**ORMULAS**

**Note :- whenever u want to calculate anything,always use the sumx as beginning.**

1) Total revenue = SUMX(Sales,Sales[Unit Price]\*Sales[Quantity])

2) Running price = base value :-unit price

Field : Year

3) Create a new column :- (if u want to create column in date )

----- Qtr=quarter(‘date’[date]

* Qtr :-column name
* Quarter : output

4) If you want year and month combine like 2014-jan

(write a column name)= FORMAT([Date],"YYYY-MMM")

**Exercise :-**

🔹 NEW COLUMNS (Calculated Columns) – 5 Questions

1. Calculate Sales Value

Create a new column in the sales table that calculates Sales Amount = Quantity \* Unit Price.

ANS :- sales amt = Sales[Quantity]\*Sales[Unit Price]

1. Calculate Profit per Unit

Create a new column that calculates profit per unit as

(Unit Price – Cost)

ANS :- Profit per unit = Sales[Unit Price]-Sales[Cost]

1. Year-Month Format

In the date table, create a new column in the (=format YYYY-MM), combining Year and Month Number.

ANS :- year and month = FORMAT([DATE],"YYYY-MMM")

4)Product Profit Category

In the product table, create a column:

If Standard Cost > 1000 → “High Cost”

Else → “Low Cost”

ANS :- Profit category = IF([Standard Cost]>1000,"High-cost","low -cost")

5)Employee Short Name

In the salesperson table, extract the first name from the Salesperson full name column.

ANS :--- go to home--transform data--select salesperson column--ad columns--extract--give space--ok--close and aply--edit column name as short name.

\*\*\*🔹 **NEW MEASURES** – 7 Questions

Defination :- When you need to calculate the total of something on a per unit basis, like per unit sales or per unit profit, you use a **New Measure**.

-- A New Measure calculates dynamic values that change based on the context of the data (such as filters, slicers, etc.). For example, if you need to calculate "Total Sales per Unit," you can create a measure for that.

1. Total Sales Amount

Create a measure to calculate the total sales amount (Quantity \* Unit Price).

Ans :- Total sales amt = SUMX(Sales,Sales[Quantity]\*(Sales[Unit Price]))

2)Total Profit

Create a measure to calculate total profit ((Unit Price - Cost) \* Quantity).

ANS :- Total Profit = SUMX(Sales,Sales[Unit Price]-Sales[Cost]\*Sales[Quantity])

Average Unit Price

Create a measure to calculate the average unit price of all sales.

ANS :- Avg. Unit price = AVERAGE(Sales[Unit Price])

Sales Count by Region

Create a measure to count the number of sales per region (join sales and region table).

ANS :- Sales by Region = COUNTROWS(Sales)

Max Sales Date

Create a measure to show the most recent sales order date.

ANS :-Max sales date = MAX(Sales[OrderDate])

YTD Sales

Create a measure to calculate Year-To-Date Sales using the OrderDate.

ANS :- Year to date sale = TOTALYTD(Sales[Total sales amt],Sales[OrderDate])

Sales Target Met?

Create a measure that returns "Target Met" if total sales > 500,000; else "Below Target".

ANS :Sales Target Met? = IF(Sales[Total sales amt]>500000,"Target met","Below target")

🔹 **NEW TABLES (Calculated Tables) – 4 Questions**

**Defination** :- A Date Table keeps your data model smart, complete, and allows you to use powerful time-based DAX easily.

Unique Product List Sold

Create a calculated table that lists only products that have been sold at least once.

Employee Sales Summary

Create a new table with EmployeeKey, Total Sales Amount, and Total Quantity Sold.

Region-wise Profit Table

Create a table with Region, Total Profit, and Average Profit per Sale.

Sales by Category Table

Create a table with Product Category, Subcategory, and their total sales.

🔹 QUICK MEASURES (using Power BI’s quick measure option) – 4 Questions

Running Total of Sales

Create a quick measure for running total of Sales Amount over OrderDate.

Sales % of Total

Use a quick measure to show each product's sales as a % of total sales.

Year-over-Year Growth

Create a quick measure that calculates Year-over-Year growth in sales.

Top N Products by Sales

Create a quick measure to show top 5 products based on total sales amount.