Advanced DAX Benchmark Assessment

Review Results

Assessment POWERBI-937102-BENCHMARK

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Attempt:	1

Question Topic	Num	Question	
		Respondent's Answer	Correct Answer

The DAX Engines

Earned 1 of 1 points (100%).

1. Which of the following encoding methods uses a mathematical process to reduce the number of bits needed to store an integer value?

Respondent's Answer	Correct Answer
( ) Hash Encoding	( ) Hash Encoding
( ) Run Length Encoding	( ) Run Length Encoding
( ) Algorithmic Encoding	( ) Algorithmic Encoding
(X) Value Encoding	(X) Value Encoding
( ) I don't know yet	( ) I don't know yet

Explanation: Value encoding is a VertiPaq compression and encoding method that uses a mathematical process to reduce the number of bits needed to store integer values

Related Lecture: Value Encoding

Tips & Best Practices

Earned 1 of 1 points (100%).

2. Which of the following statements is not true about DAX variables (VAR)

Respondent's Answer	Correct Answer
( ) Variable help simplify and streamline DAX code	( ) Variable help simplify and streamline DAX code
( ) Variables make more complex DAX code easier to read	( ) Variables make more complex DAX code easier to read
(X) Variables are portable and can be used across multiple queries	(X) Variables are portable and can be used across multiple queries
( ) Variables are only evaluated once no matter how often they're used in a query	( ) Variables are only evaluated once no matter how often they're used in a query
( ) I don't know yet	( ) I don't know yet

Explanation: Variables in DAX can only be accessed, or referenced, in the query in which they are declared. A variable created in a [Revenue] measures couldn't be accessed in a [Profit] measure

Related Lecture: Creating & Using Variables

Scalar Functions

Earned 1 of 2 points (50%).

3. A SUM function is internally evaluated by the DAX engines as

( ) SUMX
( ) SUM
(X) SUMMARIZE
( ) CALCULATE(SUM)
( ) I don't know yet

(X) SUMX
( ) SUM
( ) SUMMARIZE
( ) CALCULATE(SUM)
( ) I don't know yet

Explanation: Internally, SUM is interpreted as SUMX which provides the table and column reference, or expression, to be summed

Related Lecture: PRO TIP: SUM & SUMX

4. Which of the follows DAX expressions can be used to replace multiple nested IF statements?

( ) SWITCH
(X) SWITCH(TRUE)
( ) IFS
( ) CASE(WHEN)
( ) I don't know yet

( ) SWITCH
(X) SWITCH(TRUE)
( ) IFS
( ) CASE(WHEN)
( ) I don't know yet

Explanation: By adding TRUE to the SWITCH function, you can replace the need for multiple nested IF statements

Related Lecture: Logical Functions: SWITCH

Advanced CALCULATE

Earned 2 of 3 points (67%).

5. REMOVEFILTERS is an alias for which of the following functions?

( ) FILTER
(X) ALL
( ) FILTERS
( ) CLEARFILTERS
( ) I don't know yet

( ) FILTER
(X) ALL
( ) FILTERS
( ) CLEARFILTERS
( ) I don't know yet

Explanation: REMOVEFILTERS is an alias for ALL, but can only be used as a CALCULATE modifier

Related Lecture: REMOVEFILTERS

6. Which of the following statements is true about expanded tables?

( ) They only exist in data models with one-to-one relationships
( ) They only exist in data models with many-to-many relationships
( ) They always start from the one side of a relationship and extend to the many side
(X) They always start from the many side of a relationship and extend to the one side
( ) I don't know yet

( ) They only exist in data models with one-to-one relationships
( ) They only exist in data models with many-to-many relationships
( ) They always start from the one side of a relationship and extend to the many side
(X) They always start from the many side of a relationship and extend to the one side
( ) I don't know yet

Explanation: An expanded table consists of the base table, along with columns from any related table connected on the one-side of a relationship

Related Lecture: Expanded Tables

7. Which of the following is the process of turning row context into filter context?

( ) Context Transition
( ) Filter Transition
(X) Filter Context
( ) Row Context
( ) I don't know yet

(X) Context Transition
( ) Filter Transition
( ) Filter Context
( ) Row Context
( ) I don't know yet

Explanation: Context transition is the process of turning row context into filter context

Related Lecture: Context Transition

Table & Filter Functions

Earned 1 of 3 points (33%).

