

Computer Science

Question:

Which of the following function(s) is/are SQL aggregate functions ?

- (A) Trim()
- (B) Max()
- (C) Count()
- (D) Lower()
- (E) Avg()

Choose the **correct** answer from the options given below :

- (1) (B) only
- (2) (A), (B) and (C) only
- (3) (B), (C) and (E) only
- (4) (B), (C), (D) and (E) only

A 1**B** 2**C** 3**D** 4**Question:**

Consider the given table and answer the question :

Mother table

| MOID | Mname | Mphone | Maddress | Mqualification |
|------|---------------|------------|--------------------|----------------|
| A01 | Lata Sharma | 9999887218 | G35, Rohini | B.Ed. |
| A02 | Lovely Singh | 9898989899 | S-5 Ashok Village | BA |
| A03 | Raisa Soni | 9712345657 | 95, Rajoyri Garden | M.Ed |
| B01 | Anamika Jha | 9812345762 | F5, Preet Vihar | BA |
| B02 | Lavanya Mehra | 6712457591 | G9, Okhla | MA |

What will be the effect of following command ?

Select Mname as "Name", Maddress as "residence" from Mother;

- (1) It will change the field headings temporarily Mname to Name and Maddress to residence.
- (2) It will give error message
- (3) It will change all the Names, addresses to Name and residence
- (4) It will change the field names Mname to name and Maddress to residence

A 1

- B** 2
C 3
D 4

Question:

Consider the given table and answer the question :

Mother table

| MOID | Mname | Mphone | Maddress | Mqualification |
|------|---------------|------------|--------------------|----------------|
| A01 | Lata Sharma | 9999887218 | G35, Rohini | B.Ed. |
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| B01 | Anamika Jha | 9812345762 | F5, Preet Vihar | BA |
| B02 | Lavanya Mehra | 6712457591 | G9, Okhla | MA |

To retrieve the given column from Mother table :

| |
|---------------|
| Mname |
| Lata Sharma |
| Lovely Singh |
| Lavanya Mehra |

The correct command is :

- (1) Select Mname from Mother Where Mname is 'Lata Sharma', 'Lovely Singh', 'Lavanya Mehra';
- (2) Select Mname from Mother where Mname like '%L';
- (3) Select Mname from Mother where Mname like 'L%';
- (4) Select Mname from Mother starting with L;

- A** 1
B 2
C 3
D 4

Question:

Consider the given table and answer the question :

Mother table

| MOID | Mname | Mphone | Maddress | Mqualification |
|------|---------------|------------|--------------------|----------------|
| A01 | Lata Sharma | 9999887218 | G35, Rohini | B.Ed. |
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| A03 | Raisa Soni | 9712345657 | 95, Rajoyri Garden | M.Ed |
| B01 | Anamika Jha | 9812345762 | F5, Preet Vihar | BA |
| B02 | Lavanya Mehra | 6712457591 | G9, Okhla | MA |

Which of the following query will change the name - 'Lata Sharma' to 'Elina' ?

- (1) Update Mother where Mname = 'Lata Sharma';
- (2) Update Mother set Mname = 'Elina' where Mname = 'Lata Sharma';
- (3) Alter table Mother set Mname = 'Elina' where Mname = 'Lata Sharma';
- (4) Alter table Mname = 'Elina' where Mname = 'Lata Sharma';

A 1

B 2

C 3

D 4

Question:

Consider the given table and answer the question :

Mother table

| MOID | Mname | Mphone | Maddress | Mqualification |
|------|---------------|------------|--------------------|----------------|
| A01 | Lata Sharma | 9999887218 | G35, Rohini | B.Ed. |
| A02 | Lovely Singh | 9898989899 | S-5 Ashok Village | BA |
| A03 | Raisa Soni | 9712345657 | 95, Rajoyri Garden | M.Ed |
| B01 | Anamika Jha | 9812345762 | F5, Preet Vihar | BA |
| B02 | Lavanya Mehra | 6712457591 | G9, Okhla | MA |

What will be result of the following query ?

Select distinct Mqualification from Mother;

- (1) It will display the mqualification column after filtering it
- (2) It will display each mqualification number of times
- (3) It will display each mqualification once after removing the duplicates
- (4) It will give error message

- A 1
- B 2
- C 3
- D 4

Question:

Identify an application software which is required by a client to request any resource and to receive response of his request out of the following :

- (1) Google
- (2) Web Browser
- (3) Website
- (4) Web Page

- A 1
- B 2
- C 3
- D 4

Question:

What is the output of the code given below ?

```
List = [1, 2, 3]
```

```
List[3]
```

