

NAAHAR PUBLIC SCHOOL (CBSE) SENIOR SECONDARY, VILLUPURAM
ACADEMIC YEAR (2022-2023)
MONTHLY EXAM (Nov'22)

CLASS: XI

SUB: INFORMATICS PRACTICES(065)

SUB TEACHER: Mrs.DHIVYA.N

ANSWER KEY

MARKS: 50

DUR: 1 ½ Hrs

DATE:16.11.2022

I. MCQ

15 x 1 = 15

1. How can the user change "Scaler" into "Interviewbit" in the "Name" column in the Users table?
 - a. UPDATE User SET Name = 'Scaler' INTO Name = 'Interviewbit'
 - b. MODIFY Users SET Name = 'Interviewbit' WHERE Name = 'Scaler'
 - c. MODIFY Users SET Name = 'Scaler' INTO Name = 'Interviewbit'
 - d. UPDATE Users SET Name = 'Interviewbit' WHERE Name = 'Scaler'
2. Which operator performs pattern matching?
 - a. BETWEEN operator
 - b. LIKE operator
 - c. EXISTS operator
 - d. None of these
3. In SQL, which command(s) is(are) used to change a table's storage characteristics?
 - a. ALTER TABLE
 - b. MODIFY TABLE
 - c. CHANGE TABLE
 - d. All of the above.
4. In SQL, which of the following is not a data definition language commands?
 - a. Rename
 - b. Revoke
 - c. Grant
 - d. update
5. In SQL, which command is used to SELECT only one copy of each set of duplicable rows
 - a. SELECT DISTINCT
 - b. SELECT UNIQUE
 - c. SELECT DIFFERENT
 - d. None of the above

e. SELECT dept_name, ID,
avg (salary)

f. FROM instructor

g. GROUP BY dept_name;

h. This statement IS
erroneous because

i.a) Avg(salary) should not be selected

j.b) Dept_id should not be used in group by clause

k. c) Misplaced group by clause

l.d) Group by clause is not valid in this query

6. **The “father” of MySQL is _____.**
 - a. Michael Widenius
 - b. Bill Joy
 - c. Bill Gates
 - d. Stephanie Wall
7. **Which of the following can add a row to a table?**
 - a. Alter
 - b. Add
 - c. Insert
 - d. Create
8. **Which of these commands will delete a table called XXX if you have appropriate authority:**
 - a. DROP XXX
 - b. DELETE XXX WHERE confirm = “YES”
 - c. DROP XXX WHERE confirm = “YES”
 - d. DROP TABLE XXX
9. **The USE command**
 - a. Is a pseudonym for the SELECT command
 - b. Has been deprecated and should be avoided for security reasons
 - c. Should be used to choose the database you want to use once you’ve connected to MySQL
 - d. Is used to load code from another file
10. **The program called mysql is**
 - A. There isn’t a program just called mysql
 - B. A wrapper through which Java clients must connect to the databases
 - C. A client program that lets you send SQL commands to the database engine
 - D. The database engine
11. **What’s the difference between the DESCRIBE and SHOW FIELDS FROM commands?**
 - a. Only SHOW FIELDS FROM can take a LIKE clause
 - b. Nothing – they’re the same thing
 - c. Only DESCRIBE can take a LIKE clause
 - d.. None of the above
12. **The privilege _____ can be granted to retrieve data.**
 - a. READ
 - b. SELECT

- c. UPDATE
- d. RETRIEVE
- 13. ____ is the most popular Open Source SQL database management system.
A) MySQL
 B) Access
 C) MS SQL
 D) Oracle
- 14. ____ FUNCTION is used to drop user-defined functions.
 A) ALTER
 B) DELETE
C) DROP
 D) None of these
- 15. The ____ command can be used to show the metadata regarding the table created.
 A) SHOW
 B) EXPLAIN
 C) FIND
D) DESC

II. Very Short answers 15 x 1 = 15

16. Write full form of DBMS.

DataBase Management System

- 17. A group of rows and columns is called ____Table____.
- 18. Candidate Key – Primary key = ____Alternate Key____.
- 19. A primary key is one of the candidate key. (True/False)- True
- 20. What do you mean by degree and cardinality in DBMS?

Ans:
 Number of rows in a table is called cardinality. Number of columns in a table is called degree.

A. Answer the following questions on the basis the given table.

Admno	Name	Subject	Sex	Average
1001	Amit	Math	M	85.5
1002	Suman	English	F	90

- 21. How many attributes are there in above table?
 Ans:
 There are 5 attributes/columns
- 22. How many tuples are there in above table?
 Ans:
 There are 2 tuples
- 23. Name the primary key in the table.
 Ans: Admno is the primary key.
- 24. What is the purpose of creating primary key in table.
 Ans:
 Primary key is created in table to search a particular record in tables as uniqueness helps to search record.
- 25. Write any five attributes of book entity.
 Ans. Book number (book_no), Book name(bname) , Book Author(b_author), subject, book price(b_price)
- 26. What are the 5V's we follow in big data characteristics.
 Ans: Volume, Veracity, Variety, Velocity, Value
- 27. ____ BlockChain ____ Technology refers to the record-keeping technology used to hold transactional records while ensuring security, transparency, and decentralization.
- 28. A __Sensor__ converts the physical parameter (for example temperature, blood pressure, humidity, speed, etc.) into a signal which can be measured electrically.
- 29. The superimposition of computer-generated perceptual information over the existing physical surroundings is called ____Augumented Reality____.
- 30. __Virtual reality__ allows a user to look at, explore, and interact with the virtual surroundings, just like one can do in the real world.

III. Short Answer 5 x 2 = 10

31. List some of the cloud-based services that you are using at present.

Ans:

Answer: (A) Infrastructure as a Services (IaaS) – Google Drive, Git, Google Docs,

- (B) Platform as a Services (PaaS) – Web Server
- (C) Software as a Services (SaaS) – Microsoft Office 365,

32. Match the following:

Column A

- You got a reminder to take medication
- You got a SMS alert that you forgot to lock the door
- You got the SMS alert that parking space is available near your block
- You turned off your LED TV from your wrist watch

Column B

- Smart Parking
- Smart Wearable
- Home Automation
- Smart Health

33. Identify the DDL and DML commands from the following.

- 1. Create
- 2. Alter
- 3. Insert
- 4. Update
- 5. Drop
- 6. Delete
- 7. Select
- 8. Rename

Ans

- 1.DDL
- 2.DDL
- 3.DML
- 4.DML
- 5.DDL
- 6.DML
- 7.DML
- 8. DDL

34. Consider the following table STUDENT.

REGD.NO	NAME	BRANCH
0001	Ram	CSE
0002	Hari	MECH
0003	Pradeep	EEE
0004	Deepak	ETC

Write down the SQL command which will show the Regd. No of Pradeep.

The SQL command which will show the Regd.No of Pradeep is

SELECT regd.no from STUDENT WHERE name=Pradeep;

35. Consider the following table STUDENT.

REGD.NO	NAME	BRANCH
0001	Ram	CSE
0002	Hari	MECH
0003	Pradeep	EEE
0004	Deepak	ETC

I want to add another column in the STUDENT table as "address". How can I do that?

To add another column in STUDENT table we can use ALTER command as

```
Alter table student add address varchar2(30);
```

IV. Long Answer

2 x 5 = 10

36. Write a short note on Big data and its characteristics.

Ans:

Big data and its characteristics

According to [Gartner](#)

"Big data" is high-volume, -velocity and -variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making.

This definition clearly focuses on:

1. Large or Huge volume of data which is going to be processed
2. It can extract information which gives a huge benefit
3. It can help in decision making
4. It can provide insight information

Big data increases the volume day by day. It is in huge amount so cannot be processed or analyzed using conventional methods. Some of the popular terms associated with big data for processing are data mining, data storage, data analysis, data sharing, and data visualization.

Characteristics of Big data

1. **Volume:** It refers to the number of big data in terms of size. It is in very big size or voluminous data.
2. **Velocity:** It refers to the rate of data transfer at very high speed.
3. **Variety:** Data is available in different forms like structured, unstructured, and semistructured. It can be different files like text, images, videos, web pages, etc.
4. **Veracity:** It refers to the intensity of the reliability of data. When a large volume of data is going to be processed, sometimes chances are there to produce incorrect data.
5. **Value:** It is the quantity of data including amount, reliability of data to be processed.

37. Explain about the MySQL data types.

Class	Data Type	Description	Example
Text	CHAR(size)	A fixed-length string between 1 and 255 characters in length right-padded with spaces to the specified length when stored. Values must be enclosed in single quotes or double quotes.	'Maths' 'Text'
	VARCHAR(size)	A variable-length string between 1 and 255 characters in length; for example VARCHAR(25). Values must be enclosed in single quotes or double quotes	'Computer' 'Me and u'
NUMERIC	DECIMAL(p,s)	It can represent number with or 17.3 without the fractional part. The size argument has two parts: precision and scale. Precision (p) indicates the number of significant digits and scale (s) maximum number of digits to the right of the decimal point	
	INT	It is used for storing integer values	345
Date	DATE	It represents the date including day, month and year between 1000-01-01 and 9999-12-31	2009-07-02

38. Differentiate between cloud computing and grid computing with suitable examples.

Answer: Differences between Cloud Computing and Grid Computing

Cloud computing

One server to compute several tasks or services concurrently i.e Virtualization of services.

It is Service Oriented i.e more frequently used to support long services.

Multiple Services

On-demand services

A central computer server with single access point and spans several computing centres. Like Google and Amazon.

Virtualization of hardware, software and storage platforms.

Google Drive, One Drive, Mobile Applications

Grid computing

Multiple Servers are allocated on the Single Application.

Application oriented, i.e. typically used for job execution for a limited time.

Single Application

Maximum computing for one application.

A decentralized system, which spans geographically distributed sites and lack of central control.

Virtualization of data and computing resources.

GridGain, JPPF, JBossCache, EhCache,