

## Holidays Homework Class XII ENGLISH

1. Write a report on:

- (a) the book fair organised in your school recently
- (b) sports day celebration held in your school
- (c) a road accident you witnessed while coming home

2. Write a job application with biodata for:

- (a) the post of accountant in a reputed firm. Attach your biodata.
- (b) for the post of mathematics teacher in St. Stephens public school Noida.
- (c) for the post of computer operator in a reputed company.

3. Write a letter to the editor on:

- (a) increasing number of road accidents due to stray animals.
- (b) unannounced power cuts in your locality.
- (c) increasing awareness for child rights and abolition of child labour

4. Write a formal invitation for:

- (a) the annual sports meet to be organised in your school.
- (b) inviting Chief Guest in the annual day celebration at your school.
- (c) write a reply sending your acceptance for attending the annual function as Chief Guest.

5. Write an article on:

- (a) Child Labour
- (b) Environmental Pollution and global warming.
- (c) Conservation of wild life

6. Write a notice for:

- (a) blood donation camp
- (b) inter school football match
- (c) meeting of student council with the principal

7. Write two unseen passages for comprehension with solutions.

8. Write 25 inspirational quotes.

9. Read any book of your choice and write its review.

10. Revise the chapters completed in the class.

KV NO 2 BHOPAL

HOLIDAY HOME WORK 2023-24

CHEMISTRY

CLASS – 12<sup>th</sup>

1. Do text book reading of unit1 (solutions) and unit2 (electro chemistry), Practice all In-text exercises (solved and unsolved questions) and back exercise questions.

2. Revise Nomenclature of organic functional groups

3. Revise hydrocarbons and learn all name reactions of class11

4. Investigated project: Prepare typed report of anyProject

: suggestive are-

1. Study of presence of oxalate ions in guava fruit at different stages of ripening.
2. Study of casein quantity present in different sample of milk.
3. Preparation of soyabean milk and it's comparison with natural milk.
- 4 . Potassium bisulphate as a food preservative.
5. Study of digestion of starch by salivary amylase.
6. Comparative study of rate of fermentation of various food materials.
7. To extract the essential oils, present in the naturally occurring materials
8. Study of adulterants in food -stuff

**Thank you**

**Have a safe and happy holiday**

**Regards,**

**Jagrati Sharma (PGT chemistry)**

**Barkha Tekwani (PGT chemistry)**

KENDRIYA VIDYALAYA NO. 2 BHOPAL

HOLIDAY HOMEWORK

## CLASS- 12 (A,B,C)

### SUBJECT- INFORMATICS PRACTICES

1. PDF OF SERIES & DATAFRAME QUESTIONS OF STUDY MATERIAL ON WHATSAPP GROUP TO SOLVE SERIES BASED QUESTIONS
2. NCERT QUESTIONS OF CHAPTER 1
3. FOLLOWING QUESTIONS TO SOLVE IN HW COPY

### **QUESTIONS BASED ON PANDAS SERIES**

#### Questions

<b>Q.1-</b>	<p>Given the following Series1</p> <table border="1" data-bbox="711 804 938 984"><tbody><tr><td>A</td><td>100</td></tr><tr><td>B</td><td>200</td></tr><tr><td>C</td><td>300</td></tr><tr><td>D</td><td>400</td></tr><tr><td>E</td><td>500</td></tr></tbody></table> <p>Write the command to create above Series and then double the value in series and store in another series named Series2</p>	A	100	B	200	C	300	D	400	E	500
A	100										
B	200										
C	300										
D	400										
E	500										
<b>Q.2-</b>	<p>State whether True or False</p> <ol style="list-style-type: none"><li>a. A series object is size mutable.</li><li>b. A Dataframe object is value mutable</li></ol>										
<b>Q.3-</b>	<p>Consider a given Series , Series1:200 700</p> <p>201 700 202 700 203 700 204 700</p> <p>Write a program in Python Pandas to create the series and display it.</p>										

**Q.4-**

Consider the following Series object, sIP 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.