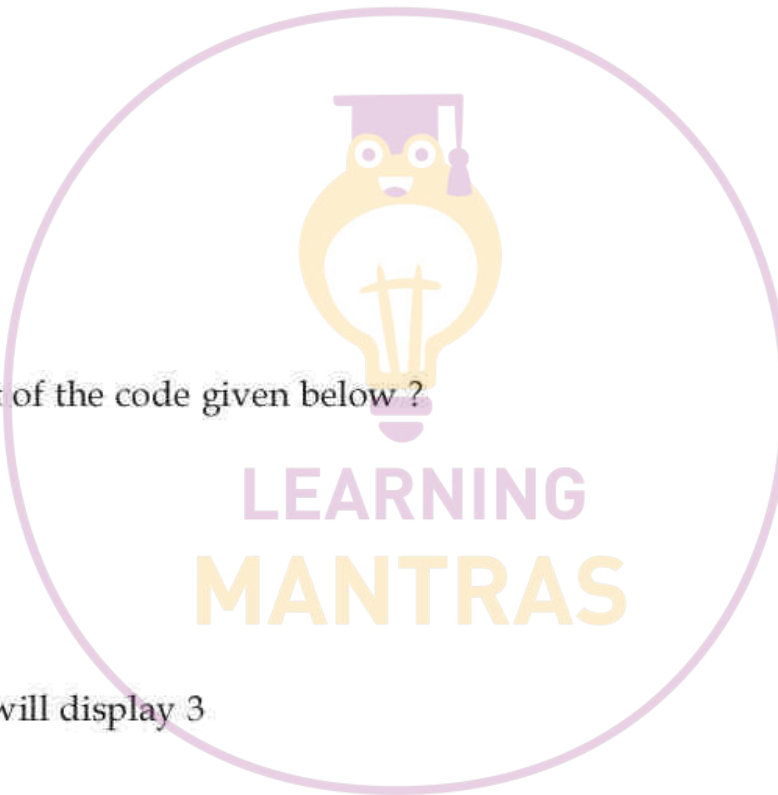
- (1) NameError
- (2) ValueError
- (3) IndexError
- (4) No Error, it will display 3

- A 1
- B 2
- C 3
- D 4

Question:

Which of the following offer secure communication ?

- (1) Radio waves
- (2) Infrared
- (3) Laser
- (4) Microwaves



- A** 1
- B** 2
- C** 3
- D** 4

Question:

Which of the following access mode is used to open binary file in read mode only ?

- (1) wb
- (2) a
- (3) rb
- (4) r

- A** 1
- B** 2
- C** 3
- D** 4

Question:

Choose the correct statements about Database :

- (A) Database schema is the design of database
- (B) Database is the skeleton of the database that represents the structure
- (C) Meta data is data about constraint
- (D) We may not retrieve the data through queries

Choose the **correct** answer from the options given below :

- (1) (A) and (B) only
- (2) (B) and (C) only
- (3) (C) and (D) only
- (4) (D) and (A) only

- A** 1
- B** 2
- C** 3
- D** 4

Question:

Match List - I with List - II.

| List - I | List - II |
|-------------------|--|
| Terms | Definitions |
| (A) Bus Topology | (I) With Central Networking device like hub or switch. |
| (B) Star Topology | (II) Each Node is connected to two other devices, one each and either side |
| (C) Ring Topology | (III) There are multiple branches and also known as hybrid topology |
| (D) Tree Topology | (IV) A single backbone shared among the nodes. |

Choose the **correct** answer from the options given below :

- (1) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (2) (A) - (IV), (B) - (III), (C) - (I), (D) - (II)
- (3) (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
- (4) (A) - (I), (B) - (II), (C) - (IV), (D) - (III)

A 1

B 2

C 3

D 4

Question:

In context of network type Local Area Network (LAN), which of the following statement(s) are correct :

- (A) It covers a small area, within a building or a campus
- (B) Less congestion
- (C) Less fault tolerance
- (D) It operates on the principle of broadcasting
- (E) Speed of LAN is slower than MAN and WAN

Choose the **correct** answer from the options given below :

- (1) (A), (B) and (C) only
- (2) (C), (D) and (E) only
- (3) (B), (C) and (D) only
- (4) (A), (B) and (D) only

A 1

B 2

C 3

D 4

Question:

Identify the type of error which is raised when variable name is not defined ?

