Course Assessment Test

Course Title	Google BigQuery for Big Data Analytics	**Date**	May 2025
Name		**Dept**	

1) *This assessment test is to be given out before course commencement. Answers are to be filled in column entitled "Pre-Course Answer"*
2) *At the end of the course, the same assessment sheet is to be given out where answers are to be filled in column entitled "Post-Course Answer". Instructor will then share the answers and participants need to total the score in both "Pre" and "Post" columns through self-marking.*
3) *Assessment sheets will be collected for filling.*

No	Question	Pre-Course Answer	Post-Course Answer
1	Google BigQuery is an example of a: a) Spreadsheet tool b) Cloud based data warehouse c) Data analytic programming language d) Data visualization tool		B
2	Identify the main categories of language statements available in SQL i. Data Definition Language (DDL) ii. Data Manipulation Language (DML) iii. Data Control Language (DCL) iv. Data Visualization Language (DVL) a) Categories i), ii) and iii) b) Categories i), iii) and iv) c) Categories ii), iii) and iv) d) All categories		A
3	Which of the following correctly identifies the BigQuery resource hierarchy moving from top to bottom? a) Project -> Organization -> Table -> Dataset b) Project -> Organization -> Dataset -> Tabe		C

	c) Organization -> Project -> Dataset -> Table d) Organization -> Project -> Table -> Dataset		
4	Which statement below most accurately describes the purpose of a table schema in BigQuery? a) Provides listing of all the relationships of that table to other tables within a database b) Identifies the most relevant columns in that table which are typically targeted by SQL queries c) Provides indexing to allow queries on primary keys to complete efficiently d) Describes columns names, data types and other metadata pertaining to the table		D
	Consider a table in BigQuery with the following columns and data types representing orders made by customers over 3 years: 2023, 2024 and 2025. • CustID (INTEGER) • Date (DATE) -> YYYY-MM-DD format • FirstName (STRING) • LastName (STRING) • Region (STRING) • State (STRING) • ProdCategory (STRING) • Price (FLOAT) • Units (INTEGER) The remaining questions regarding GoogleSQL query statements are based on this table		

5	Which statement provides the total number of unique values for the Region column?
	
	a) SELECT COUNT(UNIQUE Region) AS Total_Regions FROM table;
	
	b) SELECT TABULATE(UNIQUE Region) AS Total_Regions FROM table;
	
	c) SELECT COUNT(DISTINCT Region) AS Total_Regions FROM table;
	
	d) SELECT TOTAL(DISTINCT Region) AS Total_Regions FROM table;
			C

6	Which statement identifies the top 5 sales transactions from the Northern Region based on the number of units? a) SELECT * FROM table WHERE Region = 'Northern' ORDER BY Units DESC LIMIT 5; b) SELECT * FROM table TOP 5 WHERE Region IS 'Northern' with DESC ORDER FOR Units; c) SELECT * FROM table TOP 5 WHERE Region = 'Northern' with Units Default		A

	ORDER; d) SELECT * FROM table LIMIT 5 WHERE Region = 'Northern' with DESC ORDER FOR Units;		
7	Which statement locates the order with the lowest number of units in the year 2024? a) SELECT Lowest(Units) AS SmallestOrder FROM table WHERE DATE IN '2024-XX-XX'; b) SELECT Min(Units) FROM table WHERE DATE BETWEEN '2024-01-01' AND '2025-01-01'; c) SELECT Min(Units) FROM table WHERE DATE RANGE IS FROM '2024-01-01' TO '2025-01-01'; d) SELECT Smallest(Units) FROM table RANGING('2024-01-01', '2025-01-01');		B

8	Which statement locates the orders with the highest price in each state?
	
	a) SELECT TOP(Price) AS HighestPrice FROM table FOR EACH State;
	
	b) SELECT MAX(Price) FROM table FOR EACH UNIQUE State;
	
	c) SELECT FOR EACH State, MAX(Price) FROM table;
	
	d) SELECT State, MAX(Price) FROM table GROUP BY State;
			D

9	Which statement provides the total number of units sold for every single possible combination of values from the Region and State columns?
	
	a) SELECT Region, State, TOTAL(Units) FROM table UNIQUE COMBINE(Region, State);
	
	b) SELECT Region, State, TOTAL(Units) FROM table MIX(Region, State);
	
	c) SELECT Region, State, SUM(Units) FROM table GROUP BY CUBE(Region, State);
	
	d) SELECT Region, State, TOTAL(Units) FROM table GROUP COMPLETE(Region, State);
			C

10	Assume that some of the rows have a missing value in the Price column of the table due to typo errors during data entry. Which statement would list all the rows that have valid (no missing) values in their Price coumn? a) SELECT * FROM table WHERE Price IS AVAILABLE; b) SELECT * FROM table WHERE Price IS NOT NULL;		B

	c) SELECT * FROM table WHERE Price >= 0; d) SELECT * FROM table WHERE Price IS VALID;		
Total			