INDIAN SCHOOL SOHAR
UNIT TEST I (2024-25)
INFORMATICS PRACTICES (065)
SET-1

CLASS :XII   MAX.MARKS :20

DATE : 21/05/2024   TIME: 40 mins.

General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A has 6 questions each carrying 01 mark.
4. Section B has 1 Very Short Answer type question carrying 02 marks.
5. Section C has 1 Short Answer type question carrying 03 marks.
6. Section D has 1 Long Answer type question carrying 04 marks with internal choice provided against **part iii**.
7. Section E has 1 internal choice based question carrying 05 marks.

SECTION A

1. To specify the data-type for a Series object, you can use _____ attribute.   1
   a. d-type   b. dtype
   c. d_type   d. d_types

2. What type of error is returned by the following statements?   1
   import pandas as pa
   pa. Series ([1, 2, 3, 4,], index = ['a', 'b', 'c'])
   a. Value Error   b. Name Error
   c. Syntax Error   d. Index Error

3. Which method is used to delete row(s) from DataFrame?   1
   a. drop()   b. del()
   c. remove()   d. delete()

4. DF[:] = 65 , will set _____ values of a DataFrame 'DF' to 65.   1
   a. First row   b. First column
   c. all   d. none of the above

Q5 and Q6 are **ASSERTION AND REASONING** based questions. Mark the correct choice as :

a.   Both A and R are True and R is the correct explanation for A
b.   Both A and R are True and R is not the correct explanation for A
c.   A is True but R is False
d.   A is False but R is True

5.   **Assertion (A) :** iterrows() is a function that can iterate over horizontal subsets   1
     of a dataframe.

     Reason (R) : It returns a list containing row index/label and a series for every

row.

6. **Assertion (A):- empty** attribute : This property returns True if the Dataframe   1
is empty otherwise return False.
Reason (R) : empty attribute of Dataframe does not help to check whether a
Dataframe is empty or not?

SECTION-B
7. Differentiate between Series and lists.   2

SECTION-C
8. Write the code in python to create and display: 1+2
i. A Series object **s1** using lists.

1	Acer
2	Dell
3	Lenovo
4	NaN

ii. A Dataframe object **movies** using dictionary of lists**.**

	Lang	**Sequels**	**Collection**
LOTR	English	4	22
Undisputable	Russian	5	12
Aladdin	Persian	2	2.5

SECTION-D
9. A data analyst has been given two Series objects **ser1** and **ser2** as follows: 1+1+2

	ser1			ser2
A	12.5		**A**	7.1
B	34.8		**C**	8.2
C	56.7		**D**	15.6
D	17.3		**E**	12.2
E	NaN		**F**	9.0

Help him/her in answering the questions given below:

i.   Display the 3rd element from **ser2**.

ii.   Delete the 2nd element from **ser1.**

iii.   Predict the output of the following code:

s3=ser1-ser2

print("Result ", s3,sep="\n")

OR

Predict the output of the following code:

print(ser1<20)

print(ser2[:3:2])

SECTION E
10. Given below is Dataframe named **twelve** which stores the details of marks   5
scored by 5 students.

```
   NAME ENGLISH ECO BST ACC  IP
1  YATRA      89  78  56  98  65
2  DHRUV      79  78  89  97  87
3  RINKU      74  85  96  69  58
4   VASU      85  94  76  58  88
5 KRUTIK      75  95  57  59  86
```

Write the statement(s) in Python to do the following:

i.   Display the marks of students in ECO and IP.

ii.   Change the name of the student from VASU to VARUN permanently.

iii.   Delete rows 1 and 3.

iv.   Add a new row **6** with values : John,90,78,68,77,89.

v.   Display the score of DHRUV in BST.

<p align="center">OR</p>

i.   Display the details of first 2 students.

ii.   Increase the marks of RINKU in IP by 2.

iii.   Display only the names of those students who have scored more than 90 in IP.

iv.   Delete the column ECO.

v.   Display the Dataframe in descending order of NAME.

<p align="center">**********************************</p>