- (1) TypeError
- (2) NameError
- (3) ValueError
- (4) SyntaxError

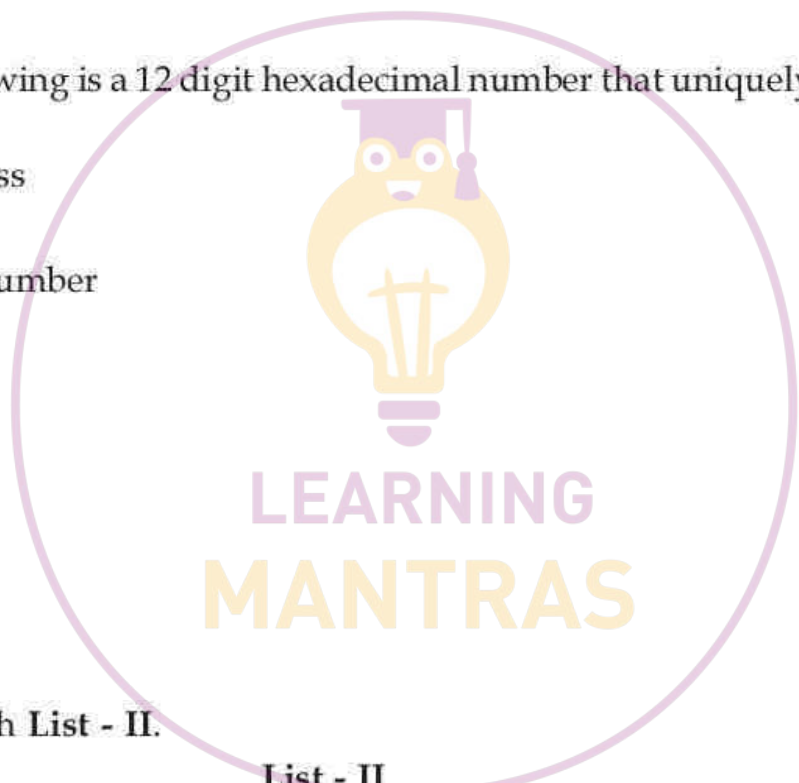
- A** 1
- B** 2
- C** 3
- D** 4

Question:

Which of the following is a 12 digit hexadecimal number that uniquely identifies a machine on a network ?

- (1) MAC address
- (2) IP address
- (3) Processor Number
- (4) ISP Code

- A** 1
- B** 2
- C** 3
- D** 4



Question:

Match List - I with List - II.

List - I

- (A) Primary key
- (B) Degree
- (C) Unique
- (D) Cardinality

List - II

- (I) All the values in a column distinct
- (II) Number of tuples in a table
- (III) The column which can Uniquely identify each tuple in a table
- (IV) Number of Attributes in a table

Choose the **correct** answer from the options given below :

- (1) (A) - (I), (B) - (IV), (C) - (II), (D) - (III)
- (2) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- (3) (A) - (III), (B) - (I), (C) - (II), (D) - (IV)
- (4) (A) - (III), (B) - (IV), (C) - (II), (D) - (I)

- A** 1
- B** 2
- C** 3
- D** 4

Informatics Practices

Tamisha has written SQL queries and used several functions that take numeric values as input and return a numeric value as a result. Identify the category of function of SQL used for the above :

- (1) String
- (2) Math
- (3) Date and Time
- (4) Integer

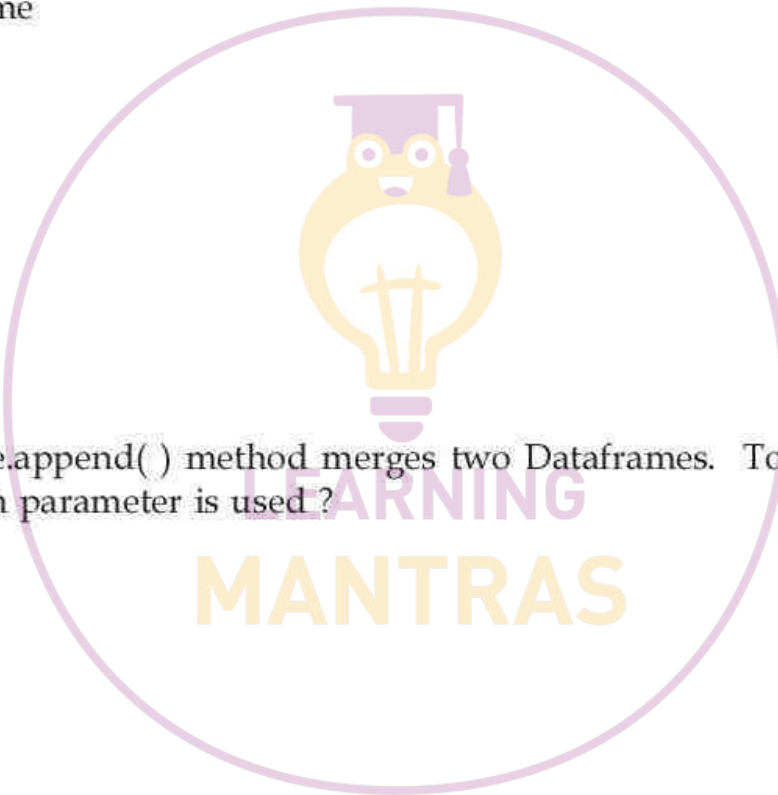
- A** 1
- B** 2
- C** 3
- D** 4

Question:

Pandas DataFrame.append() method merges two Dataframes. To get column labels in sorted order which parameter is used?

