Q.1 savings=200
savings*=4
print(savings)

#o/p:800

Q.2 def more(x):
    if x>4:
        return more(x/2)
Ans: Recursive Function

Q.3 you want to open a txt file in python which mode you'll use
Ans: W , write mode

Q.4 Sort Values

Q.5 which command is used to print text at a specific location on the plot area plt.annotate

Q.6 Bitwise XOR Results bit 1,if any of the operand bit is 1 but not both, otherwise results bit 0.
X^Y
ex:
print(9^7)
#o/p:14
print(6^7)
#o/p:1

Q.7 You are doing exploratory data analysis of univariant features. Which plot/diagram will give you a clear idea if data has any outliers
Ans: BoxPlot

Q.8 data slicing is an important part of data mining.if you are given numerical data and asked to slice the data froma a specific index to a cetain point, which code snippet will be appropriate for this task ?

import numpy as numpy

data=[8,5,1,15,1,17,1,2,7,5]
#rearrange=yourcodefor{sliced_array}
rearrange=data[2:7]
print("Orignal Array:\n",data)
print("\n Rshaped Array:\n",rearrange)

#O/P REQ [1, 15, 1, 17, 1]

O/P : Orignal Array:
 [8, 5, 1, 15, 1, 17, 1, 2, 7, 5]

 Rshaped Array:
 [1, 15, 1, 17, 1]

Q.9 You are asked to sort empolyee database based on Salary in ascending order. Write code.
ans: data.sort_values(by='salary')

Q.10 Cal age of employee in 2019
ans: 2019-record['Year_born']

Q.11 What is the purpose of the following Function __doc_String___?
ans: It will display any comments inside "".

Q.12 What will abs(200-865) return?
ans: 665
The Python abs() function return the absolute value and remove the negative sign of a number in Python.

Q.13 You were asked to review the code written by your peer. What should be the oo/p of the code snippet given below?
calc=[num*2 for num in range(1,8)]
ans: [2,4,6,8,10,12,14]

Q.14 What will be type of var m?
m1=10
m2=15.3
m=m+m2
ans: float

Q.15 You have been asked to present a quick statistical summary of the given dataset. The summary should have the following information:
No of elements in dataset
Mean
Standard Deviation
Min
Max

```
import random as rd
import numpy as np
import statistics
population=pd.Series(rd.sample(1500,1600),k=10))
print(population)
YOUR CODE HERE
```

ans:
```
min=np.min(p)
max=np.max(p)
Std=np.std(p)
length=len(p)
mean=np.mean(population)
```

Q.16 What will be the o/p of 15==(20-5)
ans: True

Q.17 What do the following represent ?
Pandas,Numpy,sklearn,keras
ans: Python Libraries

Q.18 What will be the O/P of this code?
```
a="Data"
print(f'{a*10}')
```
ans:DataDataDataDataDataDataDataDataDataData

Q.19 How will you find the range (min & max value) of the complete Dataset ?
```
import random as rd
import numpy as np
p=rd.sample(range(20000,60000),k=20)
print(p)
xxx[your code here]
```

ans: np.min(p) and np.max(p)

Q.20 You are working for a dealership company and you've got 2 datasets.
Which merge statement wil give you the following output?
ans: pd.merge(cars_df.models_df,on="Name",how="inner")

Q.21 Data types are important and at times, we have to change the data type as per requirement. How will you create the array shown below keeping in mind the kind of data stored in it ?
array([0.+0.j,1.+0.j,2+0.j,3+0.j,4.+0.j])
ans:np.arange(5,dtype=float)

Q.22 You are doing data cleaning. How would you clean this string ?
string='David&Emerson' to 'David Emersion'
you are supposed to remove the symbol '&' and replace with ''.
Ans: string='David&Emerson'
string=string.replace('&',' ')
print(string)

Q.23 Create an array of size (3,2) with all zeroes.
ans: array_zeros = np.zeros((3, 2))

Q.24 You are given data of customer in two tables. One table has customers personal details and the second has their online buying data. You want to merge both tables to get the complete data from both tables. which join you use in pd.merge command?
ans: inner
Outer Join: Returns all the rows from both tables and fills the missing values with NaN (or a specified value) for non-matching rows.

Q.25 WHAT IS THE VALUE OF THE VARIABLE temp ?
```
for num in range(1,10):
  temp=temp+num
print(temp)
```

O/P: Name Error

Q.26 How will you convert a list into Pandas DataFrame ?
Ans:pd.DataFrame(list)

Q.27 A variable df contains the following Pandas DataFrame. what is the correct syntax for selecting part of the data for 2012 and 2016 year?
ans: df[df['year'] > 2009]
exp: creates a boolean mask that checks if each value in the 'year' column is greater than 2009. The mask is then used to select the rows in the DataFrame df that satisfy the condition, and the result is stored.

