Q1. What does FILTER(Sales, Sales[Amount] > 1000) return?

It returns a table containing only the rows from Sales where Amount > 1000.

Q2. Write a measure High Sales that sums Amount where Amount > 1000 using FILTER.

```
High Sales =
CALCULATE(
   SUM(Sales[Amount]),
   FILTER(Sales, Sales[Amount] > 1000)
)
```

Q3. How does ALLEXCEPT(Sales, Sales[Region]) differ from ALL(Sales)?

ALL(Sales) removes all filters from the Sales table.

ALLEXCEPT(Sales, Sales[Region]) removes all filters except Region.

Q4. Use SWITCH to categorize Amount.

```
Category =
SWITCH(
   TRUE(),
   Sales[Amount] > 1000, "High",
   Sales[Amount] >= 500 && Sales[Amount] <= 1000, "Medium",
   "Low"
)
```

Q5. What is the purpose of ALLSELECTED?

ALLSELECTED returns all rows visible after slicer selections but ignores filters applied directly in the visual. Useful for percentage calculations relative to slicers.

Q6. Write a measure Regional Sales % showing each sale's contribution to its region's total.

```
Regional Sales % =
DIVIDE(
   SUM(Sales[Amount]),
   CALCULATE(SUM(Sales[Amount]), ALLEXCEPT(Sales, Sales[Region]))
)
```

Q7. Create a dynamic measure using SWITCH to toggle between SUM, AVERAGE, and COUNT of Amount.

```
Dynamic Measure =
SWITCH(
   SELECTEDVALUE(Metrics[Metric]),
   "SUM", SUM(Sales[Amount]),
   "AVERAGE", AVERAGE(Sales[Amount]),
   "COUNT", COUNT(Sales[Amount])
)
```

Q8. Use FILTER inside CALCULATE to exclude "Furniture" sales.

```
Exclude Furniture Sales =
CALCULATE(
   SUM(Sales[Amount]),
   FILTER(Products, Products[Category] <> "Furniture")
)
```

Q9. Why might ALLSELECTED behave unexpectedly in a pivot table?

Because ALLSELECTED depends on slicers and filters applied outside the visual.
In a pivot table, visual-level filters may override slicer context, causing unexpected results.

Q10. Write a measure that calculates total sales and ignores filters from Region.

```
Total Sales Ignore Region =
CALCULATE(SUM(Sales[Amount]), ALL(Sales[Region]))
```

Q11. Optimize High Sales measure.

Instead of using FILTER, use a Boolean expression:

```
High Sales Optimized =
CALCULATE(
   SUM(Sales[Amount]),
   Sales[Amount] > 1000
)
```

Q12. Write a measure Top 2 Products using TOPN and FILTER.

```
Top 2 Products =
CALCULATE(
   SUM(Sales[Amount]),
   FILTER(
      TOPN(
         2,
         SUMMARIZE(Sales, Sales[ProductID], "TotalSales", SUM(Sales[Amount])),
         [TotalSales], DESC
      ),
      TRUE()
   )
)
```

Q13. Use ALLSELECTED with no parameters to respect slicers but ignore visual-level filters.

```
Measure Example =
CALCULATE(
   SUM(Sales[Amount]),
   ALLSELECTED()
)
```

Q14. Debug: A SWITCH measure returns incorrect values when fields are added to a matrix visual.

This happens because SWITCH evaluates row context differently in a matrix.
Fix: use SELECTEDVALUE or adjust the logic to handle multiple values.

Q15. Simulate a "reset filters" button using ALL in a measure.

```
Reset Filters Sales =
CALCULATE(SUM(Sales[Amount]), ALL(Sales))
```