ASSIGNMENT : 30

write a program in python to ~~perform~~ create a set ~~functions~~

⇒
```
a = {'a', 'b', 'c', 'd', 'e'}
print (a)
a = {1, 2, 3, 4, 5}
print (a)
```

ASSIGNMENT : 31

write a program in python to perform set functions.

⇒
```
# add
a = {1, 2, 5, 4, 7, 8, 9}
a.add (10)
print ("added 10", a)

# remove
a = {1, 2, 5, 4, 7, 8, 9}
a.remove (2)
print ("removed 2", a)

# clear
a = {1, 2, 5, 4, 7, 8, 9}
a.clear ()
print ("cleared set", a)

# difference
a = {1, 21, 5, 4, 7, 8, 9}
```

Output 30:

{'a', 'f', 'c', 'b', 'd', 'e'}
{1, 2, 3, 6, 45}

Output 31:

added 10 {1, 2, 4, 5, 7, 8, 9, 10}
removed 2 {1, 4, 5, 7, 8, 9, 10}
cleared set set()
a difference b {1, 4, 8, 9, 21}
b difference a {80, 51, 3, 94}
symmetric difference {1, 3, 4, 8, 9, 80, 21, 94, 51}
intersected set {5, 7}
union set {1, 2, 3, 4, 5, 7, 8, 9, 80, 51, 94}
subset False
superset True

```
b = {7, 80, 3, 51, 5, 94}
print("a difference b", a.difference(b))
print("b difference a", b.difference(a))

# symmetric Difference
a = {1, 21, 5, 4, 7, 8, 9}
b = {7, 80, 3, 51, 5, 94}
print("symmetric_difference", a.symmetric_difference(b))

# intersection
a = {1, 2, 5, 4, 7, 8, 9}
b = {7, 80, 3, 51, 5, 94}
a = a.intersection(b)
print("intersected set", a)

# union
a = {1, 2, 5, 4, 7, 8, 9}
b = {7, 80, 3, 51, 5, 94}
a = a.union(b)
print("union set", a)

# subset
a = {1, 2, 5, 4, 7, 8, 9}
b = {7, 80, 3, 51, 5, 94}
a = a.issubset(b)
print("subset", a)
```

```
# superset
a = {1,2,5,4,7,8,9}
b = {1,2,5,4,7,8,9}
a = a.issuperset(b)
print("superset", a)
```

ASSIGNMENT : 32

Write a program in python to add two matrix

⇒
```
x = [[12,7,3],
     [4,5,6],
     [7,8,9]]
y = [[5,8,1],
     [6,7,3],
     [4,5,9]]
result = [[0,0,0],
          [0,0,0],
          [0,0,0]]
for i in range(len(x)):
    for j in range(len(y)):
        result[i][j] = x[i][j] + y[i][j]
for r in result:
    print(r)
```

Output 32 :

```
[2, 4, 6]
[8, 10, 12]
[6, 8, 10]
```

ASSIGNMENT : 33

Write a program in python to multiply two matrix.

⇒
```
x = [[1,2,3],
     [4,5,6],
     [3,4,5]]
y = [[1,2,3],
     [4,5,6],
     [3,4,5]]
result = [[0,0,0],
          [0,0,0],
          [0,0,0]]
for i in range (len(x)):
    for j in range ( len (y)):
        result [i][j] = x[i][j] * y[i][j]
for r in result :
    print (r)
```

ASSIGNMENT : 34

Write a program in python to print factorial

⇒
```
def fact (n):
    if n == 1
    return n
    Else:
        return n* fact (n-1)
x = fact (5)
print (x)
```

Output 33 :

```
[1, 4, 9]
[16, 25, 36]
[9 , 16, 25]
```

Output 34 :

class notes
DATE
PAGE

ASSIGNMENT : 35

Write a program in python to print multiple arguments with argument 'b' & return the result (lambda)

⇒
```
x = lambda a, b, c : a+b+c
    print (x( 5, 6, 2))
```

ASSIGNMENT : 36

Write a program in python to print multiple arguments with argument 'a' with argument 'b' and return result. (lambda multiply)

⇒
```
x = lambda a, b : a * b
    print (x(5, 6))
```

ASSIGNMENT : 37

Write a program to print regulare Expression.

⇒
```
import re
txt = " This rain in spain "
  x = re . findall (" is ", txt )
print (x)
```

```
import re
txt = " This rain in spain "
x = re . search (" is " , txt)
print (x)
```

```
import re
txt = " This rain in spain "
```

Output 35:

13

Output 36:

30

Output 37:

```
['is']
<re.Match object; span=(2, 4), match='is'>
thIS rain in spain
['th', 'rain in spain']
```

```
x = re.sub ("is", "IS", txt)
print (x)
```

```
import re
txt = "This rain in spain"
x = re.split ("is", txt)
print (x)
```

ASSIGNMENT : 38

write a program in python to print Exception Handling

⇒ (a)
```
try:
    print (x)
except:
    print ("an exception occured")
```

⇒ (b.)
```
try:
    print (x)
except NameError:
    print ("Variable x is not defined.")
except:
    print ("Something else went wrong")
```

11/6/22

⇒ (c)
```
try:
    print ("hello")
except:
    print ("Something went wrong")
else:
    print ("nothing went wrong")
```

Output 38:

=) (a.) an exception occured

(b.) Variable x is not defined

(c.) hello
nothing went wrong