

UNIT – IV: Distributed DBMS Reliability & Parallel Database Systems

Multiple Choice Questions (MCQs)

1. Reliability in Distributed DBMS refers to:

- A) Data formatting
- B) Continuous correct operation
- C) Data deletion
- D) Query execution

Answer: B

2. Fault tolerance means:

- A) Preventing backups
- B) Continuing operation despite failures
- C) Deleting errors
- D) Reducing storage

Answer: B

3. Which is a common failure in Distributed DBMS?

- A) Site failure
- B) Printer failure
- C) Monitor failure
- D) Keyboard failure

Answer: A

4. Site failure means:

- A) One database site becomes unavailable
- B) Entire network removed
- C) User logout
- D) Data compression

Answer: A

5. Network partitioning occurs when:

- A) Database is deleted
- B) Communication links fail
- C) Query stops
- D) Backup completes

Answer: B

6. Reliability protocols are designed to:

- A) Increase failures

- B) Maintain data consistency and recovery
- C) Encrypt data
- D) Delete records

Answer: B

7. Distributed reliability protocols operate across:

- A) Multiple sites
- B) One server
- C) One table
- D) One user

Answer: A

8. Fault tolerance is achieved using:

- A) Replication
- B) Recovery
- C) Redundancy
- D) All of these

Answer: D

9. Parallel database systems improve:

- A) Processing speed
- B) Network failure
- C) Security only
- D) Storage only

Answer: A

10. Parallel database architecture uses:

- A) Multiple processors
- B) Single processor
- C) Manual execution
- D) One transaction

Answer: A

11. Shared-memory architecture allows:

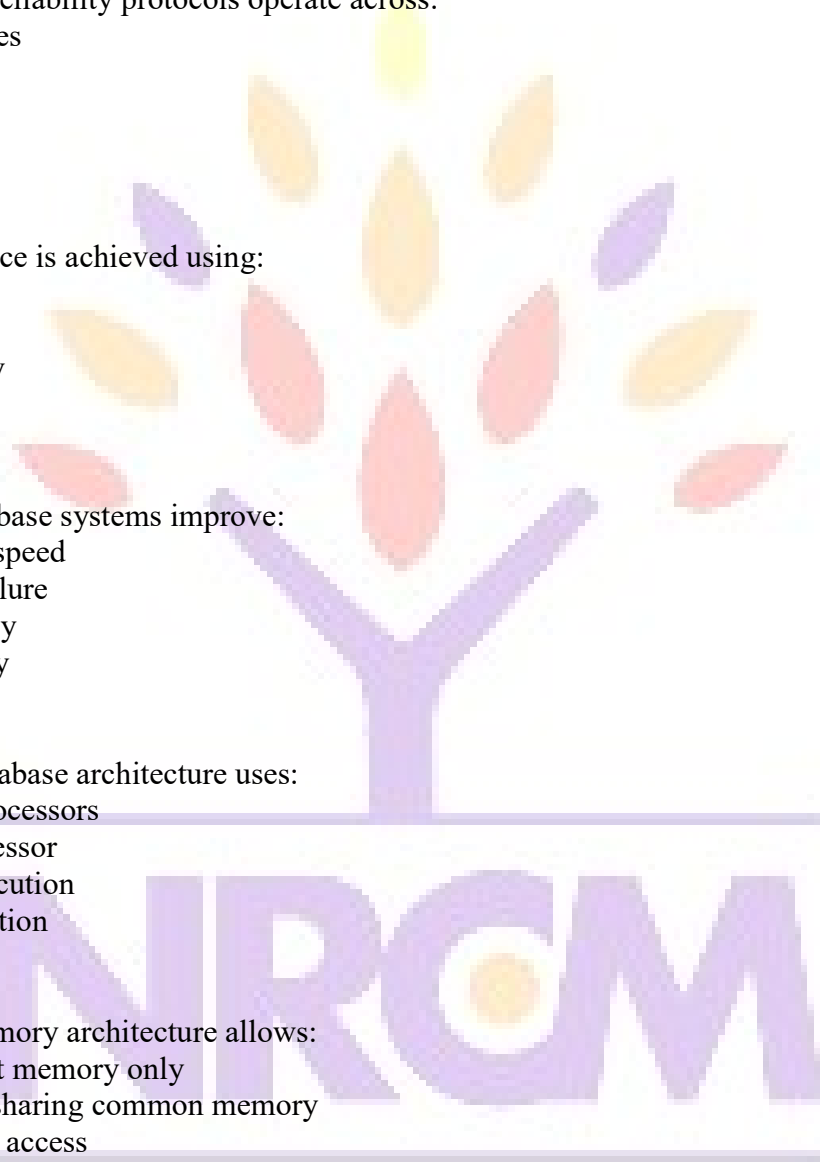
- A) Independent memory only
- B) Processors sharing common memory
- C) No memory access
- D) Cloud storage only

Answer: B

12. Shared-nothing architecture means:

- A) Shared CPU and memory
- B) Independent processors and disks
- C) No storage
- D) Shared database only

Answer: B



13. Parallel data placement distributes data to:

- A) Increase workload balance
- B) Reduce users
- C) Delete tables
- D) Increase delay

Answer: A

14. Parallel query processing executes:

- A) Sequentially
- B) Simultaneously
- C) Randomly
- D) Manually

Answer: B

15. Load balancing helps to:

- A) Distribute workload evenly
- B) Increase failures
- C) Reduce storage
- D) Encrypt data

Answer: A

16. Database clusters consist of:

- A) Multiple connected database servers
- B) Single computer
- C) One table
- D) One processor

Answer: A

17. Reliability is commonly measured using:

- A) Availability
- B) Screen size
- C) Query count
- D) Memory size

Answer: A

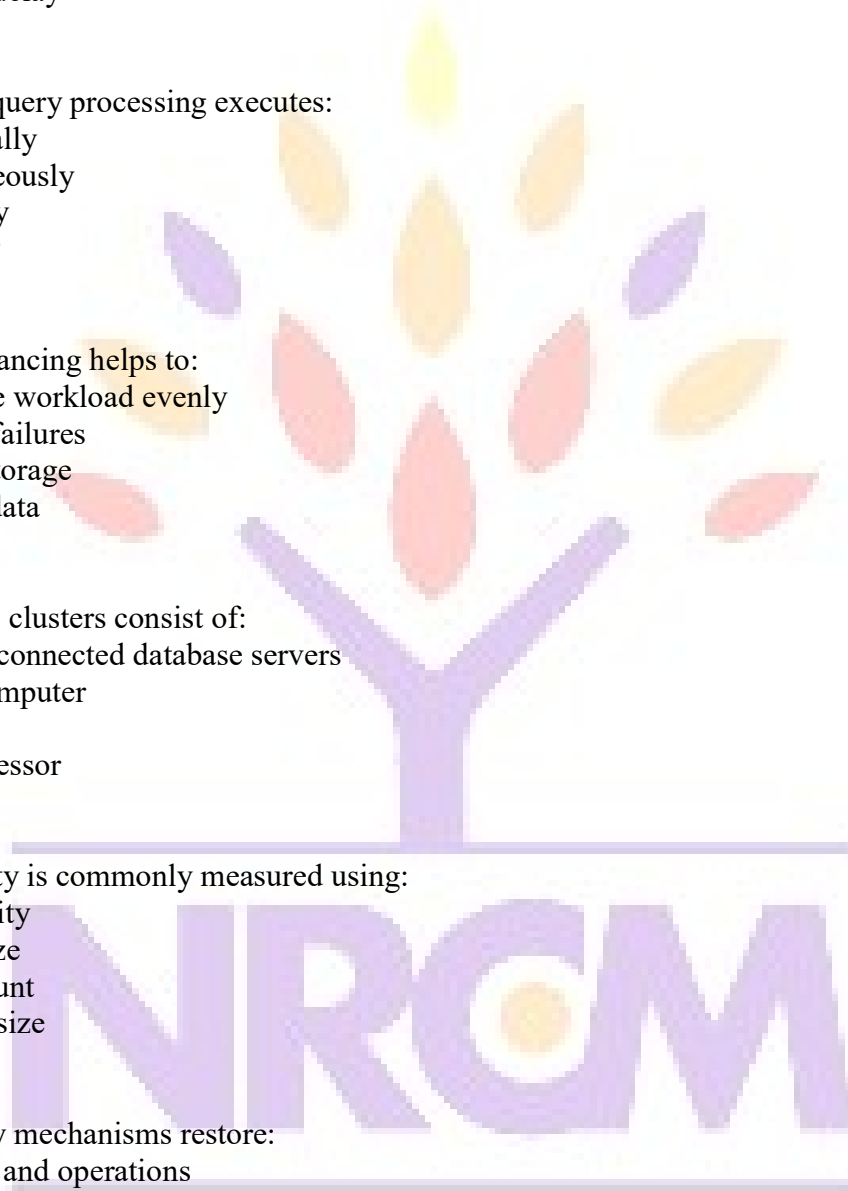
18. Recovery mechanisms restore:

- A) Lost data and operations
- B) User login
- C) Reports
- D) Tables only

Answer: A

19. Parallel systems increase:

- A) Throughput
- B) Delay
- C) Failure



D) Cost only

Answer: A

20. Network partitioning mainly affects:

A) Communication between sites

B) Screen output

C) CPU speed

D) Keyboard response

Answer: A

Fill in the Blanks

1. Reliability refers to continuous _____ operation.

Answer: correct

2. Fault tolerance enables systems to continue after _____.

Answer: failures

3. A _____ failure occurs when one site becomes unavailable.

Answer: site

4. Network partitioning interrupts _____ among sites.

Answer: communication

5. Reliability protocols ensure data _____.

Answer: consistency

6. Distributed DBMS supports _____ recovery.

Answer: fault

7. Database availability is a measure of _____.

Answer: reliability

8. Parallel database systems use multiple _____.

Answer: processors

9. Shared-memory systems use common _____.

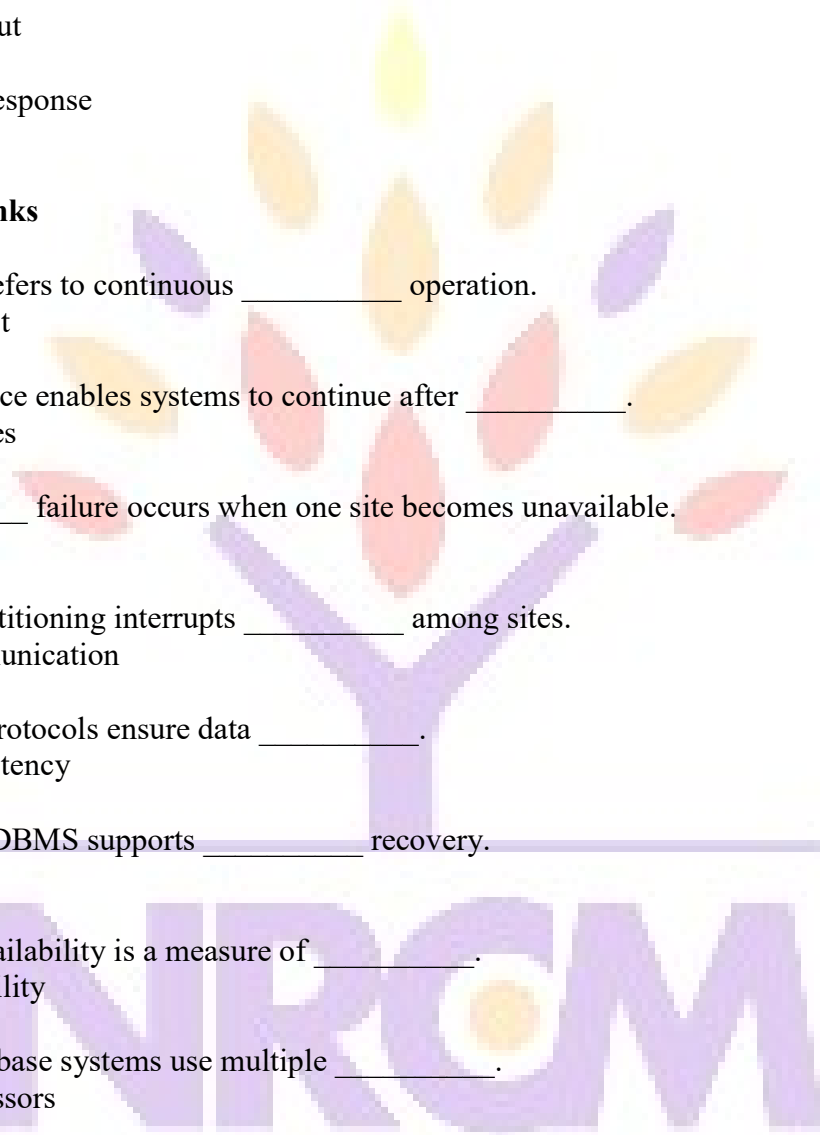
Answer: memory

10. Shared-nothing architecture uses separate _____ and disks.

Answer: processors

11. Parallel data placement improves _____ distribution.

Answer: workload



12. Parallel query processing improves execution _____.
Answer: speed

13. Load balancing distributes system _____.
Answer: load

14. Database clusters consist of multiple _____.
Answer: servers

15. Replication increases system _____.
Answer: reliability

16. Recovery restores lost _____.
Answer: data

17. Throughput refers to completed _____ per unit time.
Answer: tasks

18. Network failures may cause _____ partitioning.
Answer: network

19. Database clusters improve _____.
Answer: availability

20. Parallel systems execute operations _____.
Answer: simultaneously



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