Basic Python

1.Split this string

s = “Greetings to everyone!”

X =s.split()

print(X)

[‘Greetings’, ‘to’, ‘everyone!’]

2.Use .format() to print the following string.

Output should be: The measurement of the rain level is 230 mm.

wheather = “Rain”

level = 230

print(“The measurement {} {} {} {} {} {} {} “.

format(“of”,”the”,”rain”, “level”,”is”,”230”,”mm”))

The measurement of the rain level is 230 mm

3.In this nest dictionary grab the word”hello”

d = {‘k1’:[1,2,3,{‘tricky’:[‘oh’,’man’,’inception’,{‘target’:

[1,2,3,’hello’]}]}]}

print(d[‘k1’][3][“tricky”][3][‘target’][3])

hello

Numpy

import numpy as np

4.1 Create an array of 10 zeros?

4.2 Create an array of 10 fives?

array=np.zeros(10)

print(“An array of 10 zeros:”)

print(array)

An array of 10 zeros:

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

5.Create an array of all the even integers from 10 to 25

import numpy as np

array=np.arrange(10,25,2)

print(“Array of all the even integers from 10 to 25”)

print(array)

Array of all the even integers from 10 to 25

[10 12 14 16 18 20 22 24]

6. Create a 3x3 matrix with values ranging from 0 to 8

import numpy as np

x=np.arrange(0,9).reshape(3,3)

print(x)

[[0 1 2]

[3 4 5]

[6 7 8]]

7. Concatenate a and b

a = np.array([3,4,5]), b = np.array([6,7,8])

a = np.array([3,4,5])

b = np.array([6,7,8])

c=np.concatenate((a,b))

print(c)

[3 4 5 6 7 8]

Pandas

8. Create a dataframe with 3 rows and 2 columns

import pandas as pd

data=[[‘Nivi’,21],[‘Jhon’,19],[‘Hems’,18]]

df=pd.DataFrame(data, columns=[‘Name’,’Age])

df

Name Age

0 Nivi 21

1 Jhon 19

2 Hems 18

9.Generate the series of datas from 12th Sep ,2023 to 18th Sep,2023

import datetime

import pandas as pd

test\_date = datetime.datetime.strptime(“12-09-2023”,”%d-%m-%y”)

K=7

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

print(date\_generated.strftime(“%d-%m-%y”))

Index([’12-09-2023’, ’13-09-2023’, ‘14-09-2023’, ‘15-09-2023’, ‘16-09-2023’, ‘17-09-2023’, ‘18-09-2023’],dtype=’object’)

10. Create 2D list to DataFrame

lists = [[1,’abc’,21],[2,’def’,22],[3,’ghi’,23]]

lists = [[1, ‘abc’, 21], [2, ’def’, 22], [3, ‘ghi’, 23]]

import pandas as pd

lists = [[1, ‘abc’, 21], [2, ’def’, 22], [3, ‘ghi’, 23]]

df = pd.DataFrame(lists)

df.columns = [‘col1’,’col2’,’col3’]

print(df, “\n”)

col1 col2 col3

0 1 abc 21

1 2 def 22

2 3 ghi 23