 INDIAN SCHOOL AL WADI AL KABIR

Worksheet, 2025-26

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| **Class: XII** | **SUB: INFORMATICS PRACTICES** | **Date of Completion:**  **03.08.2025** |
| **Execute programs in Python Editor** | **TOPIC : Practical Questions** | **To be written in the record book** |

1. Write a program to create series from a list of numbers, numpy array with range( ) to genetate numbers 0 to 5 and a dict with 4 subject names and marks

2. Write a Program in Pandas to create series using User-defined Dictionary that contains stock details like itemname and qty of different items.

3. Given a series that stores the marks of 10 students in a class. Write code to find out the biggest and the smallest 3 marks from the given series.

4. Create a Series that stores the salary of 10 employees. Write a program to display the salary of those employees who are getting more than 5000.

5. Create a Series **AirticketSer** that stores the 5 Airfare as values and Airways as index. Write a

program to display the Airfare of those airways which are priced less than 5000.

6. Create a series **DataSeries** with the scalar value 50 for the indices S1, S2, S3, S4 and S5. Also

write the coding to remove the element from the index S3.

7. Create two series **S2** and **S3** with the following elements:

**S2**

1 25

2 15

3 10

4 30

5 12

**S3**

2 5

3 2

4 3

5 3

6 8

Perform the following operations:

i) Perform the division operation S2 // S3

ii) Perform the multiplication operation by using mul() method.

iii) Use fill\_value property to add two series with the default value 100.

iv) To display all the elements of series S2 more than 10.

8. Create the following series **COMPUTER** with the following elements and write the

statements to perform the operations given below:

**COMPUTER**

DELL 1300

HP 4250

APPLE 3280

LENOVO 9375

ACER 7890

i) Give a Name “Computer Devices” to the series COMPUTER.

ii) Give a Name to the index as “BRAND”.

iii) Display the no. elements of the series.

iv) Display the data type of the given series.

v) Display the dimenstion of the given series.

9. Create the following series **Mobile** with the following elements and write the

statements to perform the operations given below:

**MobilePhone**

Mob1 Redmi Note 11Pro

Mob2 Apple 14

Mob3 Samsung Galaxy

Mob4 Realme 50A

Mob5 Nokia G10

i) Display the values of the given indices Mob1 to Mob4 using loc.

ii) Display the values of the given indices Mob1, Mob3, Mob5 using iloc.

iii) Display the values of the series in reverse order .

10. Create the following series **TV** with the elements and write the statements to perform the

operations given below:

**TV**

Ikon 47.900

Samsung 138.390

Sony 145.200

LG 124.300

PHILIPS 98.375

i) Display the values of Samsung, Sony and LG using loc method.

ii) Display the values of Ikon and Samsung using iloc method.

11. Write a program to create 2 series S1 and S2 , where S1 contains the name and mark of students and S2 contains name and age of students. Create a dataframe from S1 and S2.

12. Write a program to create a dataframe containing empno, ename and salary of 5 employees. Change the index as [a,b,c,d,e] and display the first two and the last two records.

13. Write a Program to enter multiple values based data in multiple columns/rows to represent cityname highest temp and lowest temp as list of lists and create a dataframe from this list. Display the highest temperature of the second , third and fourth city using iloc.

14. Write a program to create a dataframe with the help of a dictionary of list that represents name , salary and commissison of 5 employees and sort the dataframe in descending order of their salary.

15. Write a program to create dataframe for 5 students including name and 3 subject marks using dictionary of series and add new columns Total that contains the total marks obtained by each student .

16. Write a Program to read CSV file that contains itemno,itemname, qty and price and show its data in python using dataFrames and pandas.