

SAMPLE MID-SEMESTER TEST QUESTIONS

1. Operational systems are not very useful for strategic information needs because:
 - a. They do not have up-to-date data
 - b. The information in them is only applicable for the purpose of the process that the system was design for*
 - c. You cannot get access to the database through the source application
 - d. Vendors provide all the reports that are needed to run the business
2. Which of the following provides the best description for timely data?
 - a. Data available from every transaction
 - b. Data available in the data warehouse after a very short time (e.g. no more than 2 minutes) after appearing in an operational system.
 - c. Data that is delivered to the report viewer when they press the 'refresh' button
 - d. Depends on the business process*
3. What is the main goal of integrating organisational data?
 - a. Create single view of organizational data
 - b. Creating enterprise view of data
 - c. Create master data
 - d. All of the above*
4. There are five types of data warehouse architecture (Centralized, Independent, Federated, Hub and Spoke, Datamart Bus). Which of the following statements is true
 - b. The Hub and Spoke is similar to the centralized method but it also allows data marts to be created for various departments.

not properly covered in class
5. How many data warehouses an organization can have?
 - a. One*
 - b. Two to five
 - c. Five to seven
 - d. As many as needed
6. How many data marts an organization can have?
 - a. One
 - b. Two to five
 - c. Five to seven
 - d. As many as needed*

7. Which of the following is an incorrect description of a data mart?
- a. It provides enterprise wide view of all organisational data*
 - b. It is a subsection of a data warehouse
 - c. It focuses on the information needs of a single business group
 - d. It is always built and loaded from information from in the enterprise data warehouse
8. Star schemas supports efficient (fast) organizational decision making because?
- a. They support a business analytics view of the organisation
 - b. Business intelligence visualization can only be used to connect to them
 - c. It has de-normalised data which requires less joins than operational systems
 - d. Both a and c*
9. Which of the following statements are true about metadata?
- a. It is used by the database management system to manage its operations and is not visible to anyone else.
 - b. It contains description about fields and tables in the data warehouse which can help understand the (data) lineage of the fields
 - c. It contains information about pre-defined queries and reports
 - d. b and c*
10. Every star schema has dependencies in its load. Which of the following statements are true?
- d. Fact tables are always loaded after dimension tables to ensure dimension keys are available for lookup.*
- *not properly covered in class*

1. What is the main goal of dimensional modelling?
 - a. Produce simple end user-friendly database structures*
 - b. Optimize the update performance
 - c. Facilitate the administration of databases
 - d. All of the above
2. Which of the following sources can be used to extract data?
 - a. Source databases
 - b. Flat (e.g. csv) and excel files maintained by business
 - c. Application Programming Interfaces (APIs)
 - d. All of the above*
3. Which of the following is an incorrect description of a data mart?
 - a. It provides enterprise wide view of all organisational data*
 - b. It is a subsection of a data warehouse
 - c. It focuses on a single business process
 - d. It can connect to other data marts
4. Why does data warehouse design support efficient (fast) organizational decision-making?
 - a. It provides data at the lowest level of detail
 - b. It has up to date data
 - c. It has de-normalised data*
 - d. Both a and c
5. Which description is correct for non-volatile data?
 - a. It gets updated immediately every time data changes
 - b. Helps with historical analysis of data
 - c. Users have a "read only" access*
 - d. All of the above
6. What visualization operator do dimension hierarchies enable?
 - a. Drill down*
 - b. Drill across
 - c. Pivoting
 - d. All of the above
7. Chunking is a method which can be used to build a star schema. The chunking involves?
 - a. Using a Hub and spoke architecture
 - b. Using an independent architecture
 - c. Identifying tables which are classified as transactions, components and classification and using them to create facts, dimensions and hierarchy tables in the star schema
 - d. Identifying tables which are classified as transactions, components and classification and using them to create facts and dimensions in the star schema*

8. Operational systems are not very useful for strategic information needs because:
- a. They do not have up-to-date data
 - b. The information in them is only applicable for the purpose of the process that the system is design for*
 - c. You cannot get access to the database through the source application
 - d. They provide aggregated measures that are too difficult to understand for running a business
9. Which of the following provides the best description for a transactional database?
- a. Offers a historical perspective through archival data
 - b. Delivers a comprehensive overview over organisational data
 - c. Provides reports to the viewers when they press the 'refresh' button
 - d. Are optimized for the immediate support of a particular business process*
10. The data to ink ratio is a way to:
- a. Improve your visualization by making specific parts of your visualization bold
 - b. Highlight important visuals with a colourful background
 - c. Improve the visual effect of your image by choosing the correct picture for your dashboard
 - d. Remove redundant features from your visual*