<p><b>Q.5-</b></p>	<p>Consider a given series : SQTR</p> <table border="1" data-bbox="289 163 623 344"> <tr><td>QTR1</td><td>50000</td></tr> <tr><td>QTR2</td><td>65890</td></tr> <tr><td>QTR3</td><td>56780</td></tr> <tr><td>QTR4</td><td>89000</td></tr> <tr><td>QTR5</td><td>77900</td></tr> </table> <p>Write a program in Python Pandas to create and display the series.</p>	QTR1	50000	QTR2	65890	QTR3	56780	QTR4	89000	QTR5	77900																										
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QTR5	77900																																				
<p><b>Q.6-</b></p>	<p>What will be the output produced by the following programming statements 1 &amp; 2? <code>import pandas as pd S1=pd.Series(data=[31,41,51]) print(S1&gt;40)</code> --&gt;Statement1 <code>print(S1[S1&gt;40])</code> --&gt;Statement2</p>																																				
<p><b>Q.7-</b></p>	<p>Given two series S1 and S2</p> <table data-bbox="289 743 867 919"> <tr> <td><b>S1</b></td> <td></td> <td><b>S2</b></td> <td></td> </tr> <tr> <td>A</td> <td>39</td> <td>A</td> <td>10</td> </tr> <tr> <td>B</td> <td>41</td> <td>B</td> <td>10</td> </tr> <tr> <td>C</td> <td>42</td> <td>D</td> <td>10</td> </tr> <tr> <td>D</td> <td>44</td> <td>F</td> <td>10</td> </tr> </table> <p>Find the output for following python pandas statements?</p> <ol style="list-style-type: none"> <li><code>S1[ : 2]*100</code></li> <li><code>S1 * S2</code></li> <li><code>S2[ : :-1]*10</code></li> </ol>	<b>S1</b>		<b>S2</b>		A	39	A	10	B	41	B	10	C	42	D	10	D	44	F	10																
<b>S1</b>		<b>S2</b>																																			
A	39	A	10																																		
B	41	B	10																																		
C	42	D	10																																		
D	44	F	10																																		
<p><b>Q.8-</b></p>	<p>Given the following Series S1 and S2:</p> <table data-bbox="289 1289 1367 1465"> <tr> <td><b>S1</b></td> <td></td> <td><b>S2</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td>A</td> <td>10</td> </tr> <tr> <td></td> <td></td> <td>B</td> <td>20</td> </tr> <tr> <td></td> <td></td> <td>C</td> <td>30</td> </tr> <tr> <td></td> <td></td> <td>D</td> <td>40</td> </tr> <tr> <td></td> <td></td> <td>A</td> <td>5</td> </tr> <tr> <td></td> <td></td> <td>B</td> <td>4</td> </tr> <tr> <td></td> <td></td> <td>C</td> <td>6</td> </tr> <tr> <td></td> <td></td> <td>D</td> <td>8</td> </tr> </table> <p>Write the command to find the multiplication of series S1 and S2</p>	<b>S1</b>		<b>S2</b>				A	10			B	20			C	30			D	40			A	5			B	4			C	6			D	8
<b>S1</b>		<b>S2</b>																																			
		A	10																																		
		B	20																																		
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		A	5																																		
		B	4																																		
		C	6																																		
		D	8																																		
<p><b>Q.9-</b></p>	<p>Consider a given Series , Subject:</p> <table data-bbox="289 1598 643 1745"> <tr><td>ENGLISH</td><td>75</td></tr> <tr><td>HINDI</td><td>78</td></tr> <tr><td>MATHS</td><td>82</td></tr> <tr><td>SCIENCE</td><td>86</td></tr> </table> <p>Write a program in Python Pandas to create this series</p>	ENGLISH	75	HINDI	78	MATHS	82	SCIENCE	86																												
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**Q.10-**

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.

**Q.11-**

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.

<p><b>Q.12-</b></p>	<p>Given a Pandas series called Sample, the command which will display the last 3 rows is .</p> <ul style="list-style-type: none"> <li>a. <code>print(Sample.tail(3))</code></li> <li>b. <code>print(Sample.Tail(3))</code></li> <li>c. <code>print(Sample.tails(3))</code></li> <li>d. <code>print(Sample.Tails(3))</code></li> </ul>
<p><b>Q.13-</b></p>	<p>What will be the output of the following code?</p> <pre>import pandas as pd s = pd.Series(6,index=range(0,5))print(s)</pre>
<p><b>Q.14-</b></p>	<p>If series s1 is having following data,</p> <pre> 1      6 3      1 5      3 7      5 9      4 11     8 13     7 15     4 17     6 19     7 dtype: int64</pre> <p>What would be the result of the command <b><code>print(s1[3:6])</code></b>?</p>
<p><b>Q.15-</b></p>	<p>What will be the output of the following code?</p> <pre>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))</pre>
<p><b>Q.16-</b></p>	<p>Write a program to create a Series having 10 random numbers in the range of 10 and 20</p>

<b>Q.17-</b>	<p>Consider the following Series 's'-</p> <pre>0    4.0 1    5.0 2    7.0 3    NaN 4    1.0 5   10.0 dtype: float64</pre> <p>(i) Write a Python code to add 1 to all the elements. (ii) Write a code to replace all NaN with 0.</p>
<b>Q.18-</b>	<p>Predict the output of the following code.</p> <pre>import pandas as pd import numpy as np data = {'one':'a','two':'b','three':'c'} s=pd.Series(data) print(s) print(s.size)</pre>
<b>Q.19-</b>	<p>Create a Series object S1 using a python sequence [2,4,6,8] and default indices.</p>
<b>Q.20-</b>	<p>Write the output of the following code fragment.</p> <pre>import pandas as pd s2=pd.Series(["i","am", "a","student"]) print(s2)</pre>



