BCM SCHOOL BASANGT AVENUE

CLASS XII

SUBJECT -IP

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| **Q.No** | **SECTION-A** | **Marks** |
| 1. | State whether the following statement is True or False.  E-waste increasing day by day is a blessings for environment. | 1 |
| 2. | The purpose of distinct clause in a SQL statement is to:   1. show all the rows in a column of table 2. show all duplicate values in a column 3. Remove all duplicate values in a column 4. sort all the results based on a column | 1 |
| 3. | NIC stands for   1. Network Information Centre 2. Network Integration Card 3. Network Interface Card 4. Network Initiate Card | 1 |
| 4. | SQL function to find the lowest among group of values   1. minimum( ) 2. min( ) 3. low( ) 4. lowest( ) | 1 |

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| 5. | Which of the following is the correct way to import the Pandas library in Program?   1. import pd as pandas 2. import pandas 3. from pandas import pd 4. from pd import pandas | 1 |
| 6. | Which of the following is correct output of code given below – S1 = pd.Series(range(5))  a) 0 1 b) 0 5 c) 0 1 d) None of the above  1 2 1 2  2 3 2 3  3 4 3 4  4 5 | 1 |
| 7. | Which of the following function is used to save the figure/chart?   1. save() 2. savefigure() 3. savefig() 4. None of the above | 1 |
| 8. | Which clause is used with aggregate functions?   1. GROUP BY 2. ORDER BY 3. BETWEEN 4. IN | 1 |
| 9. | 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)?   1. df.export\_csv(‘filename.csv’) 2. pd.to\_csv(‘filename.csv’) 3. df.to\_csv(‘filename.csv’) 4. pd.load\_csv(‘filename.csv’) | 1 |
| 10. | While surfing on Internet if your geo location is turned on, than it makes –   1. Active digital footprint 2. Passive digital footprint 3. Active e footprint 4. Passive e footprint | 1 |
| 11. | If a column Fee contains the following data set (75, null, null, 100, 200), what will be theoutput of the following query. select count(Fee) from emp;   1. 5 2. 2 3. 3 4. output cannot be predicted | 1 |
| 12. | Which topology in general uses less wire length compare to | 1 |

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|  | other network topologies?   1. Star Topology 2. Ring Topology 3. Bus Toplogy 4. All use same wire length |  |
| 13. | To display the last five rows of a Dataframe object df, we write   1. df.Tail() 2. df.tail() 3. df.tail(5) 4. Both b and c | 1 |
| 14. | Which of the following is/are examples of cybercrime?   1. Extracting money using a person's net banking details. 2. Posting/viewing child pornographic material. 3. Making online payment using someone else's credit card without consent. 4. All of the above | 1 |
| 15. | Which of the following statement is wrong?   1. Can’t change the index of the Series. 2. We can easily convert the list,tuple and dictionary into a series. 3. A series represent a single column in memory 4. We can create empty series. | 1 |
| 16. | Match the following SQL functions/clauses with their descriptions:   1. P-2, Q-4, R-3, S-1 2. P-2, Q-4, R-1, S-3 3. P-4, Q-3, R-2, S-1 4. P-4, Q-2, R-1, S-3  |  |  |  | | --- | --- | --- | | 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 |
| 17. | What will be the output of the given command: df1.loc[:0,’Sal’]  Consider the given dataframe | 1 |

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|  | EName Sal Bonus  0 Kavita 50000 3000  1 Sudha 60000 4000  2 Garima 55000 5000   1. 0 Kavita 50000 3000 2. 50000 3. 3000 4. Both a and b |  |
| 18. | Which of the following is not a valid chart type ?   1. lineplot 2. bargraph 3. histogram 4. statistical | 1 |
| 19. | Which type of the following networks spread over small geographical area of up to 1 km?   1. LAN 2. MAN 3. WAN 4. None of these | 1 |
|  | **Q-20 and Q-21 are Assertion (A) and Reason (R) Type**  **questions. Choose the correct option as:** |  |
|  | 1. **Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A)** 2. **Both Assertion (A) and Reason (R) are true, but Reason**   **(R) is not the correct explanation of Assertion (A)**   1. **Assertion (A) is True, but Reason (R) is False** 2. **Assertion (A) is False, but Reason (R) is True** |  |
| 20. | **Assertion (A):-** df.loc(False) function can be used to find the values where index valueis False.  **Reason (R):-** Boolean indexing is a type of indexing and can be  used to retrieve the data. | 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. | 1 |

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| **Q No.** | **Section-B (7 x 2 = 14 Marks)** |  |
| **22.** | 1. Write a program to create a Series “s” as shown below.   0 1  1 3  2 5  3 67  4 8  dtype: int64  **OR**   1. Write the name of any two data structures provided by Pandas library in Python. Which python library is used in python for data   visualization. | 2 |
| **23.** | 1. I:    * am a small text file    * created on user’s computer    * contains small piece of data-Like a username, password and user’s browsing history as well as preferences    * may help to improve user’s web browsing experience. Who am I? 2. Name any two popular web browser’s. | 2 |
| **24.** | Manisha is a Junior Data Analyst in an ecommerce company. She has been assigned a task to find the average price of product for categories available on the website of the company but display only those where the average in the category is more than 150. She wrote the following SQL query but she is getting error in it.  Select PNAME, AVG(PRICE)  From product  Where AVG(Price)>150;  Help her in identifying the reason for the error and write the correct query by suggesting the possible correction. | 2 |
| **25.** | 1. What is the difference between LAN and MAN?   **OR**   1. What is a Gateway? Explain. | 2 |
| **26.** | What is the purpose of WHERE clause? Explain with the help of suitable example. | 2 |
| **27.** | Explain any two possible methods of e-waste management. | 2 |
| **28.** | Carefully observe the following code:  *import pandas as pd*  *data = {'col1' : pd.Series([1, 2, 3], index=['a', 'b', 'c']),*  *'col2' : pd.Series([0, 78, -25, 13], index=['a', 'b', 'c', 'd'])}* | 2 |