

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.

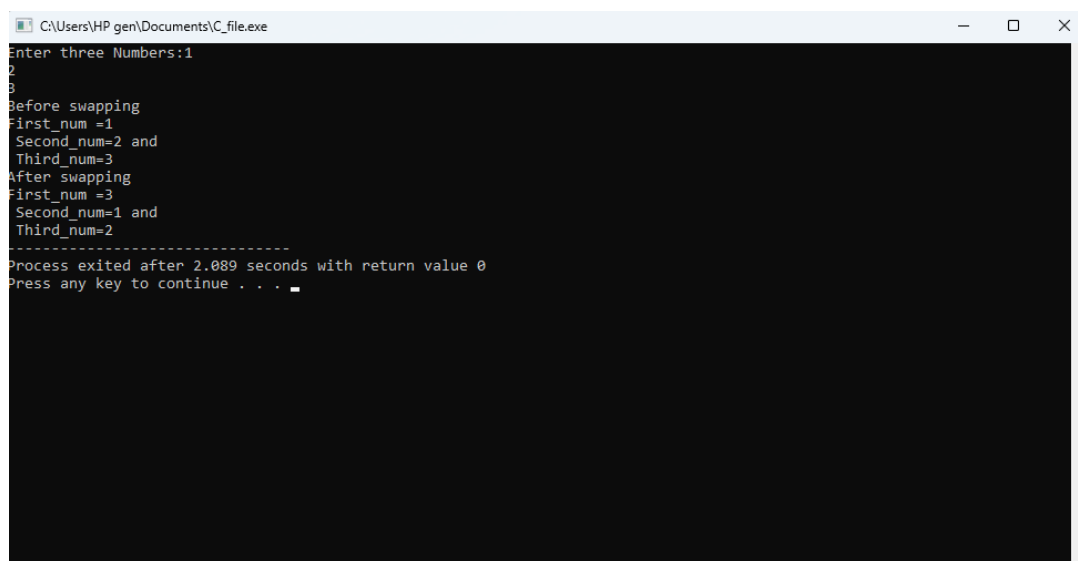
Question 02:

ANSWER:

Code:

```
C_file.cpp
1  #include<stdio.h>
2  int main()
3  {
4      int a,b,c;
5      printf("Enter three Numbers:");
6      scanf("%d %d %d",&a,&b,&c);
7      printf("Before swapping \nFirst_num =%d \n Second_num=%d and \n Third_num=%d",a,b,c);
8      a=a+b+c;
9      b=a-(b+c);
10     c=a-(b+c);
11     a=a-(b+c);
12     printf("\nAfter swapping \nFirst_num =%d \n Second_num=%d and \n Third_num=%d",a,b,c);
13     return 0;
14 }
```

Output:



```
C:\Users\HP gen\Documents\C_file.exe
Enter three Numbers:1
2
3
Before swapping
First_num =1
Second_num=2 and
Third_num=3
After swapping
First_num =3
Second_num=1 and
Third_num=2
-----
Process exited after 2.089 seconds with return value 0
Press any key to continue . . .
```

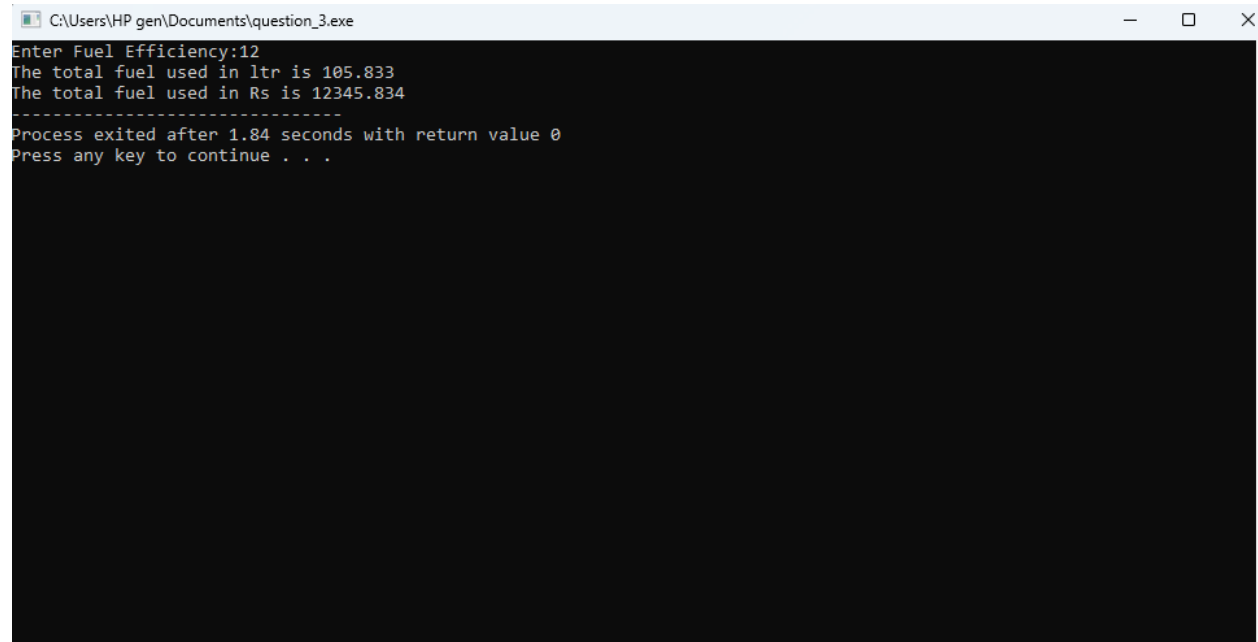
Question 03:

ANSWER:

Code:

```
1  #include<stdio.h>
2  int main()
3  {
4      int journey_1=850,journey_2=420,price_1=115,price_2=120;
5      float fe;
6      printf("Enter Fuel Efficiency:");
7      scanf("%f",&fe);
8      float fuel_1,fuel_2,total_fuel,total_cost;
9      fuel_1=journey_1/fe;
10     fuel_2=journey_2/fe;
11     total_fuel=fuel_1+fuel_2;
12     total_cost=(fuel_1*price_1)+(fuel_2*price_2);
13     printf("The total fuel used in ltr is %.3f",total_fuel);
14     printf("\nThe total fuel used in Rs is %.3f",total_cost);
15     return 0;
16 }
```

Output:



```
C:\Users\HP gen\Documents\question_3.exe
Enter Fuel Efficiency:12
The total fuel used in ltr is 105.833
The total fuel used in Rs is 12345.834
-----
Process exited after 1.84 seconds with return value 0
Press any key to continue . . .
```

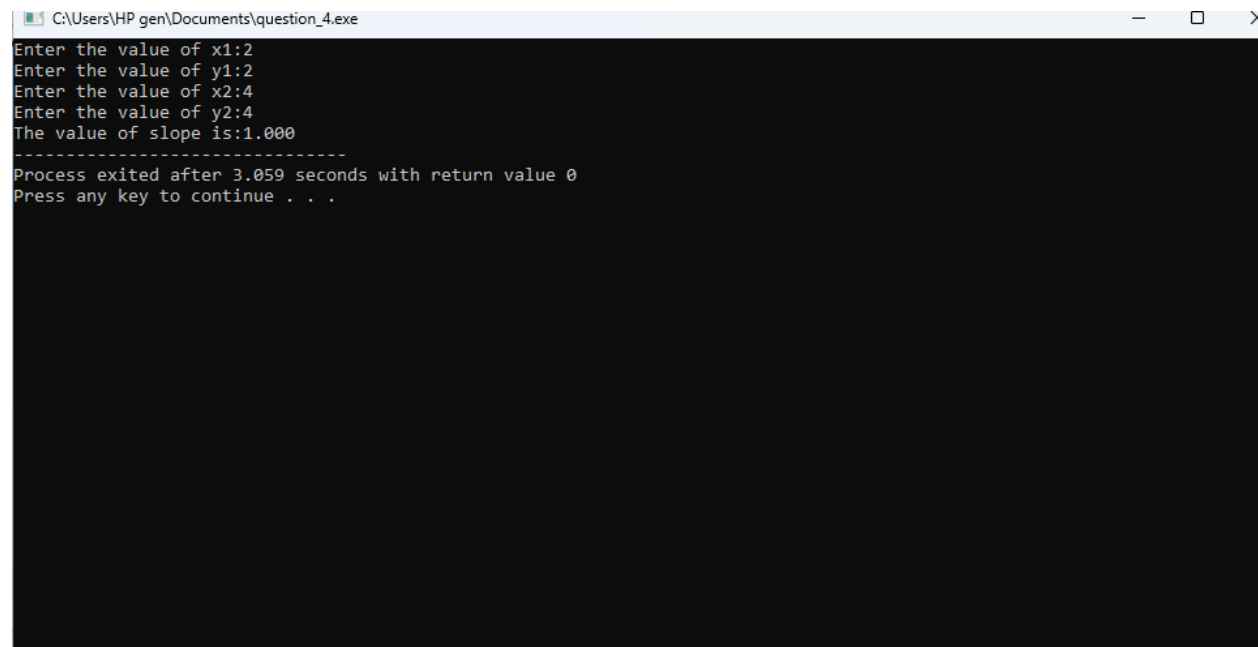
Question 04:

ANSWER:

Code:

```
1  #include<stdio.h>
2  int main()
3  {
4      float x1,y1,x2,y2;
5      printf("Enter the value of x1:");
6      scanf("%f",&x1);
7      printf("Enter the value of y1:");
8      scanf("%f",&y1);
9      printf("Enter the value of x2:");
10     scanf("%f",&x2);
11     printf("Enter the value of y2:");
12     scanf("%f",&y2);
13     float slope=((y2-y1)/(x2-x1));
14     printf("The value of slope is:%.3f",slope);
15     return 0;
16
17 }
```

Output:



```
C:\Users\HP gen\Documents\question_4.exe
Enter the value of x1:2
Enter the value of y1:2
Enter the value of x2:4
Enter the value of y2:4
The value of slope is:1.000
-----
Process exited after 3.059 seconds with return value 0
Press any key to continue . . .
```

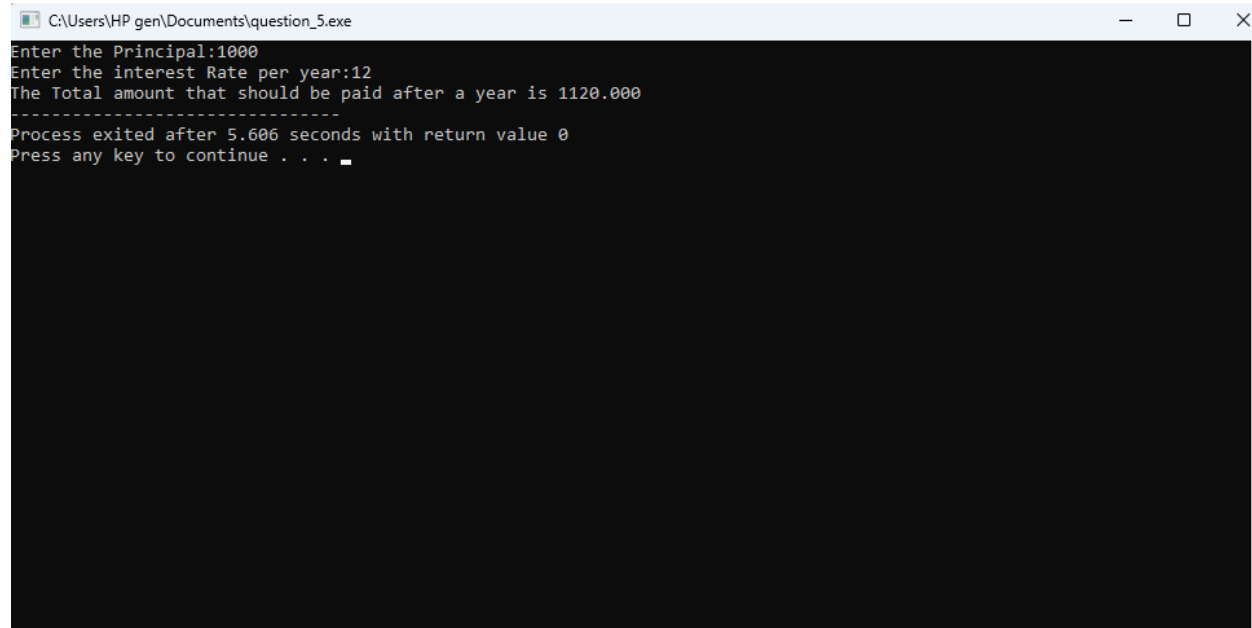
Question 05:

ANSWER:

Code:

```
1  #include<stdio.h>
2  int main()
3  {
4      float principal,interest_rate,interest,total_amount;
5      printf("Enter the Principal:");
6      scanf("%f",&principal);
7      printf("Enter the interest Rate per year:");
8      scanf("%f",&interest_rate);
9      interest=principal*(interest_rate/100);
10     total_amount=interest+principal;
11     printf("The Total amount that should be paid after a year is %.3f",total_amount);
12     return 0;
13 }
14 |
```

Output:



```
C:\Users\HP gen\Documents\question_5.exe
Enter the Principal:1000
Enter the interest Rate per year:12
The Total amount that should be paid after a year is 1120.000
-----
Process exited after 5.606 seconds with return value 0
Press any key to continue . . .
```