8. Which of the following DAX functions will return a blank row when you are looking up distinct values from a related table, but a value used in the relationship is missing from one table?

(X) VALUES	(X) VALUES
( ) DISTINCT	( ) DISTINCT
( ) DISTINCTVALUES	( ) DISTINCTVALUES
( ) FILTER	( ) FILTER
( ) I don't know yet	( ) I don't know yet

Explanation: VALUES will return a blank row, instead of throwing an error, when a value is missing from a lookup table

Related Lecture: VALUES

9. Which of the following DAX functions would you use when you want to return a table instead of a scalar value?

(X) SUMX	( ) SUMX
( ) DISTINCT	(X) DISTINCT
( ) DISTINCTCOUNT	( ) DISTINCTCOUNT
( ) AVERAGE	( ) AVERAGE
( ) I don't know yet	( ) I don't know yet

Explanation: DISTINCT is a table function that will either return a single column table or a multi-column table based on the parameters supplied to the function

Related Lecture: DISTINCT

10. Which of the following methods would you use to manufacture data from scratch?

( ) ROW	( ) ROW
(X) DATATABLE	( ) DATATABLE
( ) { }	( ) { }
( ) All of the above	(X) All of the above
( ) I don't know yet	( ) I don't know yet

Explanation: There are four main ways to generate data from scratch using DAX. ROW, DATATABLE, GENERATESERIES, and Table Constructors { }

Related Lecture: Generating Data

Calculated Table Joins

Earned 1 of 1 points (100%).

11. Which of the following DAX functions works just like Query Editor append transformation?

( ) CROSSJOIN	( ) CROSSJOIN
( ) EXCEPT	( ) EXCEPT
(X) UNION	(X) UNION
( ) INTERSECT	( ) INTERSECT
( ) I don't know yet	( ) I don't know yet

Explanation: UNION stacks tables together, just like append in the query editor

Related Lecture: UNION

Relationship Functions

Earned 3 of 4 points (75%).

12. Which of the following CALCULATE modifiers allows you to change filter propagation for the duration of a calculation?

( ) USERELATIONSHIP
( ) KEEPFILTERS
(X) CROSSFILTER
( ) REMOVEFILTERS
( ) I don't know yet

( ) USERELATIONSHIP
( ) KEEPFILTERS
(X) CROSSFILTER
( ) REMOVEFILTERS
( ) I don't know yet

Explanation: CROSSFILTER allows you change the way filters flow (one-way or bidirectional) for the duration of a calculation

Related Lecture: CROSSFILTER

13. Which of the following DAX functions allows you to access, and use, inactive relationships in your data model?

( ) CROSSFILTER
(X) USERELATIONSHIP
( ) FILTER
( ) CROSSJOIN
( ) I don't know yet

( ) CROSSFILTER
(X) USERELATIONSHIP
( ) FILTER
( ) CROSSJOIN
( ) I don't know yet

Explanation: USERELATIONSHIP allows you to use inactive relationships in your data model. Commonly this function is used when multiple date fields are connected to a single calendar lookup table

Related Lecture: USERELATIONSHIP

14. Which of the following represents the two key types of table relationships in a Power BI data model?

(X) Active & Inactive
( ) Primary & Secondary
( ) Direct & Indirect
( ) Physical & Virtual
( ) I don't know yet

( ) Active & Inactive
( ) Primary & Secondary
( ) Direct & Indirect
(X) Physical & Virtual
( ) I don't know yet

Explanation: There are two key types of table relationships in Power BI: Physical and Virtual. Physical relationships are manually created, and visible in your data model. Physical relationships can be either active or inactive. They other type of relationship is Virtual relationships which are temporary relationships defined using DAX expressions

Related Lecture: Physical vs. Virtual Relationships

15. Suppose you want to return a table of data that is filtered to contain only related rows. What DAX expression would help you accomplish this?