<b>Q.21-</b>	Write the output of the following code fragment. <pre>import pandas as pd s1=pd.Series(200,index=range(2,13,2)) print(s1)</pre>
<b>Q.22-</b>	Write the output of the following code fragment. <pre>import pandas as pd s1=pd.Series(range(2,11,2), index=[x for x in "abcde"]) print(s1)</pre>
<b>Q.23-</b>	Write the output of the following code fragment. <pre>import pandas as pd import numpy as np x=np.arange(10,15) s3=pd.Series(index=x, data=x*2) s4=pd.Series(x**2,x) print(s3) print(s4)</pre>
<b>Q.24-</b>	<p>Sequences section and contribution store the section name ('A','B','C','D','E') and contribution(8900,8700,7800,6500,nil) for charity. Your school has decided to donate more contribution by each section, so donation has been doubled.</p> <p>Write code to create series object that stores the contribution amount as the values and section name as indexes with data type as float32.</p>
<b>Q.25-</b>	Write the output of the following code fragment. <pre>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'])</pre>

<p><b>Q.26-</b></p>	<p>Consider a series object s10 that stores the number of students in each section of class 12 as shown below. First two sections have been giventask for selling tickets @ Rs.100/- per ticket as a part of social experiment. Write code to create the series and display how much section A and B have collected.</p> <p>A     39  B     31  C     32  D     34  E     35</p>
<p><b>Q.27-</b></p>	<p>Consider the series s4 as given below0           2.50</p> <p>1   17.45  2   20.25  3   87.25  4   33.76</p> <p>What will be the output after executing thefollowing:  S4[0]=1.75 S4[2:4]= -23.74  print(S4)</p>
<p><b>Q.28-</b></p>	<p>Consider the following code-import pandas  s1=pandas.Series([2,3,4,5,6],index=['a','b','c','d','e'])  s1[1:5:2]=345.6  s1[2:4]= -14.65  print(s1)  What will be the output after executing the code.</p>
<p><b>Q.29-</b></p>	<p>Consider the Series object s12 that stores the contribution of each section, as shown below:A  6700  B    8000  C    5400  D    3400</p> <p>Write code to modify the amount of section 'A' as 8800 and for section 'C' and 'D' as 7700. Print the changed object.</p>
<p><b>Q.30</b></p>	<p>A Series object trainingdata consists of 2000 rows of data. Write a program to print (i) First 100 rows of data (ii) Last 5 rows of data</p>

<p><b>Q.32-</b></p>	<p>Consider the Series object s12 that stores the contribution of each section, as shown below:</p> <pre>A    6700 B    8000 C    5400 D    3400</pre> <p>Write code to create the series and display those sections that made the contribution more than Rs. 5600/-</p>																								
<p><b>Q.33-</b></p>	<p>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.</p>																								
<p><b>Q.34-</b></p>	<p>Consider the series s1 and s2 and s3-</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 20px;">S1</td> <td style="padding-right: 20px;">S2</td> <td>S3</td> </tr> <tr> <td>0 10</td> <td>0 5</td> <td>a 3</td> </tr> <tr> <td>1 20</td> <td>1 10</td> <td>b 6</td> </tr> <tr> <td>2 30</td> <td>2 15</td> <td>c 9</td> </tr> <tr> <td>3 40</td> <td>3 20</td> <td>d 10</td> </tr> <tr> <td>4 50</td> <td>4 25</td> <td>e 11</td> </tr> <tr> <td></td> <td>5 30</td> <td></td> </tr> <tr> <td></td> <td>6 35</td> <td></td> </tr> </table> <p>Now find the output of the following-</p> <ol style="list-style-type: none"> <li>i) print(S1+S2)</li> <li>ii) print(S1*S3)</li> <li>iii) print(S1-S2)</li> </ol>	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	
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																								



<p><b>Q.35-</b></p>	<p>Consider the Series object s12 that stores the contribution of each section, as shown below:</p> <pre>D 6700 A 8000 B 5400 C 3400</pre> <p>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.</p>
<p><b>Q.36</b></p>	<p><b>Given a Series object shown below:</b></p> <pre>A 6700 B 8000 C 5400 D 3400 dtype : int64</pre> <p>Why is following code producing error while working on Series object <b>s13</b>?</p> <pre>import pandas as pd s13.index=range(0,5) print(s13)</pre>
<p><b>Q.37</b></p>	<p><b>What will be the output of the following program:</b></p> <pre>import pandas as pd first=[7,8,9] second=pd.Series(first) s1=pd.Series(data=first*2) s2=pd.Series(data=second*2) print("Series1:") print(s1) print("Series2:") print(s2)</pre>
<p><b>Q.38</b></p>	<p><b>What is the output of the following program:</b></p> <pre>import pandas as pd import numpy as np data=np.array(['Mon','Tue','Wed','Thu','Fri','Sat','Sun']) s=pd.Series(data) print(s[:4]) print(s[-4:])</pre>
<p><b>Q.39</b></p>	<p><b>What is the output of the following program:</b></p> <pre>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]])</pre>

**Q.40**

**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)`

SHIKHA CHOURASIA

PGT CS