Midterm P1

Due Jul 2 at 3pm   **Points** 100   **Questions** 50

Available Jul 2 at 12:01pm - Jul 2 at 3pm about 3 hours   **Time Limit** 60 Minutes

Attempt History

	Attempt	Time	Score
LATEST	**Attempt 1**	60 minutes	67 out of 100

⚠ Correct answers are hidden.

Score for this quiz: **67** out of 100
Submitted Jul 2 at 1:15pm
This attempt took 60 minutes.

Incorrect	**Question 1**	**0 / 2 pts**

What CDC technique records the current snapshot and compares it to the previous snapshot to determine all the changes that occurred in the data source since the last CDC run?

> Row difference comparison

Incorrect	**Question 2**	**0 / 2 pts**

Columns such as ETL Job ID, job start time, job completion time and duration are used in what service:

> Aduit service

Question 3

2 / 2 pts

Which among the below belong to data transformation services?

- ◉ data conversion services

- ○ Source system analysis

- ○ Source to target mapping

- ○ Change Data Capture (CDC)

Partial

Question 4

1 / 2 pts

Why do IT groups choose to manually code data integration processes:

- ☑ Tools are too expensive

- ☑ Expertise is scarce

- ☐ Enables impact analysis

- ☑ Ensures documentation of processes

Incorrect

Question 5

0 / 2 pts

What service provides, monitoring, reporting and analytical functionality on management service including the ability to send alerts based on development or processing events

○ Operations reporting

◉ Software management service

○ Repository management

○ Data Profiling

Question 6

2 / 2 pts

what is an example of a data structure transformation service?

◉ EDW integration schema services

○ data profiling services

○ data quality services

○ Operations Management Services

Question 7

2 / 2 pts

What data integration service's purpose is to monitor and manage the design, development and running of data integration services:

○ Access & Delivery

○ Data profiling

○ Data ingestion

○ Data transformation

○ Data quality

○ Process management

◉ Operations management

○ Data transport

Question 8   2 / 2 pts

What data integration service's purpose is to gather data from one or more sources so that it can then be consumed by other data integration services:

◉ Access & Delivery

○ Data profiling

○ Data ingestion

○ Data transformation

○ Data quality

○ Process management

○ Operations management

○ Data transport

Question 9   2 / 2 pts

Which of the following is not a part of audit service?

⦿ Error handling

○ Data integration jobs

○ Data quality metrics

○ Table and row update

Question 10   2 / 2 pts

Data profiling \is also called?

Source system analysis

Question 11   2 / 2 pts

When designing an analytical data architecture what is the first data store to be modeled?

⦿ EDW

○ Staging

○ ODS

○ BI schemas

○ Data Lake

○ Distribution schema

Question 12

2 / 2 pts

Business people & SMEs validating the data by using BI applications is part of what type of testing.

◉ User acceptance testing

○ Integration testing

○ Unit testing

○ System & performance testing

○ Regression testing

○ Midterm exam

Incorrect

Question 13

0 / 2 pts

The purpose of data [a] is to "package" the data to make it easier for business users to understand and use.

> Data model

Question 14

2 / 2 pts

Performing source systems analysis is required to design data integration processes. Which of the following is a source system analysis task?

◉ Perform data profiling

○ Perform data cleansing

○ Design data warehouse dada model

○ Design BI dashboards

○ Create source-to-target mappings

Question 15   2 / 2 pts

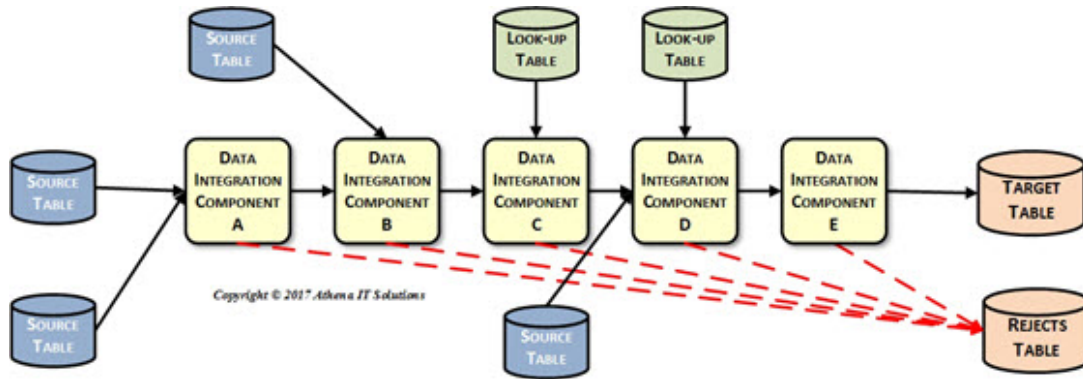Which of the following DI workflows are data preparation processes?