- (1) Arrange
- (2) sort
- (3) Order by
- (4) sorted

- A** 1
- B** 2
- C** 3
- D** 4



Question:

Abhshek wants to set up a network and use a communication protocol that establishes a dedicated and direct connection between two communicating devices. The protocol should define how two devices will authenticate each other and establish a direct link between them. The communicating devices should have duplex modes for using the protocol. Identify the protocol from the following :

- (1) HTTP
- (2) PPP
- (3) TCP/IP
- (4) SMTP

A 1

B 2

C 3

D 4

Question:

Ethernet cards can support data transfer between _____.

- (1) 100 Kbps and 1000 Kbps
- (2) 10 Mbps and 1000 Mbps
- (3) 10 Kbps and 10 Mbps
- (4) 1 Mbps and 1 Tbps

A 1

B 2

C 3

D 4

Question:

Scatter plots are sometimes called correlation plots because _____.

- (1) They are used to show comparison between variables of no relation between them in different colours.
- (2) It is a two dimensional data visualization
- (3) They use dots to represent values
- (4) They show how two variables are correlated

A 1

B 2

C 3

D 4

Question:

Match the following list for Line graph markers :

| List - I | List - II |
|--------------|----------------|
| Marker Value | Marker type |
| (A) "3" | (I) Diamond |
| (B) "1" | (II) Octagon |
| (C) "8" | (III) tri_down |
| (D) "D" | (IV) tri_left |

Choose the **correct** answer from the options given below :

- (1) (A) - (IV), (B) - (II), (C) - (I), (D) - (III)
- (2) (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
- (3) (A) - (I), (B) - (III), (C) - (II), (D) - (IV)
- (4) (A) - (II), (B) - (IV), (C) - (III), (D) - (I)

A 1**B** 2**C** 3**D** 4**Question:**

Mrinal has missed some exams in UT4. The teacher wants to see the total number of tests missed in all by the students. If dataset 'df' has names of students at index and subject names as columns, then select the correct option that will count the students, who missed the test :

- (1) `print(df.isnull().sum())`
- (2) `print(df.isnull().sum().sum())`
- (3) `print(df.isnull(sum(sum())))`
- (4) `print(df.sum(isnull()))`

A 1**B** 2**C** 3**D** 4

Question:

Identify the correct statement to add a new row to a DataFrame DFone. The content of DFone are given below :

| | L1 | L2 | L3 |
|-------|----|----|----|
| One | 21 | 22 | 23 |
| Two | 31 | 48 | 21 |
| Three | 46 | 21 | 23 |

Select correct option to add a row with a label 'Four' and values 82, 84, 86

- (1) DFone.addrow['Four'] = [82, 84, 86]
- (2) DFone.loc('Four') = (82, 84, 86)
- (3) DFone.loc['Four'] = [82, 84, 86]
- (4) DFone['Four'] = (82,84,86)

A 1**B** 2**C** 3**D** 4**Question:**

In Pandas series we can define our own labelled index. Identify the incorrect statement(s) :

- (A) Series require more memory
- (B) There can be NaN values in series
- (C) Labelled indexes can have letters or numbers
- (D) Elements in series can be indexed in descending order
- (E) Indexing starts with zero and is fixed

Choose the **correct** answer from the options given below :

- (1) (A), (C) and (D) only
- (2) (E) only
- (3) (B), and (E) only
- (4) (D) and (E) only

A 1**B** 2**C** 3**D** 4

Question:

Identify correct option to import data from a CSV file named 'Myfile.csv' to a dataframe DF1. The values are separated by comma(,) (assume pd as alias name for pandas) :

- (1) `DF1 = pd.Read_csv('Myfile.csv', sep = (,))`
- (2) `DF1 = pd.readcsv('Myfile.csv', sep = ',')`
- (3) `DF1 = pd.read_csv('Myfile.csv', sep = ',')`
- (4) `DF1 = pd.read_csv('Myfile.csv', sep (', '))`

A 1**B** 2**C** 3**D** 4**Question:**

Identify the correct option to create series of names of weekdays and assign day number starting from 1 as index values where pd is the pandas object :

- (1) `wd = pd.Series(['Mon'], ['Tue'], ['Wed'], ['Thu'], ['Fri'], ['Sat'], index = [1, 2, 3, 4, 5, 6, 7])`
- (2) `wd = pd.Series(['Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat', 'Sun'], index = (0))`
- (3) `wd = pd.Series(['Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat', 'Sun'], index = [1, 2, 3, 4, 5, 6, 7])`
- (4) `wd = pd.Series(['Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat', 'Sun'], index(1, 2, 3, 4, 5, 6, 7))`

A 1**B** 2**C** 3**D** 4**Question:**

Quartiles are the measures which divide data into four equal parts, and each part contains equal number of observations. Calculating quartiles requires calculation of _____.

- (1) Mean
- (2) Median
- (3) Mode
- (4) Range

A 1**B** 2**C** 3**D** 4

Question:

What is meant by attenuation ?

