

TEST-PANDAS SERIES

1. Consider a given series : SQTR

QTR1 50000

QTR2 65890

QTR3 56780

QTR4 89000

QTR5 77900

Write a program in Python Pandas to create and display the series.

2.

What will be the output produced by the following programming statements 1 & 2?

```
import pandas as pd
```

```
S1=pd.Series(data=[31,41,51])
```

```
print(S1>40)          -->Statement1
```

```
print(S1[S1>40])      -->Statement2
```

3.

Given two series S1 and S2

S1	S2
A	39
B	41
C	42
D	44

A	10
B	10
C	10
D	10

Find the output for following python pandas statements?

a. `S1[:2]*100`

b. `S1 * S2`

c. `S2[: -1]*10`

4.

Consider the following Series object, s

IP	95
Physics	89
Chemistry	92
Math	95

i. Write the Python syntax which will display only IP.

ii. Write the Python syntax to increase marks of all subjects by 10

5.

Consider the following Series object, “company” and its profit in Crores

TCS	350
Reliance	200
L&T	800
Wipro	150

i. Write the command which will display the name of the company having profit>250.

ii. Write the command to name the series as Profit.

6.

Consider two objects a and b. a is a list whereas b is a Series. Both have values 10,20,25,50.

What will be the output of the following two statements considering that the above objects have been created already

a. `print(a*2)` b. `print(b*2)` Justify your answer.

7.

What will be the output of the following:

```
import pandas as pd D={'a':10,'b':11,'c':12}
```

```
S=pd.Series(D,index=['b','c','d','a']) print(S)
```

8.

What will be the output of the following code?

```
import pandas as pd
s = pd.Series(6,index=range(0,5))
print(s)
```

9.

If series s1 is having following data, What would be the result of the command

```
print(s1[3:6])?
```

10.

What will be the output of the following code?

```
import pandas as pd
import numpy as np
s = pd.Series(np.arange(10,50,10))
print(s)
print (s.ndim)
print(s.shape)
print(len(s))
```

11.

Predict the output of the following code.

```
import pandas as pd
import numpy as np
data = {'one':'a','two':'b','three':'c'}
s=pd.Series(data)
print(s.size)
```

12.

Write the output of the following code fragment.

```
import pandas as pd
import numpy as np val1=np.arange(5,25,50,10,25)
ser1=pd.Series(val1,index=['a','b','a','a','b'])
print(ser1)
print(ser1['a'])
print(ser1['b'])
```

13.

Consider the series s4 as given below

0	2.50
1	17.45
2	20.25
3	87.25
4	33.76

What will be the output after executing the following:

```
S4[0]=1.75
S4[2:4]= -23.74
print(S4)
```

14.

A Series consists of 2000 rows of data. Write a statement to print (i) First 100 rows of data (ii) Last 5 rows of data

15.

Consider the Series object s12 that stores the contribution of each section, as shown below:

A	6700
B	8000
C	5400
D	3400

Write code to create the series and display those sections that made the contribution more than Rs. 5600/-

16.

Number of students in class 11 and 12 in three streams('Science', 'Commerce' and 'Humanities') are stored in two series objects c11 and c12. write code to find total number of students in class 11 and 12 , stream wise.

17.

Consider the series s1 and s2 and s3-

	S1	S2		S3	
0	10	0	5	a	3
1	20	1	10	b	6
2	30	2	15	c	9
3	40	3	20	d	10
4	50	4	25	e	11
5	30				
6	35				

Now find the output of the following-

- i) print(S1+S2)
- ii) print(S1*S3)
- iii) print(S1-S2)

18.

Consider the Series object s12 that stores the contribution of each section, as shown below:

D	6700
A	8000
B	5400
C	3400

- i) Write code to create the series and display all its values sorted in descending order.
- ii) Write code to display all its indices sorted in ascending order.

19.

What is the output of the following program:

```
import pandas as pd
import numpy as np
data=np.array(['Mon','Tue','Wed','Thu','Fri','Sat',' Sun'])
s=pd.Series(data)
(s[:4])
print(s[-4:])
```

20.

What is the output of the following program:

```
import pandas as pd
import numpy as np
data=np.array(['Mon','Tue','Wed','Thu','Fri','Sat',' Sun'])
s=pd.Series(data, index=[101,102,103,104,105, 106,107])
print(s[[103,105,107]])
```