

BCM SCHOOL BASANT AVENUE
CLASS XII
SUBJECT - IP
ASSIGNMENT SOLUTION

| Q.N | SECTION-A | Marks |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 1. | from pd import pandas State whether the following statement is True or False. E-waste increasing day by day is a blessings for environment. False | 1 |
| 2. | The purpose of distinct clause in a SQL statement is to: a) show all the rows in a column of table b) show all duplicate values in a column c) Remove all duplicate values in a column d) sort all the results based on a column | 1 |
| 3. | NIC stands for a. Network Information Centre b. Network Integration Card c. Network Interface Card d. Network Initiate Card | 1 |
| 4. | SQL function to find the lowest among group of values a. minimum() b. min() c. low() d. lowest() | 1 |
| 5. | Which of the following is the correct way to import the Pandas library in Program? a. import pd as pandas b. import pandas c. from pandas import pd | 1 |
| 6. | a) 0 1 1 2 2 3 3 4 | 1 |
| 7. | Which of the following function is used to save the figure/chart? a) save() b) savefigure() | 1 |

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| | <p>c) savefig() d) None of the above</p> | |
| 8. | <p>Which clause is used with aggregate functions? a. GROUP BY b. ORDER BY c. BETWEEN d. IN</p> | 1 |
| 9. | <p>Which of the following Python Statements is used to export data from Pandas Dataframe to a CSV file (Note: pd is an alias for pandas and df as dataframe name)? a) df.export_csv('filename.csv') b) pd.to_csv('filename.csv') c) df.to_csv('filename.csv') d) pd.load_csv('filename.csv')</p> | 1 |
| 10. | <p>While surfing on Internet if your geo location is turned on, than it makes a) Active digital footprint b) Passive digital footprint c) Active e footprint d) Passive e footprint</p> | 1 |
| 11. | <p>If a column fee contains the following data set (75, null, null, 100, 200), what will be the output of the following query. select count(Fee) from emp; a) 5 b) 2 c) 3 d) output cannot be predicted</p> | 1 |
| 12. | <p>Which topology in general uses less wire length compare to other ? a) Star Topology b) Ring Topology c) Bus Topology d) All use same wire length</p> | 1 |
| 13. | <p>To display the last five rows of a Dataframe object df, we write a) df.Tail() b) df.tail() c) df.tail(5) d) Both b and c</p> | 1 |
| 14. | <p>Which of the following is/are examples of cybercrime? a) Extracting money using a person's net banking details. b) Posting/viewing child pornographic material. c) Making online payment using someone else's credit card</p> | 1 |