- (1) Cable disturbance
- (2) Cable shortage
- (3) Loss of signal strength
- (4) Unwanted signals with transmission

A 1

B 2

C 3

D 4

Question:

Following are the sequence of steps of host a website in a jumbled order. Arrange them in correct order :

- (A) create logins with appropriate rights and note down IP address
- (B) upload the files in properly organised folder on the allotted space
- (C) Get domain name mapped to the IP address of web server
- (D) Select web hosting service provider according to the requirement
- (E) Identify the domain name and get it registered

Choose the **correct** answer from the options given below :

- (1) (D), (E), (B), (A), (C)
- (2) (D), (E), (A), (C), (B)
- (3) (D), (E), (B), (C), (A)
- (4) (D), (E), (A), (B), (C)

A 1

B 2

C 3

D 4

Question:

Arrange steps in proper sequence to plot a chart in python using matplotlib on data from a csv file :

- (A) labelling the axis of chart
- (B) importing pandas and matplotlib.pyplot Library module
- (C) Displaying graph using show() method
- (D) importing data from a csv file
- (E) plotting the graph using plot()

Choose the **correct** answer from the options given below :

- (1) (B), (C), (E), (D), (A)
- (2) (B), (E), (D), (A), (C)
- (3) (B), (D), (A), (E), (C)
- (4) (B), (D), (E), (A), (C)

- A** 1
- B** 2
- C** 3
- D** 4

Question:

With reference to given DataFrame named "df", what will the output of the given statement ?

| | hno | Hname | Nrooms |
|---|-----|---------|--------|
| 0 | 1 | Taj | 45 |
| 1 | 2 | Maurya | 56 |
| 2 | 3 | Hilton | 78 |
| 3 | 4 | Amatra | 23 |
| 4 | 5 | Picasso | 67 |

`print(df.iloc[:2])`

- (1)

| | hno | Hname | Nrooms |
|---|-----|-------|--------|
| 0 | 1 | Taj | 45 |
- (2)

| | hno | Hname |
|---|-----|--------|
| 0 | 1 | Taj |
| 1 | 2 | Maurya |
- (3)

| | hno | Hname | Nrooms |
|---|-----|--------|--------|
| 0 | 1 | Taj | 45 |
| 1 | 2 | Maurya | 56 |
| 2 | 3 | Hilton | 78 |
- (4)

| | hno | Hname | Nrooms |
|---|-----|-------|--------|
| 0 | 1 | Taj | 45 |
| 1 | 2 | M | 56 |



- A** 1
- B** 2
- C** 3
- D** 4

Question:

Consider the average height and weight of persons aged 8 to 16 stored in the following two lists :

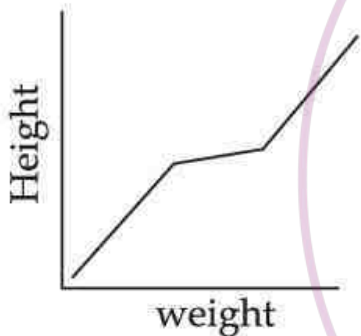
height = [121.9, 124.5, 129.5, 134.6]

weight = [19.7, 21.3, 30.5, 25.9]

To plot a line chart, Ankush write the statement :

```
plt.plot(_____, _____, _____ = 'green')  
           Missing      Missing      Missing  
           Part I      Part 2      Part 3
```

Identify the correct blanks :



- (1) height, weight, color
- (2) weight, height, color
- (3) plt.height, plt.weight, color
- (4) plt.height, plt.weight, plt.color

- A** 1
- B** 2
- C** 3
- D** 4

Question:

Given the following dataframe (df), choose the correct option to add a column for 'phy' subject with values 30, 40, 50, 60 respectively :

| | Name | IP |
|---|----------|----|
| 0 | Tarma | 40 |
| 1 | Ritu | 35 |
| 2 | Vaishali | 70 |
| 3 | Sarthak | 80 |

- (1) `df = [30, 40, 50, 60]`
- (2) `df['phy'] = [30, 40, 50, 60]`
- (3) `df['phy'] = [30, 40, 50, 60]`
- (4) `df = {'phy' : [30, 40, 50, 60]}`

- A** 1
B 2
C 3
D 4

Question:

What will be the output of the following code :

```
import pandas as pd
import numpy as np
X = [30, 5, 20, 60, 25, 34, 27, 30, 42, 60]
Y = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j']
Z = pd.Series(Y, X)
print(Z.tail(6))
```

- (1) First 6 Rows will be printed
- (2) Last 6 Rows will be printed
- (3) All the Rows will be printed
- (4) Value 6 will be printed

- A** 1
B 2
C 3
D 4

Question:

Which of the following library is used for putting graphs and visualization in python ?

- (1) Maths
- (2) Matplotlib
- (3) Numpy
- (4) Series

A 1**B** 2**C** 3**D** 4**Question:**

Consider the 'Sale' Table and 'Model' Table from the Bike Showroom and answer the questions.

