total amount over the year: %d", totalAmount);

}
```



Alternate solution Q2:

[*] labtask3.c | labtask5.c | lb2.c

```c
#include<stdio.h>
int main(){
    int a,b,c;

    printf("Enter value a:");
    scanf("%d", &a);

    printf("Enter value b:");
    scanf("%d", &b);

    printf("Enter value c:");
    scanf("%d", &c);

    int z = c;
    c=b;
    b=a;
    a=z;


    printf("values after rotation \na: %d\n",a);
    printf("b: %d\n",b);
    printf("c: %d\n",c);
}
```