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| **FIRST TERM EXAMINATION - (2023-24)** | | | | |
| **SUBJECT: INFORMATICS PRACTICES (PYTHON)**  **GRADE: XII** | | | MAX. MARKS: 70TIME: 3 Hrs | |
| **SECTION A** | | | | |
| 1. | **Which type of values will not be considered by SQL while executing the following statement?** | | | 1 |
|  | 1. Numeric value | 1. Text value | |  |
|  | 1. Null value | 1. Date value | |  |
| 2. | **If column “Fees” contains the data set (5000,8000,7500,5000,8000), what will be the output after the execution of the given query?**  **SELECT SUM (DISTINCT Fees) FROM student;** | | | 1 |
|  | 1. 20500 | 1. 10000 | |  |
|  | 1. 20000 | 1. 33500 | |  |
| 3. | Which SQL statement do we use to find out the total number of records present in the table ORDER | | | 1 |
|  | 1. SELECT \* FROM ORDERS; | 1. SELECT COUNT(\*) FROM ORDERS; | |  |
|  | 1. SELECT FIND(\*) FROM ORDERS; | 1. SELECT SUM() FROM ORDERS; | |  |
| 4. | Which of the following statement will import pandas library? | | | 1 |
|  | 1. Import pandas as pd | 1. Import Pandas as py | |  |
|  | 1. import pandas as pd | 1. import panda as pd | |  |
| 5. | **To get the number of elements in the series object, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ attribute is used.** | | | 1 |
|  | 1. index | 1. size | |  |
|  | 1. itemsize | 1. ndim | |  |
| 6. | **Missing data in pandas object I represented through:** | | | 1 |
|  | 1. Null | 1. None | |  |
|  | 1. Missing | 1. NaN | |  |
| 7. | To delete a column from a DataFrame, you may use \_\_\_\_\_\_\_\_\_\_\_\_\_\_ statement. | | | 1 |
|  | 1. remove | 1. del | |  |
|  | 1. drop | 1. cancel | |  |
| 8. | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will get the transpose of a dataframe D1. | | | 1 |
|  | 1. D1.T | 1. D1.Transpose | |  |
|  | 1. D1.Swap | 1. All of these | |  |
| 9. | **a)** DF[“Marks”]=[23,24,32] | | | 1 |
| 10. | c) BETWEEN | | | 1 |
| 11. | **d) sum( )** | | | 1 |
| 12. | Comma Separated Values | | | 1 |
| 13. | a) True | | | 1 |
| 14. | Df=pd.DataFrame() | | | 1 |
| 15. | 111  222  NAn | | | 1 |
| 16. | **c)** | | | 1 |
| 17. | c | | | 1 |
| 18. | Assertion (A): DataFrame has both a row and column index.  Reasoning (R): A DataFrame is a two dimensional labelled data structure like a table of MySQL.  Mark the correct choice as  i. Both A and R are true and R is the correct explanation for A  ii. Both A and R are true and R is not the correct explanation for A  iii. A is True but R is False  iv. A is false but R is True | | |  |
| **SECTION B** | | | | |
| 19. | The problem with the given SQL query is that WHERE clause should not be used with Group By clause. To correct the error, HAVING clause should be used instead of WHERE. Corrected Query: SELECT HOUSE, COUNT(\*) FROM STUDENT GROUP BY HOUSE HAVING HOUSE= ‘RED’ OR HOUSE=’YELLOW’;  1 Mark for error identification 1 Mark for writing correct query | | | 2 |
| 20. | The ORDER BY clause is used to show the output of the SELECT query in a sorted manner as per the field name given in the ORDER BY clause. The result can be arranged in the ascending or descending order of the mentioned field.  The GROUP BY clause of a SELECT query is used to group rows in a given field and then perform the mentioned action such as apply an aggregate function like min(), max() etc. on the entire group or display a group as per a specific condition(through HAVING clause) | | | 2 |
| 21. | St={‘Amazon’ :18, ‘Nile’ :20 , ‘ Danube’ :20, ‘ Indus’ :18}  S1=pd.Series(St)  (1 mark for each correct python statement) | | | 2 |
| 22. | 1. The index labels of df will include Q1,Q2,Q3,Q4,A,B,C 2. The column names of df will be: 1,2   (1 mark for each correct answer) | | | 2 |
| 23. |  | | | 2 |
| 24. | 0  2 Banana  3 Mango  0  4 Orange  5 Litchi | | | 2 |
| 25. | import pandas as pd  Dic={ ‘empno’: (101,102,103,104), ’name’:(‘a’,’b’,’c’,’d’), ’salary’: (3000,5000,8000,9000)}  df=pd.DataFrame(Dic)  df.to\_csv(“a.csv”) | | | 2 |
| **SECTION C** | | | | |
| 26. | 1. print(df1.add(df2)) 2. df2=df2.rename(index={0:’a’,1:’b’,2:’c’,3:’d’}) 3. print(df1[df1[third]>45]) | | | 3 |
| 27. |  | | | 3 |
| 28. | CREATE TABLE | | | 3 |
| 29. | * + 1. Select sum(salary) from employee where zone=”west”     2. To count no of employees without any grade.   iii.To display zone wise highest salary and lowest salary. | | | 3 |
| 30. | i)9876.99+15999;   1. Max salary   159999  Min salary  6575.99   1. (12345.50+6575.99)/2 2. No output 3. Length(drivername)   13  11 | | | 3 |
| **SECTION D** | | | | |
| 31. | Qns (a) to (c)    Qns (d) and (e)  (d)    (e) | | | 5 |
| 32. |  | | | 5 |
| 33. | Write the SQL queries which will perform the following operations   1. select year(‘2023-05-15’); 2. select lower(‘ABC@XYZ.COM’); **or** select lcase(‘ABC@XYZ.COM’); 3. select ltrim(‘my country’); 4. select date(now()); 5. select pow(10,6); | | | 5 |
|  | **SECTION E** | | |  |
| 34. | 1. sql 2. 8 3. 7756.5 4. ion | | | 4 |
| 35. | Output:  i. (5,4)  II. | | | 4 |

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