Table Sale

| Invoice No | BikeID | CustID | Saledate | Payment Mode | Emp_ID | Saleprice | Commission |
|------------|--------|--------|------------|--------------|--------|-----------|------------|
| I1 | B01 | C1 | 2020-01-24 | credit card | E2 | 150000 | 18000 |
| I2 | B02 | C2 | 2020-01-18 | cheque | E3 | 250000 | 25000 |
| I3 | B03 | C3 | 2021-11-14 | online | E10 | 63000 | 9000 |
| I4 | B04 | C2 | 2020-10-18 | Bank Finance | E8 | 83000 | 11000 |
| I5 | B05 | C3 | 2022-01-19 | credit card | E7 | 98000 | 14000 |
| I6 | B03 | C6 | 2021-04-20 | Bank Finance | E6 | 69000 | 10000 |

Table : Model

| BikeID | Manufacturer | Quantity |
|--------|--------------|----------|
| B01 | Yamaha | 100 |
| B03 | Kawasaki | 55 |
| B04 | Bajaj | 80 |
| B05 | Honda | 65 |

Choose the correct SQL query to display the sum of commission earned by Emp_ID E2, E8 and E6

- (1) Select * from Sale where sum(Commission) in E2, E8, E6;
- (2) Select sum(Commission) from Sale where Emp_ID in ('E2', 'E8', 'E6');
- (3) Select sum(Commission) from Sale where Emp_ID between ['E1', 'E8'];
- (4) Select * from Sale where sum(Commission) = Emp_ID('E2', 'E8', 'E6');



- A** 1
B 2
C 3
D 4

Question:

Consider the 'Sale' Table and 'Model' Table from the Bike Showroom and answer the questions.

Table Sale

| Invoice No | BikeID | CustID | Saledate | Payment Mode | Emp_ID | Saleprice | Commission |
|------------|--------|--------|------------|--------------|--------|-----------|------------|
| I1 | B01 | C1 | 2020-01-24 | credit card | E2 | 150000 | 18000 |
| I2 | B02 | C2 | 2020-01-18 | cheque | E3 | 250000 | 25000 |
| I3 | B03 | C3 | 2021-11-14 | online | E10 | 63000 | 9000 |
| I4 | B04 | C2 | 2020-10-18 | Bank Finance | E8 | 83000 | 11000 |
| I5 | B05 | C3 | 2022-01-19 | credit card | E7 | 98000 | 14000 |
| I6 | B03 | C6 | 2021-04-20 | Bank Finance | E6 | 69000 | 10000 |

Table : Model

| BikeID | Manufacturer | Quantity |
|--------|--------------|----------|
| B01 | Yamaha | 100 |
| B03 | Kawasaki | 55 |
| B04 | Bajaj | 80 |
| B05 | Honda | 65 |

Choose the correct query to display the customer ID and number of bikes purchased if the customer has purchased more than 1 bikes from Sale Table :

- (1) Select CustID, count(*) "No of bike" From Sale Group by CustID;
- (2) Select * from Sale having count(*) > 1;
- (3) Select CustID, count(*) from Sale Group By CustID having count(*) > 1;
- (4) Select CustID, count(*) from Sale Group By InvoiceNo;

- A** 1
B 2
C 3
D 4

Question:

Consider the 'Sale' Table and 'Model' Table from the Bike Showroom and answer the questions.

Table Sale

| Invoice No | BikeID | CustID | Saledate | Payment Mode | Emp_ID | Saleprice | Commission |
|------------|--------|--------|------------|--------------|--------|-----------|------------|
| I1 | B01 | C1 | 2020-01-24 | credit card | E2 | 150000 | 18000 |
| I2 | B02 | C2 | 2020-01-18 | cheque | E3 | 250000 | 25000 |
| I3 | B03 | C3 | 2021-11-14 | online | E10 | 63000 | 9000 |
| I4 | B04 | C2 | 2020-10-18 | Bank Finance | E8 | 83000 | 11000 |
| I5 | B05 | C3 | 2022-01-19 | credit card | E7 | 98000 | 14000 |
| I6 | B03 | C6 | 2021-04-20 | Bank Finance | E6 | 69000 | 10000 |

Table : Model

| BikeID | Manufacturer | Quantity |
|--------|--------------|----------|
| B01 | Yamaha | 100 |
| B03 | Kawasaki | 55 |
| B04 | Bajaj | 80 |
| B05 | Honda | 65 |

Choose the correct query to display number of bikes purchased by each customer from Sale Table :

- (1) Select * from Sale;
- (2) Select CustID, Count(*) As "No. of bikes " from Sale Group by CustID;
- (3) Select CustID, count "No of bikes" from Sale;
- (4) Select BikeID from Sale;

- A** 1
B 2
C 3
D 4

Question:

Consider the 'Sale' Table and 'Model' Table from the Bike Showroom and answer the questions.

