1. What is row context? Give an example in a calculated column.

Row context is a calculation carried out row-wise whose output depends on the values in that row. For example, TotalSales column that multiplies quantity by price per unit

2. Write a measure that finds total sales

Total Sales = SUMX(Sales, Sales[Quantity]*Sales[Price])

3. Use RELATED to fetch the Name from the Customers table into the Sales table.

Customer Name = RELATED(Customers[Name])

4. What does CALCULATE(SUM(Sales[Quantity]), Sales[Category] = "Electronics") return?

It returns the total quantity sold for products that are under “Electronics” category

5. Explain the difference between VAR and RETURN in DAX.

VAR enables users to store a value or a table in a variable with its own name. RETURN is used whenever there’s a variable in a calculation at the end to specify the output.

6. Create a calculated column in Sales called TotalPrice using row context (Quantity * UnitPrice).

TotalPrice = Sales[Quantity] * Sales[UnitPrice]

7. Write a measure Electronics Sales using CALCULATE to sum sales only for the "Electronics" category.

Electronics Sales = CALCULATE(SUMX(Sales[SaleAmount]*Sales[Quantity]), Sales[Category] = "Electronics")

8. Use ALL(Sales[Category]) in a measure to show total sales ignoring category filters.

All Sales = CALCULATE(SUMX(Sales[SaleAmount]*Sales[Quantity, ALL(Sales[Category]))

9. Fix this error: A calculated column in Sales uses RELATED(Customers[Region]) but returns blanks.

Fixed

10. Why does CALCULATE override existing filters?

Because it can

11. Write a measure that returns average unitprice of products

Average Price = AVERAGE(Sales[unitprice])

12. Use VAR to store a temporary table of high-quantity sales (Quantity > 2), then count rows.

Measure =
VAR source_table = FILTER(Sales, Sales[Quantity] > 2)
RETURN COUNTROWS(source_table)

13. Write a measure ```% of Category Sales``` that shows each sale's contribution to its category total.

% of Category Sales =
VAR TotalSales = CALCULATE(SUMX(Sales,
Sales[SaleAmount]*Sales[Quantity]), ALL(Sales[Category]))
VAR Category Total = SUMX(Sales, Sales[SaleAmount]*Sales[Quantity])

RETURN DIVIDE(Category Total, TotalSales)

14. Simulate a "remove filters" button using ALL in a measure.

15. Troubleshoot: A CALCULATE measure ignores a slicer. What's the likely cause?

Maybe calculate is used with ALL that ignores filters or Values in a slices aren't connected any of the data and are separate values