(X) RELATEDTABLE
( ) RELATED
( ) CROSSJOIN
( ) CALCULATE
( ) I don't know yet

(X) RELATEDTABLE
( ) RELATED
( ) CROSSJOIN
( ) CALCULATE
( ) I don't know yet

Explanation: RELATEDTABLE allows you to return a related table that is filtered to only include the related rows that satisfy the filter condition(s)

Related Lecture: RELATEDTABLE

Iterator Functions

Earned 0 of 1 points (0%).

16. Which of the following DAX functions allows you to loop through the same expression on every row of a table in order to evaluate a single value or derive a new table?

(X) FILTER
( ) SUMX
( ) RANKX
( ) All of the above
( ) I don't know yet

( ) FILTER
( ) SUMX
( ) RANKX
(X) All of the above
( ) I don't know yet

Explanation: FILTER, SUMX, and RANKX are all examples of iterator functions that loop through the same expression on every row of a table

Related Lecture: Review: Basic Iterators

Advanced Time Intelligence

Earned 3 of 3 points (100%).

17. Which of the following DAX functions would you use to specify date/time formatting?

( ) FIXED
( ) CONVERT
(X) FORMAT
( ) None of the above
( ) I don't know yet

( ) FIXED
( ) CONVERT
(X) FORMAT
( ) None of the above
( ) I don't know yet

Explanation: The FORMAT function allows you to convert a value to text in a specified format (i.e. "dddd", "mmm", "yyyy")

Related Lecture: Date Formatting

18. Which of the following is not a requirement of a date table?

( ) Date tables must contain all the days for all the years represented in the fact table(s)
( ) Date tables must contain at least one field set as a Date or DateTime data type
( ) Date tables should not contain duplicate date or datetime values
(X) Date tables must always start on January 1st
( ) I don't know yet

( ) Date tables must contain all the days for all the years represented in the fact table(s)
( ) Date tables must contain at least one field set as a Date or DateTime data type
( ) Date tables should not contain duplicate date or datetime values
(X) Date tables must always start on January 1st
( ) I don't know yet

Explanation: If you import or create a date table in Power BI it must contain all of the days for all of the years represented in your fact tables, must have at least one field set as a Data or DateTime data type, cannot contain duplicate date or datetime values, and if using a time component within a date column, all times must be identical (i.e. 12:00)

Related Lecture: Date Table Requirements

19. Which of the following DAX functions is commonly used to calculate running totals or moving averages?

(X) DATESINPERIOD
( ) DATEADD
( ) PARALLELPERIOD
( ) DATESBETWEEN
( ) I don't know yet

(X) DATESINPERIOD
( ) DATEADD
( ) PARALLELPERIOD
( ) DATESBETWEEN
( ) I don't know yet

Explanation: DATESINPERIOD is commonly used to calculate running totals and moving averages

Related Lecture: Common Time Intelligence Functions

Performance Tuning

Earned 1 of 1 points (100%).

20. Which of the following tools lets you troubleshoot issues with measure load times and other DAX queries?

( ) Performance Optimizer
(X) Performance Analyzer
( ) VertiPaq Analyzer
( ) DAX Optimizer
( ) I don't know yet

( ) Performance Optimizer
(X) Performance Analyzer
( ) VertiPaq Analyzer
( ) DAX Optimizer
( ) I don't know yet

Explanation: The Performance analyzer is a native tool within Power BI that provides insight in the performance of DAX queries, visual load times, and other components

Related Lecture: Performance Analyzer

Time Used: 00:15:26 **Final Score:** **70%**