Table Sale

| Invoice No | BikeID | CustID | Saledate | Payment Mode | Emp_ID | Saleprice | Commission |
|------------|--------|--------|------------|--------------|--------|-----------|------------|
| I1 | B01 | C1 | 2020-01-24 | credit card | E2 | 150000 | 18000 |
| I2 | B02 | C2 | 2020-01-18 | cheque | E3 | 250000 | 25000 |
| I3 | B03 | C3 | 2021-11-14 | online | E10 | 63000 | 9000 |
| I4 | B04 | C2 | 2020-10-18 | Bank Finance | E8 | 83000 | 11000 |
| I5 | B05 | C3 | 2022-01-19 | credit card | E7 | 98000 | 14000 |
| I6 | B03 | C6 | 2021-04-20 | Bank Finance | E6 | 69000 | 10000 |

Table : Model

| BikeID | Manufacturer | Quantity |
|--------|--------------|----------|
| B01 | Yamaha | 100 |
| B03 | Kawasaki | 55 |
| B04 | Bajaj | 80 |
| B05 | Honda | 65 |

Choose the correct SQL query to display the Saleprice of only those Bikes which are manufactured by Yamaha ?

- (1) Select Saleprice, Manufacturer from Sale S, Model M where M.Manufacturer = "Yamaha";
- (2) Select Saleprice, Manufacturer from Sale, Model where Model.Manufacturer = "Yamaha";
- (3) Select Saleprice, Manufacturer from Sale, Model where Model.Manufacturer = "Yamaha" Group by Manufacturer;
- (4) Select Saleprice, Manufacturer from Sale S, Model M where M.Manufacturer = "Yamaha" and S.BikeID = M.BikeID;

- A** 1
B 2
C 3
D 4

Question:

Consider the 'Sale' Table and 'Model' Table from the Bike Showroom and answer the questions.

Table Sale

| Invoice No | BikeID | CustID | Saledate | Payment Mode | Emp_ID | Saleprice | Commission |
|------------|--------|--------|------------|--------------|--------|-----------|------------|
| I1 | B01 | C1 | 2020-01-24 | credit card | E2 | 150000 | 18000 |
| I2 | B02 | C2 | 2020-01-18 | cheque | E3 | 250000 | 25000 |
| I3 | B03 | C3 | 2021-11-14 | online | E10 | 63000 | 9000 |
| I4 | B04 | C2 | 2020-10-18 | Bank Finance | E8 | 83000 | 11000 |
| I5 | B05 | C3 | 2022-01-19 | credit card | E7 | 98000 | 14000 |
| I6 | B03 | C6 | 2021-04-20 | Bank Finance | E6 | 69000 | 10000 |

Table : Model

| BikeID | Manufacturer | Quantity |
|--------|--------------|----------|
| B01 | Yamaha | 100 |
| B03 | Kawasaki | 55 |
| B04 | Bajaj | 80 |
| B05 | Honda | 65 |

With reference to the tables MODEL and SALE from the database BIKE show room, which operation can be performed on the two tables ?

- (1) Union
- (2) Intersection
- (3) Cartesian Product
- (4) Difference

- A** 1
B 2
C 3
D 4

Question:

Read the following passage and answer the following question.

Kamakshi prepared a project on “wellness” and by mistake she left her project file at her friend’s residence. Her friend Aditi returned her file but before returning she copied some content from Kamakshi’s file. Aditi also copied some data from internet and pasted it in her project report. While surfing over the internet Aditi shared some of her personal details on the web and later she was surprised to see that some content has been posted on the net from her social account. She just tried to update her hardware and removed all obsolete computer hardware. Now, she is having lot of e-waste to manage.

Aditi submitted project and presented work of Kamakshi as her own work. This act of Aditi is an example of :

- (1) Copyright Infringement
- (2) Hacking
- (3) Plagiarism
- (4) Cracking

A 1

B 2

C 3

D 4

Question:

Read the following passage and answer the following question.

Kamakshi prepared a project on “wellness” and by mistake she left her project file at her friend’s residence. Her friend Aditi returned her file but before returning she copied some content from Kamakshi’s file. Aditi also copied some data from internet and pasted it in her project report. While surfing over the internet Aditi shared some of her personal details on the web and later she was surprised to see that some content has been posted on the net from her social account. She just tried to update her hardware and removed all obsolete computer hardware. Now, she is having lot of e-waste to manage.

Aditi’s social account shows some posts made by Aditi, though Aditi has not actually posted them. This act of posting content by someone else on your name is an example of :

- (1) Ransomware
- (2) Copyright Infringement
- (3) Patent Violation
- (4) Identity theft

A 1

B 2

C 3

D 4



Question:

Read the following passage and answer the following question.

Kamakshi prepared a project on “wellness” and by mistake she left her project file at her friend’s residence. Her friend Aditi returned her file but before returning she copied some content from Kamakshi’s file. Aditi also copied some data from internet and pasted it in her project report. While surfing over the internet Aditi shared some of her personal details on the web and later she was surprised to see that some content has been posted on the net from her social account. She just tried to update her hardware and removed all obsolete computer hardware. Now, she is having lot of e-waste to manage.

