



قائمة الاسئلة

نظم إدارة قواعد بيانات - المستوى الرابع - نظم معلومات - الكل - كلية الحاسوب وتكنولوجيا المعلومات - درجة الامتحان (40)

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- 1) What is the primary goal of database security?
 - 1) - Improving query performance
 - 2) ☒ Protection of data from accidental or intentional loss, destruction, or misuse
 - 3) - Increasing data redundancy
 - 4) - Simplifying database structures
- 2) What is the primary responsibility of the Database Administrator (DBA)?
 - 1) - Writing SQL queries
 - 2) - Designing user interfaces
 - 3) ☒ Granting privileges and managing database security
 - 4) - Optimizing hardware configurations
- 3) Which of the following is NOT a type of threat to data security?
 - 1) - Accidental losses
 - 2) - Theft and fraud
 - 3) ☒ Data normalization
 - 4) - Loss of confidentiality
- 4) What is the purpose of discretionary access control (DAC)?
 - 1) - To enforce mandatory policies
 - 2) ☒ To grant or revoke privileges for users and roles
 - 3) - To encrypt data during transmission
 - 4) - To define database relationships
- 5) Which of the following methods ensures data is unreadable to unauthorized users?
 - 1) - Authentication schemes
 - 2) ☒ Encryption
 - 3) - Statistical database security
 - 4) - Flow control
- 6) What is the primary feature of role-based access control (RBAC)?
 - 1) - Creating individual permissions for each user
 - 2) ☒ Assigning predefined roles to users
 - 3) - Providing unrestricted access to administrators
 - 4) - Ensuring database backups
- 7) What does the GRANT OPTION in SQL allow a user to do?
 - 1) - Automatically revoke privileges
 - 2) ☒ Assign their granted privileges to other users
 - 3) - Encrypt database tables
 - 4) - Backup the database
- 8) What is a Distributed Database Management System (DDBMS)?
 - 1) - A system that manages multiple local databases independently
 - 2) ☒ A software system that manages a distributed database
 - 3) - A hardware component used for database storage
 - 4) - A network topology used for data transmission
- 9) Which of the following is a type of transparency in a distributed database?
 - 1) - Location transparency
 - 2) - Design transparency
 - 3) - Execution transparency
 - 4) ☒ All answers are correct



- 10) What is the primary advantage of data replication in a distributed database?
- 1) - Reduces storage requirements
 - 2) ☒ Improves availability and fault tolerance
 - 3) - Eliminates data redundancy
 - 4) - Increases transaction processing time
- 11) What type of fragmentation divides a relation by columns?
- 1) - Horizontal fragmentation
 - 2) ☒ Vertical fragmentation
 - 3) - Hybrid fragmentation
 - 4) - Complete fragmentation
- 12) Which technique is used in distributed query optimization to reduce data transfer?
- 1) - Two-phase commit
 - 2) ☒ Semijoin
 - 3) - Full outer join
 - 4) - Primary copy method
- 13) In a distributed database, what does partition tolerance mean?
- 1) ☒ The ability to work even if some nodes are unavailable
 - 2) - The ability to handle only a single query at a time
 - 3) - The ability to replicate data across all nodes
 - 4) - The ability to reduce storage costs
- 14) What is the main role of a global transaction manager in a distributed database?
- 1) - To manage only local transactions
 - 2) ☒ To coordinate execution with transaction managers at multiple sites
 - 3) - To ensure a single-site transaction control
 - 4) - To delete redundant data
- 15) What does the two-phase commit protocol ensure in a distributed transaction?
- 1) - The transaction is executed at only one site
 - 2) ☒ All sites agree on committing or aborting the transaction
 - 3) - Transactions are executed sequentially
 - 4) - A backup copy is always maintained
- 16) In a distributed database, what is the main purpose of using a voting method in concurrency control?
- 1) - To eliminate the need for locking mechanisms
 - 2) - To ensure data is replicated evenly
 - 3) ☒ To grant a lock to a transaction only if it receives a majority of votes
 - 4) - To reduce storage costs
- 17) What does a federated database system (FDBS) provide?
- 1) ☒ A global schema for the federation of databases
 - 2) - A centralized database stored on one node
 - 3) - A real-time transaction monitoring tool
 - 4) - An alternative to distributed database systems
- 18) What is an enhanced data model?
- 1) - A database model used only for relational databases
 - 2) - A traditional database model used for small-scale applications
 - 3) ☒ An extension of traditional database models to support specialized applications
 - 4) - A model used exclusively for cloud computing
- 19) What is the primary function of an active database?
- 1) - To store and retrieve multimedia files
 - 2) ☒ To respond automatically to events using rules called triggers
 - 3) - To manage spatial data for Geographic Information Systems (GIS)



- 4) - To analyze historical trends in datasets
- 20) Which of the following is a key feature of active databases?
- 1) - Temporal attributes
 - 2) + Event-condition-action (ECA) rules
 - 3) - Spatial indexing
 - 4) - Image tagging
- 21) What is the purpose of triggers in an active database?
- 1) - To define the structure of a table
 - 2) - To update data manually when needed
 - 3) + To automatically execute specific actions in response to certain events
 - 4) - To ensure only one user can access the database at a time
- 22) What is a temporal database?
- 1) - A database that handles only present data
 - 2) + A database that manages time-sensitive data with time-related attributes
 - 3) - A database optimized for high-speed transactions
 - 4) - A database used to store financial transactions only
- 23) Which of the following is NOT an application of temporal databases?
- 1) - Financial systems
 - 2) + Geographic Information Systems (GIS)
 - 3) - Healthcare and medical history tracking
 - 4) - Insurance and reservation systems
- 24) Which of the following is NOT a characteristic of multimedia databases?
- 1) - Content-based retrieval
 - 2) - Support for images, videos, and audio
 - 3) + Handling only structured text data
 - 4) - Semantic tagging of images
- 25) What is the primary function of a deductive database?
- 1) - To store only numerical data
 - 2) + To provide reasoning capabilities using logic-based query languages
 - 3) - To optimize spatial data retrieval
 - 4) - To improve multimedia file compression
- 26) What are the three V's of Big Data?
- 1) - Volume, Value, Velocity
 - 2) + Volume, Velocity, Variety
 - 3) - Volume, Variability, Veracity
 - 4) - Value, Velocity, Variability
- 27) Which of the following best defines Big Data?
- 1) - Large datasets that require traditional databases
 - 2) - Data that can be processed using Excel spreadsheets
 - 3) + Massive datasets requiring specialized frameworks for processing
 - 4) - Small datasets with structured formats
- 28) Which of the following is a core component of Hadoop?
- 1) - SQL Server
 - 2) - Apache Tomcat
 - 3) + HDFS
 - 4) - MongoDB
- 29) What does HDFS stand for?
- 1) - Hadoop Data File System
 - 2) - Hadoop Distributed File Storage



- 3) ☒ Hadoop Distributed File System
- 4) ☐ High-Definition File System
- 30) What is the function of the NameNode in Hadoop?
- 1) ☐ Stores actual data blocks
- 2) ☒ Manages metadata and file system namespace
- 3) ☐ Runs MapReduce programs
- 4) ☐ Schedules resource allocation in YARN
- 31) What does the Secondary NameNode do in Hadoop?
- 1) ☒ Acts as a backup for the NameNode
- 2) ☐ Stores actual data blocks
- 3) ☐ Handles all client requests
- 4) ☐ Processes queries in Hadoop
- 32) What is the purpose of MapReduce in Hadoop?
- 1) ☐ Distributed storage of data
- 2) ☐ Scheduling and managing resources
- 3) ☒ Distributed data processing
- 4) ☐ Managing file system metadata
- 33) What does Business Intelligence (BI) focus on?
- 1) ☐ Data storage only
- 2) ☒ Gathering, processing, and analyzing data for decision-making
- 3) ☐ Software development
- 4) ☐ Network security
- 34) Which of the following is NOT a characteristic of Business Intelligence?
- 1) ☐ Data-driven decision-making
- 2) ☐ Transforming raw data into meaningful insights
- 3) ☒ Randomized experiments without data processing
- 4) ☐ Reporting and analytics
- 35) Which of the following best defines Business Analytics?
- 1) ☒ A subset of BI focused on statistical analysis and predictive modeling
- 2) ☐ A simple data storage technique
- 3) ☐ Only used for financial analysis
- 4) ☐ A method to delete unnecessary data
- 36) What is the main difference between Business Intelligence (BI) and Business Analytics (BA)?
- 1) ☒ BI focuses on historical data, while BA predicts future trends
- 2) ☐ BA is used only for government organizations
- 3) ☐ BI ignores data visualization
- 4) ☐ BA does not use machine learning techniques
- 37) Which process involves organizing and structuring raw data into useful information?
- 1) ☐ Data Mining
- 2) ☐ Data Analytics
- 3) ☐ Data Processing
- 4) ☒ All of the answers
- 38) What does KPI stand for in BI?
- 1) ☐ Key Processing Indicator
- 2) ☒ Key Performance Indicator
- 3) ☐ Knowledge Processing Information
- 4) ☐ Known Process Integration
- 39) What is the primary goal of Business Intelligence?
- 1) ☒ Improve decision-making



- 2) - Replace human employees
 - 3) - Store unnecessary data
 - 4) - Remove cybersecurity risks
- 40) Which of the following is a BI visualization tool?
- 1) ☒ Tableau
 - 2) - Photoshop
 - 3) - Windows Media Player
 - 4) - WordPress