sale_demand - Questions

Q1. In the Sales & Demand Planning pipeline, what is the primary goal of the SEE phase on the weekly sales data?

A. Generate a 3-week moving average forecast for each SKU.
B. Decide the final replenishment quantity to order.
C. Detect structural and value issues such as missing weeks, wrong dtypes, duplicates, and anomalies.
D. Optimize transport routes between warehouses.

Correct answer: C. Detect structural and value issues such as missing weeks, wrong dtypes, duplicates, and anomalies.

Q2. Why do we group by (SKU, Week_dt) and aggregate Sales_Units, Is_Promo, and Price before reindexing to the full weekly calendar?

A. To collapse multiple rows for the same SKU and week into a single, consistent demand signal.
B. To artificially increase the number of records for better model training.
C. To remove all promo weeks from the dataset.
D. To ensure every SKU has exactly the same mean sales.

Correct answer: A. To collapse multiple rows for the same SKU and week into a single, consistent demand signal.

Q3. For a given SKU, average Sales_Units are 100 on non-promo weeks and 140 on promo weeks. What is the promo uplift (%)?

A. 28%
B. 35%
C. 40%
D. 70%

Correct answer: C. 40%

Q4. What is the main difference between MAPE and Forecast Bias when evaluating the moving average forecast?

A. MAPE measures only over-forecasting, while Bias measures only under-forecasting.
B. MAPE is computed in units, while Bias is computed in percentages.
C. They are the same metric with different names.
D. MAPE measures average percentage error magnitude, while Bias measures systematic over- or under-forecasting.

Correct answer: D. MAPE measures average percentage error magnitude, while Bias measures systematic over- or under-forecasting.

Q5. In our simple replenishment logic, Safety_Stock = z · weekly_std. Which change will most directly reduce the safety stock requirement for a SKU?

A. Increasing the 3-week moving average forecast.
B. Reducing the weekly demand variability (lower weekly_std).
C. Shortening the historical time window from 26 to 4 weeks.
D. Increasing the promotion frequency.

Correct answer: B. Reducing the weekly demand variability (lower weekly_std).