The act of Aditi of copying data from internet without obtaining permission from the owner [or without paying for it, if it is being sold] is an example of :

- (1) Plagiarism
- (2) Trademark Infringement
- (3) Copyright Infringement
- (4) Hacking

A 1

B 2

C 3

D 4

Question:

Read the following passage and answer the following question.

Kamakshi prepared a project on “wellness” and by mistake she left her project file at her friend’s residence. Her friend Aditi returned her file but before returning she copied some content from Kamakshi’s file. Aditi also copied some data from internet and pasted it in her project report. While surfing over the internet Aditi shared some of her personal details on the web and later she was surprised to see that some content has been posted on the net from her social account. She just tried to update her hardware and removed all obsolete computer hardware. Now, she is having lot of e-waste to manage.

Aditi should manage the ewaste properly :

- (A) She should not throw the ewaste in water
- (B) She should reuse the electronic waste after making slight modification
- (C) She can sell her ewaste to an NGO which recycles the ewaste into some useful product
- (D) She can burn the ewaste and get rid of it
- (E) She can throw all her ewaste in the domestic garbage bin

Choose the **correct** answer from the options given below :

- (1) (A), (D), and (E) only
- (2) (A), (B) and (C) only
- (3) (A), (B) and (E) only
- (4) (A), (B) and (D) only



- A 1
- B 2
- C 3
- D 4

Question:

Read the following passage and answer the following question.

Kamakshi prepared a project on “wellness” and by mistake she left her project file at her friend’s residence. Her friend Aditi returned her file but before returning she copied some content from Kamakshi’s file. Aditi also copied some data from internet and pasted it in her project report. While surfing over the internet Aditi shared some of her personal details on the web and later she was surprised to see that some content has been posted on the net from her social account. She just tried to update her hardware and removed all absolute computer hardware. Now, she is having lot of e-waste to manage.

The term which has been derived from the literal practice of secretly listening to the conversations of people by standing under roof of a house ?

- (1) Snooping
- (2) Routing
- (3) Buffering
- (4) Evasdropping

- A 1
- B 2
- C 3
- D 4

Question:

Identify the statistical function for analysis of data provided by pandas :

- (1) max()
- (2) rename()
- (3) tail()
- (4) mod()

- A 1
- B 2
- C 3
- D 4

Question:

Match List - I with List - II.

- | List - I | List - II |
|----------------------|--|
| (A) DataFrame.values | (I) returns false if DataFrame is not empty |
| (B) DataFrame.T | (II) Display tuple representing dimensionality of DataFrame |
| (C) DataFrame.shape | (III) Displays Numpy ndarray having all values in Data Frame without axis label. |
| (D) DataFrame.empty | (IV) It returns transpose of the DataFrame |

Choose the **correct** answer from the options given below :

- (1) (A) - (I), (B) - (III), (C) - (II), (D) - (IV)
- (2) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- (3) (A) - (III), (B) - (IV), (C) - (II), (D) - (I)
- (4) (A) - (III), (B) - (II), (C) - (IV), (D) - (I)

A 1

B 2

C 3

D 4

Question:

Given a file "Resultdata.csv" containing the following :

| | Roll_No | Name | Sub1 | Sub2 |
|---|---------|-------|------|------|
| 0 | 101 | Beena | 40 | 29 |
| 1 | 102 | Meena | 75 | 45 |
| 2 | 103 | Reena | 83 | 37 |

Mohit gave the following statement/command, predict the output.

```
>>> marks = pd.read_csv("Resultdata.csv", names = ['RNO', 'NAMES', 'ENG', 'MATHS'])
>>> marks
```

- (1)

| | | | |
|-------|-------|-------|-------|
| RNO | 101 | 102 | 103 |
| NAMES | Beena | Meena | Reena |
| ENG | 40 | 75 | 83 |
| MATHS | 29 | 45 | 37 |
- (2) ValueError
- (3)

| | | | |
|-----|-------|-------|-------|
| RNO | NAMES | ENG | MATHS |
| 0 | 101 | Beena | 40 |
| 1 | 102 | Meena | 75 |
| 2 | 103 | Reena | 83 |
- (4) NameError



- A** 1
- B** 2
- C** 3
- D** 4

Question:

Difference between `loc()` and `iloc()` :

- (1) Both are label indexed based functions.
- (2) Both are integer position-based functions.
- (3) `loc()` is label indexed based function and `iloc()` is integer position based function.
- (4) `iloc()` is integer position based function and `loc()` is index position based function.

- A** 1
- B** 2
- C** 3
- D** 4

Question:

Find valid IP Address out of the following :

- (1) 10 : B5 : 03 : 63 : 2E : FC
- (2) 192. 186. 0.10
- (3) 192. 258. 10.20
- (4) 10 : B5 : 03

- A** 1
- B** 2
- C** 3
- D** 4