# Practical

## a)Write a python script to demonstrate Set.

IDLE Shell 3.10.5

File Edit Shell Debug Options Window Help

```
Type "help", "copyright", "credits" or "license()" for more information.
>>> sampleset={1,2,3,4,5,5,2}
>>> print(sampleset) #duplicat elements are removed
{1, 2, 3, 4, 5}
>>> print(5 in sampleset)
True
>>> #checks whether element is in set or not
>>> sampleset.add(6)
>>> print(sampleset)
{1, 2, 3, 4, 5, 6}
>>> samplesetl={1,2,3}
>>> sampleset2={4,5,6}
>>> samplesetl.update(sampleset2)
>>> print("now set be:", samplesetl)
now set be: {1, 2, 3, 4, 5, 6}
>>> sampleset.remove(7)
Traceback (most recent call last):
  File "<pyshell#10>", line 1, in <module>
    sampleset.remove(7)
KeyError: 7
>>> sampleset.discard(7)
>>> sampleset.clear()
>>> print(sampleset)
set()
>>> del sampleset
>>> print(sampleset)
Traceback (most recent call last):
  File "<pyshell#15>", line 1, in <module>
    print(sampleset)
NameError: name 'sampleset' is not defined. Did you mean: 'samplesetl'?
>>> print(samplesetl.union(sampleset2))
{1, 2, 3, 4, 5, 6}
>>> print(samplesetl.difference(sampleset2)
...       )
{1, 2, 3}
>>> print(sampleset.intersection(sampleset2))
Traceback (most recent call last):
  File "<pyshell#19>", line 1, in <module>
    print(sampleset.intersection(sampleset2))
NameError: name 'sampleset' is not defined. Did you mean: 'samplesetl'?
>>> print(samplesetl.intersection(sampleset2))
{4, 5, 6}
```

# (b)Write a python script to demonstrate String.

```
>>> samplestring="hello"
>>> print(samplestring)
hello
>>> samplestring="""without engineers in our lives,"""
>>> samplestring="""without engineers in our lives,
... it would have been a completly differnet world to live in ..!"""
>>> print(samplestring)
without engineers in our lives,
it would have been a completly differnet world to live in ..!
>>> samplestring="hello future computer engineers"
>>> print(samplestring[6])
f
>>> print(samplestring[-1])
s
>>> print(samplestring[6:12])
future
>>> print(samplestring[:12])
hello future
>>> print(samplestring[6:])
future computer engineers
>>> print(samplestring[-12:])
er engineers
>>> samplestring1="hello"
>>> samplestring2="world"
>>> samplemerge=samplestring1+samplestring2
>>> print(samplemerge)]
SyntaxError: unmatched ']'
>>> print(samplemerge)
helloworld
>>> age=25
>>> message="i am" +age+ "years old"
Traceback (most recent call last):
  File "<pyshell#19>", line 1, in <module>
    message="i am" +age+ "years old"
TypeError: can only concatenate str (not "int") to str
>>> message="i am () years old"
>>> print (message.format(age))
i am () years old
>>> message="i am {} years old"
>>> print (message.format(age))
i am 25 years old
>>> saying="hello \n 25"
>>> print(saying)
hello
 25
```

```
>>> samplee="hellllloooo"
>>> samplee.capitalize()
'Hellllloooo'
>>> sampleeupper()
Traceback (most recent call last):
  File "<pyshell#29>", line 1, in <module>
    sampleeupper()
NameError: name 'sampleeupper' is not defined
>>> samplee.upper()
'HELLLLLOOOO'
>>> sample.lower()
Traceback (most recent call last):
  File "<pyshell#31>", line 1, in <module>
    sample.lower()
NameError: name 'sample' is not defined. Did you mean: 'samplee'?
>>> samplee.lower()
'hellllloooo'
>>> samplee.count("h")
1
>>> samplee.find("hel")
0
>>> samplee.find("heee")
-1
>>> number="123"
>>> number.isdigit()
True
>>> lab="afs-112"
>>> lab.isalnum()
False
>>> a="cse2"
>>> a.isalnum()
True
>>> clas=xse"
SyntaxError: unterminated string literal (detected at line 1)
>>> clas="cse"
>>> clas.isalpha()
True
>>> saying="this is a"
>>> print(saying)
this is a
>>> saying.replace("a","b")
'this is b'
>>> uni="hello , world"
>>> uni.strip(" ,")
'hello , world'
>>> elements=saying.split()
>>> print(elements)
['this', 'is', 'a']
>>> type(elements)

>>> type(elements)
<class 'list'>
```