☑ ODS to Integration Schema

☑ SOR to ODS

☑ Staging to MDM

☑ Staging to Integration Schema

☑ MDM to Integration Schema

☐ MDM to Distribution Schema

☐ BI Schema to BI Tool-Specific Data

☐ Distribution Schema to BI Schema

☐ Distribution Schema to Applications

☐ Integration Schema to Distribution Schema

Incorrect

Question 16　　　　　　　　　　　　　　　　　　　　0 / 2 pts

The following model depicts a [a] data integration model:

| Physical model |

Question 17　　　　　　　　　　　　　　　　　　　　2 / 2 pts

What is not a business integration processes

◉ Prepare data stores

○ Cleanse

○ Conform

○ Transform

○ Consolidate

Question 18   2 / 2 pts

Which of the following are not a data integration business. data & analytical requirement?

⦿ Extraction strategy for each source system

○ Historical & archiving requirements

○ Data latency

○ Tracking changes to data

○ Regulatory compliance

○ Data hub for exchanging data between applications

Question 19   2 / 2 pts

Which one of the following is not a data sourcing system requirement?

⦿ Privacy and security requirements

○ Source system availability

○ Staging area strategy

○ Relational database design standards

Question 20   2 / 2 pts

Data [a] is the process of getting data from source systems and storing it in a DW

Preparation

Question 21

2 / 2 pts

What are valid approached to handling the missing value in a ragged hierarchy

- ☑ default value

- ☑ use value level above the gap

- ☐ create a bridge table

- ☐ use recursion

- ☐ create a mini-dimension

Question 22

2 / 2 pts

Which one of the following is not an attribute needed to support hierarchies in a bridge table

- ◉ effective date

- ○ parent id

- ○ number of levels

- ○ child id

- ○ parent id

Question 23   2 / 2 pts

In what type of specialty dimension is a weighing factor used for analysis?

- ◉ Bridge tables supporting multi-value relationships

- ○ Bridge tables replacing recursive relationships

- ○ Bridge tables connecting primary & profile dimensions

- ○ Value-Band Dimensions

Incorrect

Question 24   0 / 2 pts

In the example, what special types of dimension are the DimPromotion & DimSalesReason tables?

Causal dimension

Question 25   2 / 2 pts

what are approaches to handle multi-valued dimensions

- ☑ Pick one value, ignore others

- ☑ Extend the attributes

- ☑ Create a bridge table

☐ Create a mini-dimension

☐ Use a value-band

☐ Create a ragged hierarchy

Incorrect

Question 26   0 / 2 pts

What type of specialty dimension is used (and pictured here) for reporting and visualizations to group or segment things together for easier analysis?

Question 27   2 / 2 pts

What is the date pair used to support SCD Type 3?

⦿ Current & Historical Dates

○ Effective & Ineffective Dates

○ Created & Modified Dates

○ Start & End Date

Incorrect

Question 28   0 / 2 pts

When the rapidly changing portion of a dimension is split off what is that portion of the dimension called?

| Profiling |

Incorrect

Question 29   0 / 2 pts

This is an example of a financial Chart of Accounts (COA). Based solely on what is depicted in this example what type of hierarchy is it?

| Unbalanced |

Incorrect

Question 30   0 / 2 pts

A SCD Type 7 maintains both a SCD Type 1 table (or view) and a Type 2 table. What is the Type 2 table called?

| Historical tables |

Question 31   2 / 2 pts

Match the slowly changing dimension (SCD) type with one of its key characteristics

Overwrites existing rows to maintain current values	SCD 1 ⌄
Keeps original values	SCD 0 ⌄
Uses both a history table and a current table (or view)	SCD 7 ⌄
Combines SCD types 1, 2 and 3	SCD 6 ⌄
Splits the dimension into rapidly and slowly changing dimensions	SCD 4 ⌄

Question 32   2 / 2 pts

Which of the following is implemented by connecting a fact table with alternate dimension versions, then using one alternative for analysis at query time?

- ◉ Hot-swappable dimension

- ○ Alternate dimension

- ○ Junk dimension

- ○ Role-playing dimension

Question 33   2 / 2 pts

Which of the following types of hierarchies belong to dimensional model?

○ Roll up, drill down, drill across

◉ Balanced, ragged, unbalanced

○ Star, snowflake, multidimensional

○ All of the above

Question 34   2 / 2 pts

What type of attributes does a primary (vs profile or mini-) dimension contain?

◉ Slowly changing dimensions

○ Rapidly changing dimensions

○ Degenerate dimensions

○ Junk dimensions

Incorrect

Question 35   0 / 2 pts

A dimensions, such as the customer dimension in the picture above, has attributes that change slowly and those that change more rapidly. What SCD type handles this situation?

Incorrect

Question 36

0 / 2 pts

What type of schema is depicted in schema?

Snowflake schema

Question 37   2 / 2 pts

The number of students attending a class an example of which type of measure?

- ◉ Semi-Additive fact

- ○ Additive fact

- ○ Non-additive fact

- ○ Surrogate Key

Question 38   2 / 2 pts

What is not a required characteristic of a dimensional attribute?

