GATE

DS&AI

Warehousing

Datawarehouse Schema , Measure , Data Smoothing

Q1 Which of the following is the most commonly used schema in data warehousing?
(A) Star Schema
(B) Snowflake Schema
(C) Fact Constellation Schema
(D) Network Schema

Q2 A measure in the context of a data warehouse refers to:
(A) The physical storage of data
(B) The attributes of a fact table
(C) A numeric value that can be aggregated
(D) A key attribute in a dimension table

Q3 In a snowflake schema, the dimension tables are:
(A) Denormalized
(B) Fully normalized
(C) Partially normalized
(D) None of the above

Q4 Which of the following is an example of a dimension table in a data warehouse?
(A) Sales Amount (B) Customer
(C) Quantity Sold (D) Product Sales

Q5 What is the main advantage of using a star schema over a snowflake schema in a data warehouse?
(A) Better performance due to fewer joins
(B) Better data normalization
(C) More complex queries
(D) Better handling of time dimensions

Q6 Data smoothing in data analysis is used to:
(A) Filter out noisy data
(B) Convert unstructured data into structured data
(C) Perform data aggregation
(D) Identify trends in large datasets

Q7 In the context of a data warehouse, which of the following describes a "fact"?
(A) A column containing dimension keys
(B) A numeric measurement or transaction event
(C) A collection of descriptive information
(D) A dimension that helps to filter queries

Q8 Which of the following is a disadvantage of a snowflake schema compared to a star schema?
(A) Higher disk space requirements
(B) Fewer joins are needed for queries
(C) More complex queries due to more joins
(D) Simpler data representation

Q9 Which of the following is an example of a smoothing technique used in time-series data?
(A) Moving average
(B) Data scaling
(C) Data clustering
(D) Data discretization

Q10 In a data warehouse, which of the following is true about fact tables?
(A) They contain descriptive attributes
(B) They store primary keys for dimensions
(C) They store numeric data that can be aggregated
(D) They are usually denormalized

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Answer Key

Q1	(A)	Q6	(A)
Q2	(C)	Q7	(A)
Q3	(B)	Q8	(C)
Q4	(B)	Q9	(A)
Q5	(A)	Q10	(C)

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Hints & Solutions

Q1 Text Solution:
A

Q2 Text Solution:
C

Q3 Text Solution:
B

Q4 Text Solution:
B

Q5 Text Solution:
A

Q6 Text Solution:
A

Q7 Text Solution:
A

Q8 Text Solution:
C

Q9 Text Solution:
A

Q10 Text Solution:
C