

National Testing Agency

Notations :

- Options shown in green color and with ✓ icon are correct.
- Options shown in red color and with ✗ icon are incorrect.

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Computer Science and Informatics Practices

Group Number :	1
Group Id :	4641992
Group Maximum Duration :	0
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Show Attended Group? :	No
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Compulsory

Section Id :	4641992
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	15
Number of Questions to be attempted :	15
Section Marks :	75
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	4641994
Question Shuffling Allowed :	Yes

**Question Number : 1 Question Id : 46419951 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1**

Which of the following are used in python exception handling ?

- (A) try
- (B) except
- (C) finally
- (D) seek

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

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

Question Number : 2 Question Id : 46419952 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Match **List-I** with **List-II** :

List-I

List-II

- | | |
|-------------------|--|
| (A) f.seek(-10,1) | (I) from beginning of file , move 10 bytes forward |
| (B) f.seek(10,1) | (II) from current position moves 10 bytes backward |
| (C) f.seek(10) | (III) from current position moves 10 bytes forward |
| (D) f.seek(-10,2) | (IV) from end of the file, move to the 10 bytes backward |

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

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

Question Number : 3 Question Id : 46419953 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Arrange the following in correct order of exception handling in python :

- (A) Write the code that may raise an exception inside a try block
- (B) Execute some code regardless of whether the exception occurs or not using the finally block
- (C) Handle the specific exception using the except block
- (D) Raise the exception using the raise statement if necessary

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

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

Question Number : 4 Question Id : 46419954 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Consider the following table called 'Student'
Student

RollNo	Name	Mobile	City
1	Arun	91	Delhi
2	Sanjay	92	Mumbai
3	Arun	93	Noida
4	Varun	94	Guwahati
5	Arti	95	Kolkata

How many candidate keys are possible with above table ?

- (1) One
- (2) Two
- (3) Three
- (4) Four

Question Number : 5 Question Id : 46419955 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is **not** a limitation of file system ?

- (1) Data Redundancy
- (2) Data Inconsistency
- (3) Data dependence
- (4) Storing Space

Question Number : 6 Question Id : 46419956 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Match **List-I** with **List-II** :

List-I

- (A) Controlled Data Sharing
- (B) Data Isolation
- (C) Data Dependence
- (D) Data Inconsistency

List-II

- (I) Same data maintained in different places do not match.
- (II) Limited Access given to users.
- (III) There is no mapping between two files.
- (IV) If the structure of a file is changed, all the existing programs accessing that file also need to be changed.

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

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

Question Number : 7 Question Id : 46419957 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is called database instance ?

- (1) Overall design of the database
- (2) The snapshot of the database at any given time.
- (3) Data about the data
- (4) Restriction on the type of data inserted.

Question Number : 8 Question Id : 46419958 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

What is output of the following SQL statement ?

```
SELECT MID('CUET2024',2,5)
```

- (1) UET2
- (2) UET20
- (3) ET202
- (4) CUET2

Question Number : 9 Question Id : 46419959 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

SQL applies conditions on the groups through _____ clause after groups have been formed.

- (1) where
- (2) having
- (3) new
- (4) all

Question Number : 10 Question Id : 46419960 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Consider the following two tables **emp1** and **emp2**

emp1

Id	name
1	amit
2	punita

emp2

Id	name
1	punita
2	anand

What is output of the following query.

```
SELECT name from emp1 minus SELECT name from emp2
```

- (1) punita
- (2) amit
- (3) anand
- (4) amit punita

Question Number : 11 Question Id : 46419961 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the following statement(s) is/ are TRUE regarding computer network ?

- (A) Interspace is a software that allows multiple users in a client-server environment to communicate with each other by sending and receiving data of various types.
- (B) IP address is a unique permanent value associated with a network adapter called a NIC.
- (C) A computer network is an interconnection among two or more computers or computing devices to share data and resources.
- (D) The term 'Workstation' refers to the most powerful computer of the network that facilitates sharing of data, software and hardware resources on the network and have more memory, processing power and storage than a normal node.

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

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

Question Number : 12 Question Id : 46419962 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Communication over mobile phone is an example of which type of communication mode ?

- (1) Simplex
- (2) Half-Duplex
- (3) Full-Duplex
- (4) Double-Duplex

Question Number : 13 Question Id : 46419963 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the following device provides the necessary translation of data received from network into a format or protocol recognized by devices with the internal network?

- (1) Bridge
- (2) Gateway
- (3) Router
- (4) Modem

Question Number : 14 Question Id : 46419964 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

A long cable that helps to connect several devices in bus topology having terminators at both end to prevent signal bounce is known as _____.

- (1) Drop Line
- (2) Taps
- (3) Analog cable
- (4) Backbone

Question Number : 15 Question Id : 46419965 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I	List-II
(A) readline()	(I) Writes a sequence of strings to the file
(B) writelines()	(II) Reads a single line from the file
(C) seek()	(III) Force any buffered output to be written to the file
(D) flush()	(IV) Moves the file pointer to the specified position

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

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

Computer Science

Section Id :	4641993
Section Number :	2
Section type :	Online
Mandatory or Optional :	Optional
Number of Questions :	35
Number of Questions to be attempted :	25
Section Marks :	125
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	4641995
Question Shuffling Allowed :	Yes

Question Number : 16 Question Id : 46419966 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

What is pickling ?

- (1) It is used to deserialize objects i.e. converting the byte stream to object hierarchy
- (2) It is used to serialize objects i.e. to convert python object hierarchy to byte stream
- (3) It is used to move the file pointer to specific location
- (4) It is used in exception handling

Question Number : 17 Question Id : 46419967 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Consider the following code and specify the correct order of the statements to be written

- (A) f.write("CUET EXAMINATION")
- (B) f=open("CUET.TXT", "w")
- (C) print("Data is Written Successfully")
- (D) f.close()

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

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

Question Number : 18 Question Id : 46419968 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which method from below will take a file pointer to n^{th} character with respect to r position ?

- (1) `fp.seek(r)`
- (2) `fp.seek(n)`
- (3) `fp.seek(n,r)`
- (4) `seek(n,r).fp`

Question Number : 19 Question Id : 46419969 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Evaluate the given postfix expression :

$3\ 5\ * \ 6\ + \ 2\ 3\ * \ -$

- (1) 39
- (2) 15
- (3) -9
- (4) -17

Question Number : 20 Question Id : 46419970 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Stack works on the principle of _____.

- (1) Mid Element First
- (2) First In First Out
- (3) Last In First Out
- (4) Last In Last Out

Question Number : 21 Question Id : 46419971 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I Term	List-II Description
(A) Prefix	(I) In this the element entered first will be removed last.
(B) Postfix	(II) In this the element entered first will be removed first.
(C) Queue	(III) In this the operator is placed before the operands.
(D) Stack	(IV) In this the operator is placed after the operands.

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

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

Question Number : 22 Question Id : 46419972 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

What will be the sequence of elements removed from the stack after performing the following operations

PUSH(10)

PUSH(20)

POP()

POP()

PUSH(30)

PUSH(40)

POP()

POP()

(A) 10

(B) 20

(C) 30

(D) 40

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

(1) (A), (B), (C), (D)

(2) (B), (A), (D), (C)

(3) (A), (B), (D), (C)

(4) (B), (A), (C), (D)

Question Number : 23 Question Id : 46419973 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

In Python, _____ module need to be imported for implementing Double Ended Queue.

(1) counter

(2) collections

(3) random

(4) numpy

Question Number : 24 Question Id : 46419974 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

What will be the position of front and rear after execution of the following statements, the Queue already had the given elements in FIFO order

50 → 90 → 7 → 21 → 73 → 77

↑

F

↑

R

dequeue()

dequeue()

dequeue()

dequeue()

dequeue()

enqueue(100)

dequeue()

- (1) Front 50, Rear 77
- (2) Front 100, Rear 100
- (3) Front 77, Rear 100
- (4) Front 73, Rear 77

Question Number : 25 Question Id : 46419975 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

_____ data type is used to implement Queue data structure in Python.

- (1) Sets
- (2) Dictionary
- (3) Tuple
- (4) List

Question Number : 26 Question Id : 46419976 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Choose the statements that are **correct**.

- (A) For Binary Search, all the elements have to be sorted.
- (B) For Linear Search, all the elements have to be sorted.
- (C) Linear Search takes less time for searching in worst case than binary search's worst case.
- (D) Linear Search always give fast result whether elements are sorted or not.

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

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

Question Number : 27 Question Id : 46419977 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Arrange the following in the ascending order of their time complexity.

- (A) Worst Case of Linear Search
- (B) Best Case of Binary Search
- (C) Worst Case of Binary Search
- (D) Worst Case of Bubble Sort

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

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

Question Number : 28 Question Id : 46419978 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

How many minimum number of comparison(s) can be required to search an element from 'n' elements, in case of Linear Search ?

- (1) 1
- (2) $n - 1$
- (3) n
- (4) $n + 1$

Question Number : 29 Question Id : 46419979 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the statement(s) is/ are True for the given question.

Data elements are : 7, 5, 17, 13, 9, 27, 31, 25, 35.

Hash Table Size: 7

Hash Function: $H(I) = (\text{Data element}) \bmod (\text{Hash Table Size})$

- (A) Element 27 will create collision.
- (B) Element 25 will create collision.
- (C) Element 35 will create collision.
- (D) Element 31 will create collision.

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

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

Question Number : 30 Question Id : 46419980 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

If a list contain 'n' number of elements and all the elements by default sorted in ascending order then how many comparisons will be required during 1st pass of bubble sort to arrange the list in ascending order ?

- (1) 0
- (2) 1
- (3) $n - 1$
- (4) n

Question Number : 31 Question Id : 46419981 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

What will be the result after the pass 2 using Bubble Sort, if we are sorting elements in ascending order ?

7	19	18	9	23	51	12	54	73
---	----	----	---	----	----	----	----	----

- (1)

7	18	19	9	23	12	51	54	73
---	----	----	---	----	----	----	----	----
- (2)

7	9	18	19	12	23	51	54	73
---	---	----	----	----	----	----	----	----
- (3)

7	9	19	18	12	23	51	54	73
---	---	----	----	----	----	----	----	----
- (4)

7	9	18	19	23	51	12	54	73
---	---	----	----	----	----	----	----	----

Question Number : 32 Question Id : 46419982 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

_____ compares neighbouring elements only and swaps them when necessary.

- (1) Selection Sort
- (2) Bubble Sort
- (3) Insertion Sort
- (4) Quick Sort

Question Number : 33 Question Id : 46419983 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

_____ are the unorganized facts that can be processed to generate meaningful information.

- (1) Information
- (2) Data
- (3) Blog
- (4) contexts

Question Number : 34 Question Id : 46419984 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

_____ is the positive square root of the average of squared difference of each value from the mean.

- (1) Mode
- (2) Variance
- (3) Median
- (4) Standard Deviation

Question Number : 35 Question Id : 46419985 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Consider the stock prices for shares of a company A for a week. To find difference of maximum and minimum value of the share price which statistical technique can be used :

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

Question Number : 36 Question Id : 46419986 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

What is the primary difference between a database and a file system ?

- (1) Databases are slower than file systems for retrieving data.
- (2) Databases offer structured data and relationships, while file systems do not.
- (3) File systems can support complex queries, unlike databases.
- (4) Both databases and file systems handle data in the same way.

Question Number : 37 Question Id : 46419987 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

A domain in a relational database refers to :

- (1) The overall database structure
- (2) A specific set of valid values for an attribute
- (3) A table containing multiple records
- (4) A relationship between two tables

Question Number : 38 Question Id : 46419988 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

A relation in a relational database is also known as :

- (1) A data type
- (2) An attribute
- (3) A schema
- (4) A table

Question Number : 39 Question Id : 46419989 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

The primary key is chosen from _____.

- (1) The most complex candidate key available.
- (2) All available candidate keys for a table.
- (3) The simplest candidate key available.
- (4) Any attribute within the table.

Question Number : 40 Question Id : 46419990 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

An alternate key is _____.

- (1) Another name for the primary key
- (2) A unique identifier besides the primary key
- (3) A relationship between two tables
- (4) A synonym for a tuple

Question Number : 41 Question Id : 46419991 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Consider the following SQL functions.

- (A) CURDATE()
- (B) CURRENT_DATE()
- (C) CURRENT_DATE
- (D) TODAY()

Which of the above function/ functions returns current date.

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

Question Number : 42 Question Id : 46419992 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the following is **correct** syntax for inserting foreign key constraint in a relation ?

- (1) ALTER TABLE table_name ADD FOREIGN KEY(attribute name) REFERENCES referenced_table_name(attribute name)
- (2) ADD TABLE table_name ADD FOREIGN KEY(attribute name) REFERENCES referenced_table_name(attribute name)
- (3) ALTER TABLE table_name REFERENCES referenced_table_name(attribute name) ADD FOREIGN KEY(attribute name)
- (4) MODIFY TABLE table_name ADD FOREIGN KEY(attribute name) REFERENCES referenced_table_name(attribute name)

Question Number : 43 Question Id : 46419993 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

What is result of following arithmetic operation in SQL ?

SELECT 5+NULL AS RESULT

- (1) 5
- (2) NULL
- (3) 0
- (4) 5NULL

Question Number : 44 Question Id : 46419994 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the following expression in SQL would calculate the square root of 16 ?

- (1) POWER(16,2)
- (2) POWER(16,0.5)
- (3) POWER(16,1)
- (4) MOD(16)

Question Number : 45 Question Id : 46419995 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the following statement(s) is/are TRUE in respect of Media Access Control (MAC) Address ?

- (A) It can be changed if a node is removed from one network and connected to another network.
- (B) Each MAC address is a 12-digit hexadecimal number.
- (C) It is a unique value associated with a network adapter called NIC.
- (D) It is provided by the Internet Service Provider to locate computers connected to the internet.

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

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

Question Number : 46 Question Id : 46419996 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Match List-I with List-II :

List-I Device	List-II Use
(A) RJ45 Connector	(I) relay frames between two originally separate segments that follow same protocols.
(B) Bridge	(II) amplifies a signal that is transmitted across the network so that the signal is received same as it is sent.
(C) Gateway	(III) establishes an intelligent connection between a local area network and external networks with completely different structures.
(D) Repeater	(IV) plug-in device primarily used for connecting LANs particularly Ethernet.

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

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

Question Number : 47 Question Id : 46419997 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

What is the purpose of Domain Name System Server in networking ?

- (1) To encrypt data during transmission.
- (2) To convert domain names into IP addresses
- (3) To regulate network traffic flow.
- (4) To establish a secure connection between devices.

Question Number : 48 Question Id : 46419998 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

140.168.220.200 is a 32-bit binary number usually represented as 4 decimal values, each representing 8 bits, in the range 0 to 255 separated by decimal points. What is this number called ?

- (1) IP Address
- (2) Web Address
- (3) MAC Address
- (4) Port Address

Question Number : 49 Question Id : 46419999 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

In a _____ topology, if there are n devices in a network, each device has $n-1$ ports for cables.

- (1) Mesh
- (2) Bus
- (3) Star
- (4) Ring

Question Number : 50 Question Id : 464199100 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Amit wants to be familiar with SQL. One of his friends Anand suggest him to execute following sql commands.

- (A) Create Table Student
- (B) Use Database DB
- (C) Select * from Student
- (D) Insert into Student

In which order Amit needs to run above commands.

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

Informatics Practices

Section Id :	4641994
Section Number :	3
Section type :	Online
Mandatory or Optional :	Optional
Number of Questions :	35
Number of Questions to be attempted :	25
Section Marks :	125
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	4641996
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 464199101 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

The SQL keyword _____ is used with wildcards.

- (1) LIKE
- (2) IN
- (3) NOT IN
- (4) DISTINCT

Question Number : 52 Question Id : 464199102 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Aggregate functions can be used with _____ clause .They can not be used with _____ clause.

- (1) WHERE,HAVING
- (2) HAVING,WHERE
- (3) GROUP BY,HAVING
- (4) SELECT,HAVING

Question Number : 53 Question Id : 464199103 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Match **List-I** with **List-II** :

List-I	List-II
(A) UNIQUE CONSTRAINT	(I) Does not allow NULL value and there can exist only one column or one combination with this constraint.
(B) PRIMARY KEY CONSTRAINT	(II) Automatically value is inserted when user does not enter a value for the column.
(C) DEFAULT CONSTRAINT	(III) Allows NULL values and their can exist multiple columns with this constraint.
(D) CHECK CONSTRAINT	(IV) Limits values that can be inserted into a column of a table.

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

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

Question Number : 54 Question Id : 464199104 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which function should be used to get first n rows of a dataframe ?

- (1) print(n)
- (2) head(n)
- (3) get(n)
- (4) call(n)

Question Number : 55 Question Id : 464199105 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

_____ is two dimensional data structure in Python with row index and column index.

- (1) DataFrame
- (2) List
- (3) Tuple
- (4) Series

Question Number : 56 Question Id : 464199106 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is used in a dataframe df, to check for the rows with roll_no above 101 and display boolean True or false.

- (1) df['roll_no']>101
- (2) df.roll_no<101
- (3) df.check(roll_no>101)
- (4) df.apply(check(roll_no>101))

Question Number : 57 Question Id : 464199107 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

To save data of a dataframe to a csv file use :

- (1) `to_csv()`
- (2) `to.csv()`
- (3) `from_csv`
- (4) `fill_csv()`

Question Number : 58 Question Id : 464199108 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Consider the task of printing records from a MySQL table named Student. Identify the correct order of the commands given below.

- (A) `print(df)`
- (B) `import sqlalchemy as sq`
- (C) `con=sq.create_engine("mysql+mysqlconnector://root@localhost/")`
- (D) `df=pd.read_sql("Student",con)`

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

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

Question Number : 59 Question Id : 464199109 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

To get the total of a numeric column in a dataframe df, use :

- (1) `df['column_name'].sum()`
- (2) `column_name.df.sum()`
- (3) `column_name.df.total()`
- (4) `df_total(column_name)`

Question Number : 60 Question Id : 464199110 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

_____ method is used to sort the data on the basis of index value.

- (1) `sort_asc()`
- (2) `sort_desc()`
- (3) `sort_value()`
- (4) `sort_index()`

Question Number : 61 Question Id : 464199111 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

_____ argument of `hist()` is used to create a horizontal histogram.

- (1) `landscape`
- (2) `portrait`
- (3) `orientation`
- (4) `type`

Question Number : 62 Question Id : 464199112 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

_____ plot is used to show the spread and centers of a dataset.

- (1) box
- (2) line
- (3) bar
- (4) histogram

Question Number : 63 Question Id : 464199113 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is the **correct** command to use matplotlib ?

- (1) `import plt.matplotlib as plot`
- (2) `import matplotlib.pyplot as plot`
- (3) `import matplotlib.pyplot as plt`
- (4) `import matplotlib.plot as plot`

Question Number : 64 Question Id : 464199114 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Consider a CSV file containing number of medals won by some countries in Olympics 2020
medal.csv

country	medals
UK	46
USA	53
China	49
Germany	39

The task is to create a pie chart from the above data :

- (A) `plt.pie(medal_data, labels='country_data')`
- (B) `medal_data=df['medals']`
- (C) `df=pd.read_csv('medal.csv')`
- (D) `country_data=df['country']`

Choose the **correct** sequence of the above commands from the options given below :

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

Question Number : 65 Question Id : 464199115 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

_____ is a third party software that is installed on the host computer and can be used by the browser for multiple functionalities.

- (1) Cookies
- (2) Plug-ins
- (3) Shortcuts
- (4) router

Question Number : 66 Question Id : 464199116 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is the domain name in the given URL below ?

<http://www.ncert.nic.in/exam/samplepaper.htm>

- (1) <http://www.ncert.nic.in>
- (2) www.ncert.nic.in/exam/samplepaper.htm
- (3) <http://>
- (4) [ncert.nic.in](http://www.ncert.nic.in)

Question Number : 67 Question Id : 464199117 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

_____ uses packet switching technology to carry voice traffic over an IP network where each packet follows best route to reach its destination.

- (1) E-mail
- (2) HTTP
- (3) VoIP
- (4) SMTP

Question Number : 68 Question Id : 464199118 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which among the following was the first web browser ?

- (1) Internet Explorer
- (2) Mosaic
- (3) Google Chrome
- (4) Opera

Question Number : 69 Question Id : 464199119 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Stealing someone's intellectual work and representing it as your own is known as.....

- (1) Fraud
- (2) Identity Theft
- (3) Online Stealing
- (4) Plagiarism

Question Number : 70 Question Id : 464199120 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following could be a disadvantage of 'open source' software ?

- (1) High quality software with lots of features
- (2) Not as customizable
- (3) May not have been tested as much as proprietary software so might have bugs
- (4) You can edit the source code to customize it

Question Number : 71 Question Id : 464199121 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Match **List-I** with **List-II** :

- | List-I | List-II |
|---|------------------------|
| (A) Ethical Hacking | (I) Phishing |
| (B) Legal mechanism to establish a sort of ownership of intellectual property | (II) White Hat Hackers |
| (C) Attempt to acquire sensitive information by masquerading as a trustworthy party in electronic communication | (III) Hacking |
| (D) Gaining unauthorized access to a computing device or a group of computer systems for some illicit purpose | (IV) Copyright |

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

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

Question Number : 72 Question Id : 464199122 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the following is **not** considered as a type of e-waste ?

- (1) Televisions
- (2) Personal Electronic Devices
- (3) Scammer and Copier
- (4) Newspaper

Question Number : 73 Question Id : 464199123 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Cat-5, Cat-5E and Cat-6 are examples of which of the following cables ?

- (1) Coaxial Cable
- (2) Shielded Twisted Pair Cable
- (3) Fiber Optic cable
- (4) Unshielded Twisted Pair Cable

Question Number : 74 Question Id : 464199124 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

_____ is an agreement between the communicating parties on how communication is to proceed over a network.

- (1) Ethernet
- (2) Protocol
- (3) Operating System
- (4) Antivirus

Question Number : 75 Question Id : 464199125 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following protocol defines that how the data is formatted and transmitted over the network ?

- (1) HTTP
- (2) SMTP
- (3) FTP
- (4) POP3

Question Number : 76 Question Id : 464199126 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Arrange the following electromagnetic waves in increasing order of their frequency range.

- (A) Microwaves
- (B) Infrared Waves
- (C) Light Waves
- (D) Radio Waves

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

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

Question Number : 77 Question Id : 464199127 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following are considered as the threats in network security ?

- (A) Malware
- (B) Virus
- (C) Firewall
- (D) Keyloggers

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

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

Question Number : 78 Question Id : 464199128 Question Type : MCQ Option Shuffling : No
Correct Marks : 5 Wrong Marks : 1

Which of the following is done by secretly listening to a conversation ?

- (A) Snooping
- (B) Denial of Service
- (C) Eavesdropping
- (D) Buffer Overflow

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

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

Question Number : 79 Question Id : 464199129 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Match **List-I** with **List-II** :

- | List-I | List-II |
|----------------|---|
| (A) Cookies | (I) Type of malware that targets user data |
| (B) Firewall | (II) Undetected unsolicited emails or messages |
| (C) Ransomware | (III) Small file or data packet which is stored by a website on the client's computer |
| (D) Spam | (IV) Network Security system designed to protect a trusted private network |

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

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

Question Number : 80 Question Id : 464199130 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

The software developed to detect and remove viruses only is called _____.

- (1) Malware
- (2) Antivirus
- (3) Spyware
- (4) Adware

Question Number : 81 Question Id : 464199131 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

_____ are the set of rules that governs how data can be transmitted over world wide web.

- (1) Hyper Text Transfer Protocol
- (2) Encryption Standards
- (3) Cyber forensic
- (4) Digital Certificates

Question Number : 82 Question Id : 464199132 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

What is the difference between COUNT(*) and COUNT(column_name) in a SQL query ?

- (1) COUNT(*) counts all rows, while COUNT(column_name) counts only non-null values in the specified column.
- (2) COUNT(*) counts only distinct values, while COUNT(column_name) counts all duplicate values.
- (3) COUNT(*) is faster than COUNT(column_name).
- (4) There is no difference; they both do the same thing.

Question Number : 83 Question Id : 464199133 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

A table Student has two text fields defined as below :

firstname varchar(10)

lastname char(10)

If firstname stores value as 'sachin' and lastname stores value as 'kumar', then firstname will consume _____ characters space and lastname will consume _____ characters space.

- (1) 6, 5
- (2) 6,10
- (3) 10,6
- (4) 5,6

Question Number : 84 Question Id : 464199134 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

_____ function is used to modify values of a dataframe in conjunction with group by.

- (1) index()
- (2) transform()
- (3) reindex()
- (4) import()

Question Number : 85 Question Id : 464199135 Question Type : MCQ Option Shuffling : No

Correct Marks : 5 Wrong Marks : 1

Which of the following are good net surfing etiquettes?

- (A) Share personal information freely
- (B) Closing browser tabs after use on public computers
- (C) Posting verified facts
- (D) Post controversial opinion without regards for others

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

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