Test

1.What is Tuple? Give an example

Tuple is a collection of objects similar to list but immutable and written inside parenthesis.

Example:

Tuple=(“degree”,”masters”,”mphil”,”phd”)

2.What is Inferential statistics?

Inferential Statistics is analysis of data by inferring the properties such as testing, distribution. It deduces result of a population from a sample.

Examples: To know the details of a college we take a sample of students from the college required.

3.Explain Dictionary in detail and give an example.

Dictionary are used to store data values in key : value pairs. They are written in curly braces and have keys and values

Dictionary={'int':6,'float':5.6,'boolean':True}

To get the output we use

Print(Dictionary)

4.What is EDA?

EDA is Exploratory Data Analysis , to find the pattern and relationships in data. It is often compared to detective work.

5.What is compiler and interpreter?

Compilers and interpreters are both programs to convert high level languages into machine language.

A compiler compiles the whole of it at a time where as interpreter compiles one statement at a time.

Interpreter takes less time to compile compared with compiler.

6.What are python features?

- Easy to code and read
- Free and open source
- Expressive
- Cross platform
- Object oriented
- Extensible
- GUI programming support
- High Level Language
- Dynamically typed language
- Large standard library

7.Write python program to add two numbers and print them?

```
In [26]: x=4
         y=45
         print("sum=",x+y)

         sum= 49
```

8.What is descriptive Analytics?

Descriptive Analytics is analysing data by using current or recorded data to identify the relationships or trends

Example: reports available on dashboards

9.What is mean, median and mode .

Mean ,Median Mode are three measures of central tendency

- Mean: it is the average value of data
- Mean= $\frac{um\ of\ observation}{total\ number\ of\ observation}$
- Example: 3 ,5, 1
  Mean=3+5+1/3 =
  9/3=3

Median is the middle data when the data is arranged in ascending or descending order

- If the number of data is even: average of middle terms is median
  3,5,6,7
  Median= 5+6/2= 11/2=5.5
- If the number of data is odd: middle term is median

  3,5,6
  Median= 5
  - Mode is the frequently repeated data

  3,4,5,5,6,7,5
  Mode= 5

10.Explain descriptive statistics and its measures?

Statistics that deal with summarising or describing the characteristics of a data or a populationis descriptive statistics. Measures of descriptive Statistics are

- Measures of central tendency: Mean, Median, Mode
- Measures of dispersion: Range, Mean deviation, Standard deviation,Variance
- Skewness
- kurtosis

11.Write down the importance of statistics?

- Statistics helps in proper and efficient planning of any research work
- It helps in collecting appropriate quantitative data
- It helps in better understanding
- It is important in every field human activity
- Forecasting

12.Explain if else statement with example?

If else statements are utilised when there exist two cases such that if true we get one output or else another. To be precise,

X=4

Y=9

If (x>y):

    Print ("x is greater",x)

Else:

    Print("y is greater",y)

Here, the condition is checked first and 'if'true the statement following will be printed else it will execute the 'else' part

13.Write a program to check the number is even or not

```
In [28]: x= 24
         if (x%2==0):
             print("x is even=",x)
         else:
             print('x is odd=',x)

         x is even= 24
```

14.What are multiple assignments.Explain with example?

Multiple assignments means assigning values to multiple variables in one line

For example :

- a=b=c=2 # assigns all a,b,c the same value
- a,b,c = orange, mango, kiwi # assigns different values

15.Create two list and perform slicing,concatenating and repetition.

```
list1=['Bread', 'Pasta','Veggies','Fruits']
list2 =['Rice','Wheat','Sugar','Pulses']
print('Slicing follows:')
print('From 2 to 5 items of list1= ',list1[2:4])
print('Entireitems of list2=',list2[ : ])
print("to concatenate",list1+list2)
print("To repeat:",list1*2)
```

```
Slicing follows:
From 2 to 4 items of list1=  ['Veggies', 'Fruits']
Entireitems of list2= ['Rice', 'Wheat', 'Sugar', 'Pulses']
to concatenate ['Bread', 'Pasta', 'Veggies', 'Fruits', 'Rice', 'Wheat', 'Sugar', 'Pulses']
To repeat: ['Bread', 'Pasta', 'Veggies', 'Fruits', 'Bread', 'Pasta', 'Veggies', 'Fruits']
```

16.

Example: The given table shows the scores obtained by different players in a match. What is mean, median and mode of the given data?

S.No	Name	Runs Scored
1	Sachin	80
2	Yuvraj	52
3	Virat	40
4	Sehwag	52
5	Rohit	70
6	Harbhajan	1
7	Dhoni	6

Mean = 301/7 = 43

Median =1 ,6,40,52,52,70,80

Odd number of terms : median= 52

Mode= 52

17.Create a list constructor and print it.

```
In [30]: Constructor=['bread', 'pasta','veggies','fruits','rice','wheat','sugar','pulses']
         print('List is given by=',Constructor)
```

```
List is given by= ['bread', 'pasta', 'veggies', 'fruits', 'rice', 'wheat', 'sugar', 'pulses']
```

18.What are loop control statements?

Loop control statement allows to execute repeatedly a block of code. In python two primitive loop commands are while and for loops

```
19. var = 10                    # Second Example
while var > 0:
   var = var -1
   if var == 5:
      continue
   print ('Current variable value :', var)
print ("Good bye!")
```

Analyse the code and give the output

It wont print for 5

```
In [37]: var=10
         while var>0:
             var=var-1
             if var == 5:
                 continue
             print('Current variable value:',var)
             print('Good bye')

Current variable value: 9
Good bye
Current variable value: 8
Good bye
Current variable value: 7
Good bye
Current variable value: 6
Good bye
Current variable value: 4
Good bye
Current variable value: 3
Good bye
Current variable value: 2
Good bye
Current variable value: 1
Good bye
Current variable value: 0
Good bye
```

19.Explain for loop with example?

For loop is used for iterating over a sequence. With a for loop we can execute a set of statements, once for each item in a list,tuple.It does not require an indexing variable to set beforehand. Even strings are iterablen objects, they contain a sequence of characters

Veggies=[“carrot”, “potato”,chillies”]

for x in Veggies :

print(x)

Problem statement.

1. Maria is entering customer data for her web store business. We're going to help her organize her data.

Start by turning this list of customers first names into a list called first_names. Make sure to enter the names in this order and print it.

- Ainsley
- Ben
- Chani
- Depak

2.Access the 3rd customer using index.

3.Add customer 'Fredy' in the list using append method.

```
In [42]: first_names=["Ainsley","Ben","Chani","Depak"]
         print("List of customers first names:",first_names)
         #Access the 3rd customer using index
         print(first_names[2])
         # Add customer 'Fredy' in the list using append method.
         first_names.append('Fredy')
         print(first_names)

         List of customers first names: ['Ainsley', 'Ben', 'Chani', 'Depak']
         Chani
         ['Ainsley', 'Ben', 'Chani', 'Depak', 'Fredy']
```

```
In [ ]: printfirst_names[3]
```

4.Maria wanted to create another list called size 'Regular','medium','large' for her customer.

5.She forgot to add the size for newly added customer, so use append method and add 'medium' for

Customer 'fredy'

In [50]:
```
# Maria wanted to create another list called size 'Regular','medium','large' for her customer.
Size=['Regular','Medum','large']
print(Size)
#She forgot to add the size for newly added customer, so use append method and add 'medium' forCustomer 'fredy'
Size.append('medium')
print(Size)
```

```
['Regular', 'Medum', 'large']
['Regular', 'Medum', 'large', 'medium']
```