ONLINE EVALUATION 2020-21
INFORMATICS PRACTICES (065)

STD XII

MARKS:40

SECTION A

1. **Find the out put of the following program:**   **2**
   ```
   import numpy as np
   sales=np.array([18000,12000,14900,20000,37000,10500])
   print(sales[2:5])
   print(sales[:3])
   ```

2. find the output of the following:-   2
   ```
   list1=["Dance','Music','violin', 'guitar','drums']
   list2=[100,200,300,400,500,600]
   list3=list1[:2]
   list4=list2[2:5]
   print(list3)
   print(list4)
   ```

3. Mr Sanjeev wants to plot a bar graph and line chart for the given set of values of subjects on x-axis and number of students who opted for that subject on y-axis   2

   Complete the code to perform the following for bar graph:-
       i)To plot the bar graph in statement 1
       ii)To display the graph in statement 2

   Complete the code to perform the following for line chart:-   2
       i)To plot the line chart using given lists in statement1
       ii)To give a y axis label named as 'points'in statement 2

   ```
   import matplotlib.pyplot as plt
   x=['hindi','english','science','maths']
   y=[10,20,30,40]
   -----------------------------------Statement 1
   -----------------------------------Statement 2
   ```

4. **Find the output of the following dataframe:**   **1**
   ```
   import pandas as pd
   df1=pd.DataFrame(["first","second"],columns=['col1'])
   print(df1)
   ```

5. **Write a Python program to display a bar chart of the popularity of programming Languages data given below :**   **2**
   Programming languages: Java, Python, PHP, JavaScript, C#, C++
   Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7 (respectively)

6. **Write Output of Following Code ?**   **2**
   ```
   import numpy as np
   ```

```
A=np.arange(4)
print(A)
B=np.arange(12).reshape(2,6)
print(B)
```

7. **Write a program to display which sections made a contribution more than Rs.5500/-.Series Object s11 stores the charity contribution made by each section.** 2
   A   6700
   B   5600
   C   5000
   D   5200

8. **Consider a set of information for an Exam conducted for students for the following details:** 6

names	marks	trials	passed
Sanya	95	2	Yes
Krish	70	3	No
Anna	65	1	No
ram	92	2	yes

Write a pandas code to create a dataframe named df with the above information with column names as "names","marks","trials","passed"
   i) Display the first 3 rows of the DataFrame
   ii) Display Name and marks columns only from the DataFrame
   iii) Display the rows where the price is greater than 90
   iv) Display last 2 rows.
   v) To sort the DataFrame first by 'name' in descending order, then by 'marks' in ascending order.
   vi) To change the marks in 3rd row (i.e for index 2) to 67

9. Write a program to add two series.   2

10. find the output: 2

```
import numpy as np
marks=np.array([23,13,56,45,90,75])
print(marks[2:5])
print(marks[:2])
print(marks[1:4])
print(marks[3:])
```

SECTION B

Give one word answer to the following questions: (1 MARKS EACH)
   i.   An attribute that is uniquely identify column key.

   ii.   A SQL command used to display the structure of a table in MySQL.

iii. A SQL command used to remove duplicate rows from a SELECT query.

iv. Give an Example of two DDL commands.

v. A relation in MySQL has 5 attributes and 8 tuples. What will be the cardinality and degree of the relation?

SECTION-C

Sample data is given for STUDENT table. Answer the queries that follow. Sample Data in Student Table: (5)

ROLL NO	SNAME	GENDER	DOB	HOUSEID	FEES	HOBBY
1001	RAVI	M	2002-01-20	10	850	HOCKEY
1002	AMAR	M	2001-03-20	11	550	SOCCER
1003	SUJA	F	2004-11-25	10	650	KARATE
1004	RUMA	F	2003-12-31	12	650	SKATING
1005	SIJU	M	2002-09-11	13	550	KARATE
1006	ARUNA	F	2001-12-20	10	750	HOCKEY
1007	HYDER	M	2004-09-18	11	850	NULL
1008	RAINA	M	2005-08-21	12	850	SOCCER

i. Write SQL query to display the details of STUDENT table in the descending order of the FEES.
ii. Write SQL query to display the SNAME, GENDER and FEES for all the students whose HOUSEID is either 10 or 11 or 13.
iii. Write SQL query to display the SNAME, FEES and HOBBY for all the students who do not have a hobby.
iv. Write SQL query to display the SNAME and GENDER for all the students who are paying fees in the range of 600 to 800.
v. Write SQL query to display the ROLLNO and SNAME for all the students whose SNAME is ending with 'A'.
vi. Write SQL query to display the STUDENT details whose year of birth is 2002.
vii. Update the FEES by increasing Rs. 1000 for female student.
viii. SELECT MAX(FEES) from student;
ix. SELECT COUNT(DISTINCT(HOBBY)) FROM student;
x. SELECT SNAME,FEES FROM STUDENT WHERE FEES > 750;
Q4.

SECTION-D

a) Write the output of the following SQL queries: (5)
   (i)SELECT POWER(2,3);
   (ii)SELECT SUBSTR('GURU POOJA",2,3);
   (iii)SELECT TRUNCATE (192.672, 1);
   (iv) SELECT ROUND (562.12, -2);
   (vi)) SELECT INSTR('Coordination ','e');

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