- ◉ Not Null

- ○ Descriptive

- ○ Complete

- ○ Unique

- ○ Valid

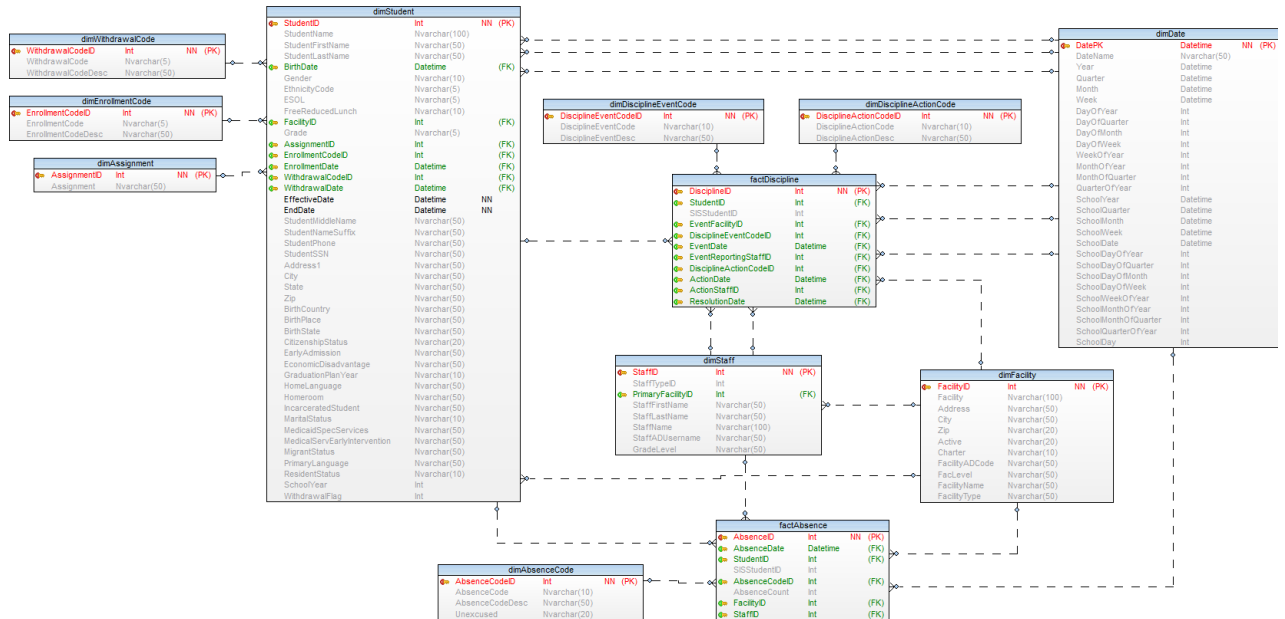## Question 39   2 / 2 pts

The primary keys of entities from a source system should be treated as what in a typical dimensional model? (2 answers)

☑ Natural key

☑ Alternate key

☐ Surrogate key

☐ Primary key

☐ Compound Key

Question 40

2 / 2 pts

What statement about a dimensional hierarchy is false:

◉ Always Constant

○ Used to aggregate data

○ An attribute

○ Always Unique

○ Always Descriptive

Question 41

2 / 2 pts

What table(s) would be a role-playing dimension?

dimDate

Incorrect

Question 42

0 / 2 pts

What is not a characterisitc of a consolidated table

○ Implemented in DW schema

○ Used to simplify reporting

○ Share conformed dimensions

○ Facts have the same grain

◉ Common practice used in spreadsheet reporting

Incorrect

Question 43

0 / 2 pts

The create and modified dates of rows in dimensional tables for a data warehouse are examples of:

- ○ Processing metadata

- ○ Surrogate Keys

- ◉ Measures

- ○ Natural Keys

- ○ Junk IDs

- ○ Alternate Keys

Question 44   2 / 2 pts

Which of these are not a characteristic of an accumulating fact table?

- ◉ Represents a single business event or transaction

- ○ Multiple date dimensions per row.

- ○ Grain is one row per lifetime of an event.

- ○ Numerous events over lifetime.

Incorrect

Question 45   0 / 2 pts

Are surrogate Keys required for all tables in a DW?

◉ True

○ False

Incorrect

Question 46   **0 / 2 pts**

Which level of data model represents the overall structure of data required to support the business requirements independent of any software or data storage structure

○   Physical data model

○   Dimensional data model

◉   Conceptual data model

○   None of the above

Question 47   **2 / 2 pts**

which normal form do you **Eliminate repeating groups**

1NF

Question 48   2 / 2 pts

Which of the following is not the purpose of data modeling?

- ◉ To guide how the data is collected, integrated, enhanced, stored, and delivered to business people who use it to do their jobs

- ○ To build business intelligence (BI) and data warehousing (DW) applications that provides significant business value.

- ○ To transform data into an enterprise information asset that is consistent, comprehensive, and current.

- ○ To transform data from operational or source systems into a data warehouse, data marts, or online analytical processing (OLAP) cubes for analysis.

Question 49   2 / 2 pts

Dependent entities are child records that need a parent record to exist and are considered strong links?

- ○ True

- ◉ False

Question 50   2 / 2 pts

whcih normal form do you **Eliminate non-key interdependencies**

3NF

Quiz Score: **67** out of 100