```
>>> #1
>>>
>>> string="Python is a case sensitive language"
>>>
>>> #a
>>>
>>> length=len(string)
>>> print("The length of the input string is", len(string))
The length of the input string is 35
>>>
>>> #b
>>>
>>> reverse=string[length::-1]
>>> print(reverse)
egaugnal evitisnes esac a si nohtyP
>>>
>>> #c
>>>
>>> find=string.find("a")
>>> print(find)
10
>>> print(string.find("language"))
27
>>> new_string=string[10:27]
>>> print(new_string)
a case sensitive
>>>
>>> #d
>>>
>>> new_string_2=string.replace('a case sensitive','object oriented')
>>> print(new_string_2)
Python is object oriented language
>>>
>>> #e
>>>
>>> index=string.find("a")
>>> print(index)
10
>>>
>>> #f
>>>
>>> print(string.replace(" ",''))
Pythonisacasesensitivelanguage
```

```
>>> #2
>>>
>>> print("Hey, {ABC} Here! \nMy SID is {SID}. \nI am from {XYZ} Department and my CGPA is {CGPA}.".format(ABC="Vaibhav", SID="21107033", XYZ="Mechanical", CGPA=9.9))
Hey, Vaibhav Here!
My SID is 21107033.
I am from Mechanical Department and my CGPA is 9.9.
>>>
```

```
>>> #3
>>>
>>> a=56
>>> b=10
>>>
>>> #a
>>>
>>> a&b
8
>>>
>>> #b
>>>
>>> a|b
58
>>>
>>> #c
>>>
>>> a^b
50
>>>
>>> #d
>>>
>>> a<<2
224
>>> b<<2
40
>>>
>>> #e
>>>
>>> a>>2
14
>>> b>>4
0
>>>
```

```
>>> #4
>>>
>>> string=input("Enter your input here : ")
Enter your input here : My name is Vaibhav.
>>> if string.find("name"):
...  print("Yes")
... else:
...  print("No")
...
Yes
>>>
```

```
>>> #5
>>>
>>> a=int(input("Enter side a of triangle : "))
Enter side a of triangle : 4
>>> b=int(input("Enter side b of triangle : "))
Enter side b of triangle : 3
>>> c=int(input("Enter side c of triangle : "))
Enter side c of triangle : 8
>>> while (a<=b+c and (b<=a+c) and c<=a+b):
...  print('yes')
...  break
... else:
...  print('no')
...
no
>>>
```

```
>>> #6
>>>
>>> a,b=map(int,input("Enter the values of A and B : ").split())
Enter the values of A and B : 999 333
>>> num=a^b
>>> count_flipped_bit=0
>>> while(num!=0):
...  num=num&(num-1)
...  count_flipped_bit+=1
...
>>> print("Number of bits needed to be flipped to convert a to b is : ",count_flipped_bit)
Number of bits needed to be flipped to convert a to b is :  5
>>>
```