**QUIZ 3**

1. Select the best answer. A dimension table can contain a reference to another dimension table. This second-dimension table is also known as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  
   Ans: Outrigger dimension
2. Consider the Enhanced Inventory Periodic Snapshot schema shown in Figure 4-3 in the text.  
   What is the formula to compute the inventory turnover per year?

Ans: Total quantity sold in a year divided by the daily average quantity on hand.

1. What type of slowly changing dimension that describes the following actions? when a product’s department changed on a certain date, a new product dimension row for that product is inserted to reflect the new department attribute value.

Ans: Type 2

1. Select the best answer. The following Slowly Changing Dimension types are most relevant if you have been asked to preserve the historically accurate dimension attribute associated with a fact event, while supporting the option to report historical facts according to the current attribute values.

Ans: Types 5, 6, and 7

1. Select the best answer. What type of slowly changing dimension that allows you to see new or historical fact data by either the new or prior attribute value?

Ans: Type 3

1. The three fundamental types of fact tables are \_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_ fact tables

Ans: transaction, periodic snapshot, and accumulating snapshot

1. Which one of the following options is not a procurement organization’s analytic requirements:

Ans: Do we have enough budget to purchase equipment?

1. Which one of the following transactions is not a procurement transaction?

Ans: Package product for shipment

1. In the following list of dimensions, which one is not a dimension in procurement business processes?

Ans: Account dimension

1. What type of slowly changing dimension that describes the following actions? You overwrite the old attribute value in the dimension row, replacing it with the current value.

Ans: Type 1

1. If a business firm is interested in monitoring product movement as it proceeds through the procurement pipeline, what type of fact table does it need?

Ans: Procurement accumulating snapshot fact table

1. What is the main drawback of the Slowly Changing Dimension Type 1? Select the best answer.

Ans: It does not maintain any history of prior attribute values

1. In the Inventory Periodic Snapshot schema shown in Figure 4-2 in the text, the fact table has  
   three dimension tables: Date, Product, and Store dimension tables. If a query requested the  
   average inventory for a particular product in four stores within a week, can we use the SQL AVG function to compute the average inventory over a week time? Select the best answer.

Ans: No, the AVG function would divide the summed inventory value by 28, which is incorrect.

1. What type of slowly changing dimension that makes use of an outrigger dimension?

Ans: Type 5

1. Although dimension table attributes are relatively static, they are not fixed forever. Attribute values change over time. When the rate of change is high, especially within a large dimension table, what type of Slowly Changing Dimension should be used? Select the best answer.

Ans: Type 4

1. What Slowly Changing Dimension types modify the relevant fact table?

Ans: Type 7

1. The "Row Effective Date" and "Row Expiration Date" columns are used in what type(s) of slowly changing dimension?

Ans: Both Types 2 and 6

1. In the Inventory Periodic Snapshot schema shown in Figure 4-2 in the text, the fact table has  
   three dimension tables: Date, Product, and Store dimension tables. Assume that the minimum reorder quantity for a product varies by store. In what table should we put the minimum reorder quantity attribute?

Ans: None of the above

1. The columns of the Enterprise Data Warehouse Bus Matrix represent the \_\_\_\_\_\_\_\_ used across the enterprise.

Ans: common dimensions

1. Which one of the following statements is not true?

Ans: All conformed dimensions must have the same number of rows, same key values, same  
attribute labels, same attribute data definitions, and same attribute values.

1. What type of slowly changing dimension that uses pre-defined band ranges?

Ans: Type 4

1. Chart of accounts naturally decomposes into two dimensions. These two dimensions are \_\_\_\_\_\_\_\_.

Ans: Account and Organization dimensions

1. In the General Ledger Journal Entry Fact table, the data is captured by posting date, but users may also want to summarize the data by fiscal account period. Unfortunately, fiscal accounting periods often do not align with standard Gregorian calendar months. Moreover, in more complex situations, you may deal with a large number of fiscal calendars that vary by subsidiary or line of business. In this more complex situation, you could identify the official corporate fiscal calendar in the date dimension. You then have several options to address the subsidiary-specific fiscal calendars. What is the most common option?

Ans: To create a date dimension outrigger with a multipart key consisting of the date and subsidiary keys

1. How to design an order line transaction fact table for a large multinational company with sale offices around the world? Note that this type of multinational company may be capturing order transactions in more than 15 different currencies.

Ans: express each order line transaction fact amount in both the local transaction currency and the standardized corporate currency, such as U.S. dollars.

1. When modeling the order line transaction fact table and its dimensions, do we want to have an order header dimension that joins to the fact table via the order number column (field)?

Ans: No, because the order header dimension is likely very large.

1. When modeling complex transactional source data, dimensional modelers often encounter a number of miscellaneous indicators and flags that are populated with a small range of discrete values. What is an appropriate way (design) to handle these low cardinality flags and indicators?

Ans: study these flags and indicators carefully and then pack them into one or more junk dimensions

1. For an expense budget line item, what is the grain of the Budget Fact table?

Ans: net change of the budget line item in an organizational cost center that occurred during the month

1. The customer dimension contains one row for \_\_\_\_\_\_\_\_\_\_\_\_\_.

Ans: each customer Ship To address

1. Very large companies may have multiple ledgers arranged in an ascending hierarchy. At the lowest level, department ledger entries may be consolidated to roll up to a single division ledger entry. Then the division ledger entries may be consolidated to the enterprise level. How can you model this hierarchy in the General Ledger Snapshot Fact table?

Ans: both a and b

1. In order management dimensional modeling, what is the primary reason to construct factless-fact table for sales rep assignments to customers?

Ans: To provide a complete map of the historical assignments of sales reps to customers, even if some of the assignments never resulted in a sale.

1. What type of fact table would help us better understand the current state of an order, as well as product movement velocities to identify pipeline bottlenecks and inefficiencies?

Ans: order fulfillment accumulating snapshot fact table

1. The dimension attributes may form hierarchies. For example, a location dimension has three slightly ragged variable depth hierarchies. What is the best way to model an organization structure dimension that has a ragged hierarchy of indeterminate depth?

Ans: By building a special kind of bridge table that is independent from the primary  
dimension table and contains all the information about the hierarchy

1. Which one is not true?

Ans: In a fact table, if a fact value is null, we must replace it with zero

1. Which of the following is true?

Ans: In the Retail Sales Fact table, the Extended Sales Dollar Amount is additive

1. On an order, there may be a shipping charge that applies to the entire order. The dimensional modeler's first response should be to try to force all the facts down to the lowest level. This procedure is broadly referred to as

Ans: Cost Allocation

1. What is the grain of the General Ledger Journal Entry Fact table?

Ans: One row for every general ledger journal entry transaction

1. Dimension role playing refers to which one of the following situations?

Ans: A single dimension simultaneously appears several times in the same fact table. The

underlying dimension exists as a single physical table, but we create multiple views from it. Each of the views represents a different role.