| | without consent. d) All of the above | | | | | | | | | | | | | | | | | |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------|-------------|-------|-------|----------------------------------------|-------|---------|-----------------------------------------------------|-------|-------|---------------------------------------|----|--------|----------------------------------|------|---|
| 15. | Which of the following statement is wrong? a) Can't change the index of the Series. b) We can easily convert the list,tuple and dictionary into a series. c) A series represent a single column in memory d) We can create empty series. | 1 | | | | | | | | | | | | | | | | |
| 16. | Match the following SQL functions/clauses with their descriptions: <table border="1" style="margin: 10px auto;"> <thead> <tr> <th colspan="2">SQL Function</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>P.</td> <td>SUM()</td> <td>1.To extract a substring from a string</td> </tr> <tr> <td>Q.</td> <td>POWER()</td> <td>2. Returns the total value of all rows in a column.</td> </tr> <tr> <td>R.</td> <td>MID()</td> <td>3. Returns the current date and time.</td> </tr> <tr> <td>S.</td> <td>NOW()</td> <td>4. Returns power of given values</td> </tr> </tbody> </table> <p>A. P-2, Q-4, R-3, S-1 B. P-2, Q-4, R-1, S-3 C. P-4, Q-3, R-2, S-1 D. P-4, Q-2, R-1, S-3</p> | SQL Function | | Description | P. | SUM() | 1.To extract a substring from a string | Q. | POWER() | 2. Returns the total value of all rows in a column. | R. | MID() | 3. Returns the current date and time. | S. | NOW() | 4. Returns power of given values | 1 | |
| SQL Function | | Description | | | | | | | | | | | | | | | | |
| P. | SUM() | 1.To extract a substring from a string | | | | | | | | | | | | | | | | |
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| S. | NOW() | 4. Returns power of given values | | | | | | | | | | | | | | | | |
| 17. | What will be the output of the given command: df1.loc[:0,'Sal'] Consider the given dataframe <table style="margin: 10px auto;"> <thead> <tr> <th></th> <th>EName</th> <th>Sal</th> <th>Bonus</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Kavita</td> <td>50000</td> <td>3000</td> </tr> <tr> <td>1</td> <td>Sudha</td> <td>60000</td> <td>4000</td> </tr> <tr> <td>2</td> <td>Garima</td> <td>55000</td> <td>5000</td> </tr> </tbody> </table> <p>a) 0 Kavita 50000 3000 b) 50000 c) 3000 d) Both a and b</p> | | EName | Sal | Bonus | 0 | Kavita | 50000 | 3000 | 1 | Sudha | 60000 | 4000 | 2 | Garima | 55000 | 5000 | 1 |
| | EName | Sal | Bonus | | | | | | | | | | | | | | | |
| 0 | Kavita | 50000 | 3000 | | | | | | | | | | | | | | | |
| 1 | Sudha | 60000 | 4000 | | | | | | | | | | | | | | | |
| 2 | Garima | 55000 | 5000 | | | | | | | | | | | | | | | |
| 18. | Which of the following is not a valid chart type ? a) lineplot b) bargraph c) histogram d) statistical | 1 | | | | | | | | | | | | | | | | |

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| 19. | Which type of the following networks spread over small geographical area of up to 1 km? a) LAN b) MAN c) WAN d) None of these | 1 |
| 20. | Assertion (A):- df.loc(False) function can be used to find the values where index value is False. Reason (R):- Boolean indexing is a type of indexing and can be used to retrieve the data. (c) Assertion (A) is True, but Reason (R) is False | 1 |
| 21. | Assertion (A): SUM() is an Aggregate function. Reason (R) : Multiple row functions work upon group of rows and return one result for the complete set of rows. (A) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A) | 1 |
| Q No. | Section-B (7 x 2 = 14 Marks) | |
| 22. | import pandas as pd s=pd.Series([1,3,5,6,7,8],index=[0,1,2,3,4]) print(s) or Any correct code OR The two data structures provided by Pandas library in Python are Series and Dataframe. Python library is used in python for data visualization is matplotlib. | 2 |
| 23. | (i) cookies (ii) any two web browsers like Google chrome, Mozilla Firefox, Microsoft edge etc. | 2 |
| 24. | Select PNAME, AVG(PRICE) From product group by PNAME having AVG(Price)>150; | 2 |
| 25. | Local Area Network (LAN) and a Metropolitan Area Network (MAN) A LAN is a network that connects devices in a small area, like a home or office. LANs can be small or large, but they're usually confined to a single building or campus A MAN is a network that connects multiple LANs over a larger area, like a city or metropolitan area. MANs are typically 10–50 km in size. (Any two correct difference points) OR A network gateway is a device or software that connects networks | 2 |

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| | with different protocols by translating data between them. | |
| 26. | <p>A "WHERE clause" in a SQL query is used to filter data within a table, allowing you to retrieve only the rows that meet specific conditions.</p> <p>eg: <i>select * from students where marks>75;</i> This query will show only those students records who scored above 75 marks.</p> | 2 |
| 27. | <p>feasible methods of e-waste management are reduce, reuse and recycle.</p> <ul style="list-style-type: none"> • Reduce: We should try to reduce the generation of e-waste by purchasing the electronic or electrical devices only according to our need. • Reuse: It is the process of re-using the electronic or electric waste after slight modification. • Recycle: Recycling is the process of conversion of electronic devices into something that can be used again and again in some or the other manner. | 2 |
| 28. | <p>a) print(df.shape) b) print(df.iloc[:: -2, :: -1])</p> | 2 |