Q.28 temp["TEMPRATURE"].apply(lambda x:x-1)
Ans: It applies a lambda function to the "TEMPRATURE" column of a pandas DataFrame called temp and subtracts 1 from each value in that column.

Q.29 Which pandas method will convert a column type from object to float, even if there are invalid numbers in that column?
ans:pd.to_numeric(). The pandas method that can be used to convert a column type from object to float, even if there are invalid numbers in that column, is pd.to_numeric().

Q.30 What will be the o/p ?
```
al=5
def m(number):
   return number*al
def addition(number):
   al=2
   answer=number+al
   return multi(answer)
addition(5)
```

Ans: 35

Q.31 Initalize a class books for this code:

```
class books:
    def __init__(self,nb):
        self.num=nb
    def createbooks(self):
        books={}
        for n in range(self.num):
            books[n]=str(n)+'_090_'+'book'
        return books
```

ans: my_books = Books(nb=4)
You can then call the createbooks method on my_books to generate the dictionary of books.books_dict = my_books.createbooks()

Q.32 What function call will create scatter plot
Ans: scatter()

More Questions:

Q.33

```
for no in 10,15:
    for c in range(1,3):
        print(no*c,end=" ")

# 10 20 15 30
```

Q.34 #which can result in error

```
tuple1=(5,10,15,20,25)
print(len(tuple1))
tuple1[2]=100
print(tuple1[5])
tuple1=tuple1+(8,9,"h")


#tuple1[2]=100 and  print(tuple1[5]) will throw error
```

Q.35 #What will be the O/P of the code snippet

```
l=[0]*5
for i in range(1,5):
    l[i]=(i-1)*10
print(l)

#1 2 3 4
#0 10 20 30
#0 0 10 20 30 will be the o/p
```

Q.36 A developer wants to use a Python data type in which they can store the element value as well as it's index Which of the following data types can they use to do so?

Tuple

Q.37 #What will be the O/P of the code snippet

```
import re
m=re.search('a%^& b%','abcdefghijklmnopqrstuvwxyz')
m.group(0)
print(m)

#AttributeError: 'NoneType' object has no attribute 'group'
```

Q.38 #What will be the O/P of the code snippet : list comprehension

```
s=((1,'KKk',200),(307,'LLL',81),(56,'MMM',9))
res = [("key" + sub[0], 'value' + sub[1], "id" + sub[2]) for sub in s]
print(str(res))
```

#TypeError: can only concatenate str (not "int") to str
#correct: [('key1', 'valueKKk', 'id200'), ('key307', 'valueLLL', 'id81'), ('key56', 'valueMMM', 'id9')]

Q.39 a={1,"hello",2,"World",3,True}

```
for i in range(4):
    a.add(i)
print(a)
```

#o/p {0, 1, 2, 3, 'World', 'hello'}

Q.40 #What will be the O/P of the code snippet : It's a list & append is used

```
a=[1,"HELLO",2,"wORLD",3,True]
for i in range(4):
    a.append(i)
print(a)
```

#O/P: [1, 'HELLO', 2, 'wORLD', 3, True, 0, 1, 2, 3]

Q.41 #What will be the O/P of the code snippet

```
mydict={}
mydict[1]=2
mydict[2]=3
mydict[3]=4        o/p of mydict={1:2,2:3,3:4}

i=5
while i>=0:
    mydict[i]=i%3
    i-=1
print(len(mydict),mydict[2])
```

#O/P: 6 2

Q.42 A machine learning engineer has a data set with four columns, namely Flat no, area, price, and property. They want to change the column name flat no with house no and price with a value. Which of the following codes is correct for this purpose?

#ANS: df = df.rename(columns={"Flat no": "House no", "price": "value"})

Q.43 #What will be the O/P of the code snippet

```
FHW=open("data.txt","w")
FHW.write("written something")
print(FHW.tell())
print("closed?",FHW.closed)
FHW.close()
print("after closing the file closed?",FHW.closed)
```

#o/p: 17
closed? False
after closing the file closed? True

Q.44 #What should be the value of num1 and num2 to get the output "1"?

```
num1=5
num2=1
if((num1/num2==5) and (num1+num2)>5):
    print("1")
elif((num1-num2)<=1 or (num1% num2)==0):
    print("2")
else:
    print("3")
```

#o/p:5 and 1