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| **PT1/IPCQP/1222/A 25-APR-2022** | | | | |
| **PERIODIC TEST- I (2022-23)** | | | | |
| **Subject: INFORMATICS PRACTICES**  **Grade: XII** | | Max. Marks:35Time:80 Mins | | |
| **Name:** | | | **Section:** | **Roll No:** |
| **General Instructions:**   * **The paper is divided into 3 Sections- A, B and C.** * **Section A, consists of Question 1 to 8 and each carry 1 marks.** * **Section B, consists of Question number 9 to 14 each carry 2 marks** * **Section C, consists of Question number 15 to 19 and each carry 3 marks.** * **Attempt all Questions.** * **The paper contains 3 pages.** | | | | |
|  | **Section A(1 mark each)** | | | |
| **1.** | To display first element of a Series object S, you will write   1. S[:] 2. S[0] 3. S[1] 4. S[:2] | | | |
| **2.** | To display first four elements of a Series object S, you may write   1. S[:3] 2. S[:4] 3. S[3:] 4. all of these | | | |
| **3.** | What will be the output for the following code?  import pandas as pd  S = pd. Series([1,2,3,4,5],index = ['a', 'b', 'c', 'd', 'e'])  print ( s[ 'b'] )  a. 1  b. 2  c. 3  d. 4 | | | |
| **4.** | Write the statement to get NewDelhi as output using positional index.  import pandas as pd  S1 = pd.Series(['NewDelhi', 'WashingtonDC', 'London', 'Paris'],  index=['India', 'USA', 'UK', 'France'])  a. print(S1[0])  b. print(S1[‘India’])  c. Both of the above  d. print(S1.India) | | | |
| **5.** | Write the output of the following code: -  >>> S1=pd.Series(14, index = ['a', 'b', 'c'])  >>> print(S1) | | | |
| **6.** | Fill in the blank to get the ouput as 3  import pandas as pnd  S1=pnd.Series([1,2,3,4], index = ['a','b','c','d'])  print(S1[\_\_\_\_\_\_\_\_\_\_\_]) | | | |
| **7.** | Write the full form of  NaN  Panda | | | |
| **8.** | Shardul wants to print first 4 values from the beginning of the series and 4 values from the end of the series S1. Write the commands to do so. | | | |
|  | **Section B (2 marks each)** | | | |
| **9.** | What will be the output of the following?  import pandas as pd  A=[9,10,11]  B=pd. Series(A)  Ob1=pd.Series(data=A\*2)  Ob2=pd.Series(data=B\*2)  print(“Ob1”)  print(Ob1)  print(“Ob2”)  print(Ob2) | | | |
| **10.** | What will be the output of the following code?  import pandas as pd  import numpy as np  A=np.array([1,2,3,4,5,6,7,8])  print(A[:3])  print(A[-3:]) | | | |
| **11.** | Series is \_\_\_\_\_\_\_\_\_\_\_ mutable and \_\_\_\_\_\_\_\_\_\_ immutable.  Explain the meaning of Mutable and Immutable. | | | |
| **12.** | Write a Pandas program to add, subtract, multiple and divide two Pandas Series. | | | |
| **13.** | WAPS to create a series from below dictionary  {1:”Apple”,2:”Banana”,3:”Kiwi”,4:”Orange”}  The index of series should be [‘a’,’b’,’c’,’d’] | | | |
| **14.** | Virat has created a Series ‘sale’ which stores sale of a week.  1 40.0  2 32.0  3 NaN  4 44.0  5 28.0  6 NaN  7 50  His boss asked him to find the count of missing values. Write the command for the same. | | | |
|  | **SECTION C(3 marks each)** | | | |
| **15.** | Given the series A as shown below  A 7600  B 8900  C 40000  D 23000  Why is the following code producing an error?  import pandas as pd  A.index=range(0,5)  print(A)  Write the corrected code. | | | |
| **16.** | Write the purpose of following Attributes of series giving example of each   1. dtype 2. nbytes 3. ndim 4. itemsize 5. hasnans 6. empty | | | |
| **17.** | Virat has created a Series ‘sale’ which stores sale of a week.  1 40.0  2 32.0  3 NaN  4 44.0  5 28.0  6 NaN  7 50  His boss asked him to do some task which are given below. Help him to write appropriate  command for them.   1. Alter the index of ‘sale’ to weekday names. 2. Display the sale between Tuesday to Friday 3. Check if series is having Nan values. | | | |
| **18.** | WAPS to create Series (S1) as below and find which sections made contribution of more than 5500.  A 6500  B 5600  C 2300  D 4500 | | | |
| **19.** | Differentiate between Series and Dataframe.(3 points each) | | | |

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