1.

que="Hi there sam!"

ans=que.split()

print(ans)

output

[‘Hi', 'there', 'sam!']

2.

print('The diameter of the {} is {} kilometers'.format('Earth', '12742'))

output

The diameter of the Earth is 12742 kilometers

4.a.

import numpy as np

a=np.zeros(10)

print(a)

output

[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]

4.b.

import numpy as np

a=np.ones(10)\*5

print(a)

output [5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]

5.

import numpy as np

array=np.arange(20,31,2)

print("array of even integers from 20 to 30")

print(array)

output

array of even integers from 20 to 30

[20 22 24 26 28 30]

6.

import numpy as np

m=np.arange(0,9).reshape(3,3)

print(m)

output

[[0 1 2]

[3 4 5]

[6 7 8]]>

7.

import numpy as np

a=np.array([1,2,3])

b=np.array([4,5,6])

con=np.concatenate((a,b),axis= 0)

print(con)

output

[1 2 3 4 5 6]

8.

import pandas as pd  
lst=[[1,'aaa',22],[2,'bbb',25],[3,'ccc',24]]  
df=pd.DataFrame(lst,columns=['Sno','Alphabets','val'])  
print(df)

output

Sno Alphabets  val  
0    1       aaa   22  
1    2       bbb   25  
2    3       ccc   24

9.

import datetime

import pandas as pd

test\_date = datetime.datetime.strptime("01-01-2023", "%d-%m-%Y")

K = 10

date\_generated = pd.date\_range(test\_date, periods=K)

print(date\_generated.strftime("%d-%m-%Y"))

output

Index(['01-01-2023', '02-01-2023', '03-01-2023', '04-01-2023', '05-01-2023',

'06-01-2023', '07-01-2023', '08-01-2023', '09-01-2023', '10-01-2023'],

dtype='object')

10.

import pandas as pd

lst = [[1,'aaa', 22], [2,'bbb', 25],

[3,'ccc', 24]]

# creating df object with columns specified

df = pd.DataFrame(lst, columns =['sno','name', 'number'])

print(df )

output

sno name number

0 1 aaa 22

1 2 bbb 25

2 3 ccc 24