PF Lab Task #03:

Question 01:

ANSWER:

In the program the value of test Integer is greater than the value that can be stored in the int data type therefore the value that is being displayed on the screen is not the value that is initialized to the test Integer. Basically, the int data type can only store numbers from -32768 to 32767.

Question 02:

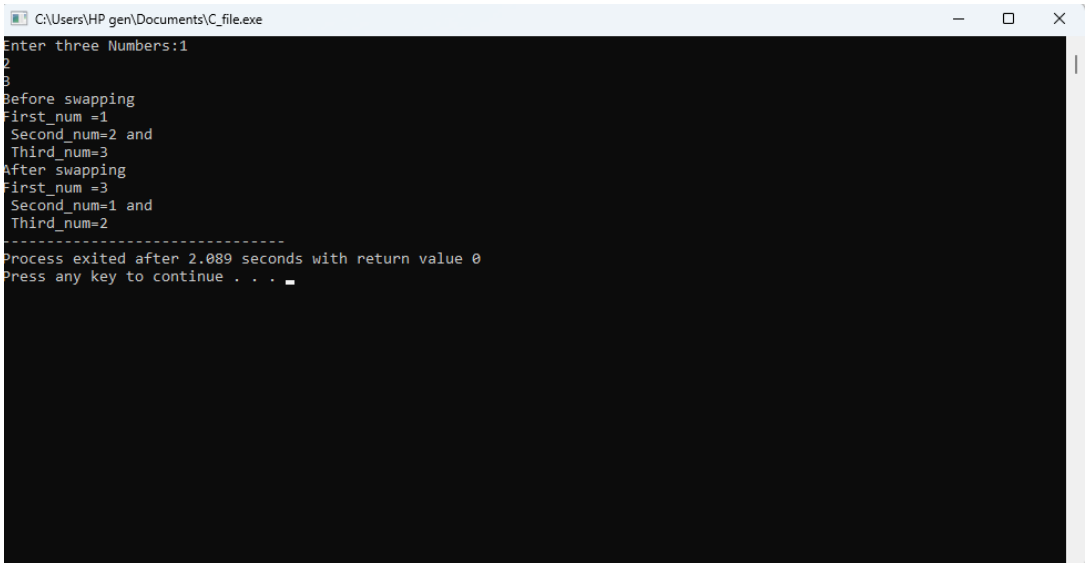
ANSWER:

Code:

C_file.cpp

```
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("Enter three Numbers:");
    scanf("%d %d %d",&a,&b,&c);
    printf("Before swapping \nFirst_num =%d \n Second_num=%d and \n Third_num=%d",a,b,c);
    a=a+b+c;
    b=a-(b+c);
    c=a-(b+c);
    a=a-(b+c);
    printf("\nAfter swapping \nFirst_num =%d \n Second_num=%d and \n Third_num=%d",a,b,c);
    return 0;
}
```

Output:



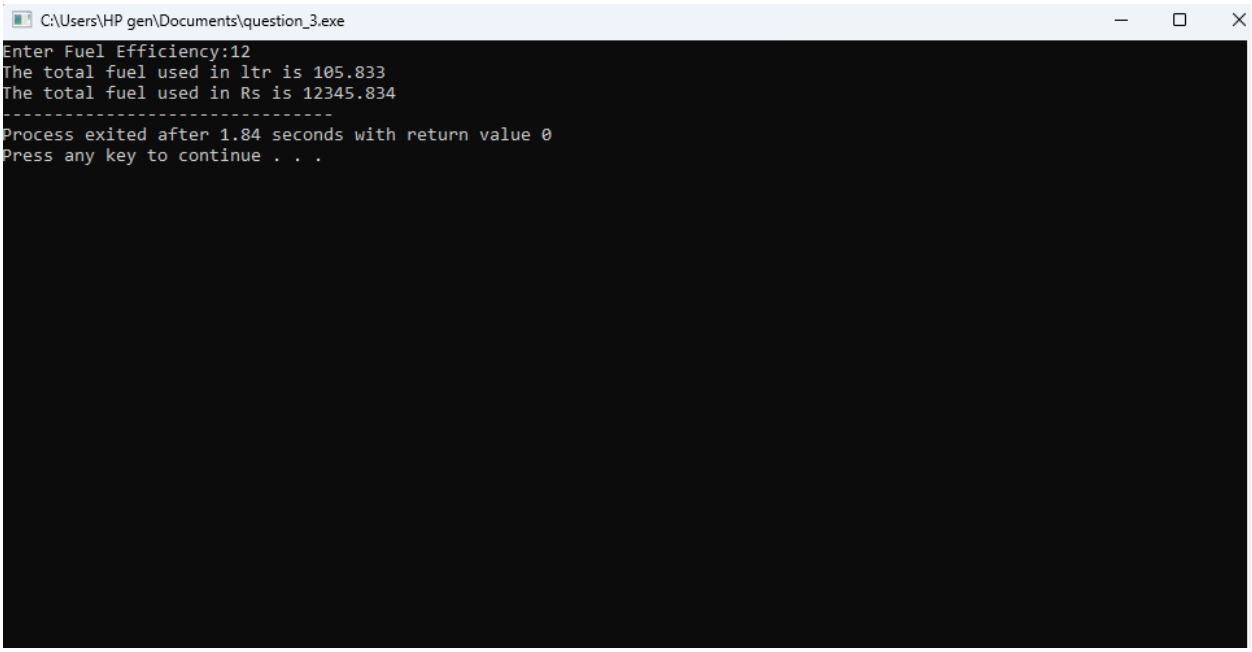
Question 03:

ANSWER:

Code:

```c
#include<stdio.h>
int main()
{
    int journey_1=850,journey_2=420,price_1=115,price_2=120;
    float fe;
    printf("Enter Fuel Efficiency:");
    scanf("%f",&fe);
    float fuel_1,fuel_2,total_fuel,total_cost;
    fuel_1=journey_1/fe;
    fuel_2=journey_2/fe;
    total_fuel=fuel_1+fuel_2;
    total_cost=(fuel_1*price_1)+(fuel_2*price_2);
    printf("The total fuel used in ltr is %.3f",total_fuel);
    printf("\nThe total fuel used in Rs is %.3f",total_cost);
    return 0;
}
```

Output:



Question 04:

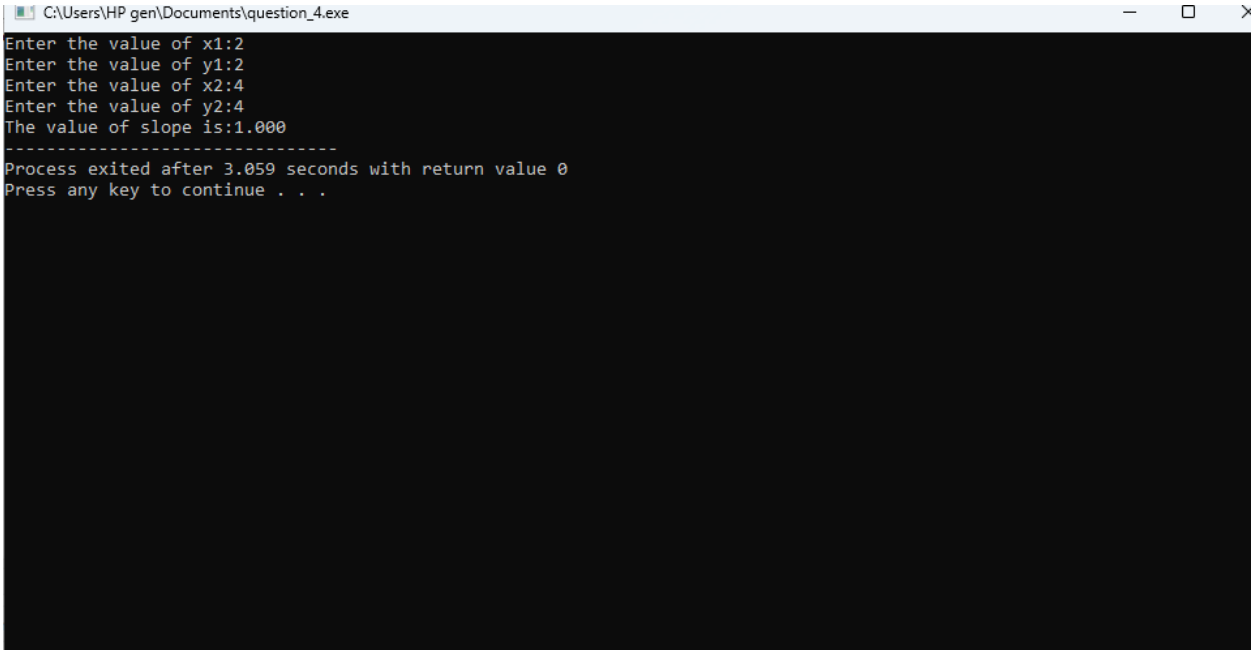
ANSWER:

Code:

```c
#include<stdio.h>
int main()
{
    float x1,y1,x2,y2;
    printf("Enter the value of x1:");
    scanf("%f",&x1);
    printf("Enter the value of y1:");
    scanf("%f",&y1);
    printf("Enter the value of x2:");
    scanf("%f",&x2);
    printf("Enter the value of y2:");
    scanf("%f",&y2);
    float slope=((y2-y1)/(x2-x1));
    printf("The value of slope is:%.3f",slope);
    return 0;

}
```

Output:



Question 05:

ANSWER:

Code:

```c
#include<stdio.h>
int main()
{
    float principal,interest_rate,interest,total_amount;
    printf("Enter the Principal:");
    scanf("%f",&principal);
    printf("Enter the interest Rate per year:");
    scanf("%f",&interest_rate);
    interest=principal*(interest_rate/100);
    total_amount=interest+principal;
    printf("The Total amount that should be paid after a year is %.3f",total_amount);
    return 0;
}
```

Output: