



قائمة الاسئلة

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

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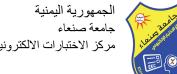
- 1) What is the primary goal of database security?
 - 1) Improving query performance
 - 2) + Protection of data from accidental or intentional loss, destruction, or misuse
 - 3) Increasing data redundancy
 - 4) Simplifying database structures
- 2) What is the primary responsibility of the Database Administrator (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



4)

11)

12)



- 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
 - Increases transaction processing time
 - What type of fragmentation divides a relation by columns?
 - 1) Horizontal fragmentation
 - 2) + Vertical fragmentation
 - 3) Hybrid fragmentation
 - 4) Complete fragmentation
 - 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)



20)

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- 4) To analyze historical trends in datasets
 - 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



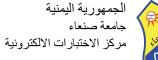
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- 3) + Hadoop Distributed File System
- 4) High-Definition File System
- 30) What is the function of the NameNode in Hadoop?
 - 1) Stores actual data blocks
 - 2) + Manages metadata and file system namespace
 - 3) Runs MapReduce programs
 - 4) Schedules 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
 - What is the primary goal of Business Intelligence?
 - 1) + Improve decision-making

39)







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