warehouse_operation - Questions

Q1. Two warehouses process exactly 120 customer orders in a day.

Warehouse A processes 240 picks.

Warehouse B processes 960 picks.

According to the warehouse analytics logic used in the notebook, which statement is correct?

A. Both warehouses require similar staffing because the number of orders is the same
B. Warehouse B requires significantly more labor because picks drive workload
C. Warehouse A is less efficient because it has fewer picks per order
D. The difference is irrelevant because throughput depends only on orders

Correct answer: B. Warehouse B requires significantly more labor because picks drive workload

Q2. In the warehouse dashboard, pick rate remains stable across two days, but utilization increases sharply on Day 2.

Which explanation is most consistent with the analytics logic used?

A. Workers became less productive on Day 2
B. Arrival rate increased, creating higher workload pressure
C. Inventory levels were lower on Day 2
D. Cycle time increased first, causing utilization to rise

Correct answer: B. Arrival rate increased, creating higher workload pressure

Q3. In the notebook, average cycle time increases sharply even though the number of orders does not rise significantly.

Which explanation best fits the warehouse execution logic?

A. Congestion reduced effective pick rate, increasing processing time
B. Safety stock levels were insufficient
C. Forecast error increased demand variability
D. Orders were prioritized differently

Correct answer: A. Congestion reduced effective pick rate, increasing processing time

Q4. According to Littles Law as applied in the warehouse notebook, what happens if throughput remains constant while WIP increases?

A. Cycle time decreases
B. Cycle time increases
C. Cycle time remains unchanged

D. Utilization becomes irrelevant

Correct answer: B. Cycle time increases

Q5. In the prescriptive analysis, the raw staffing requirement increases gradually, but the rounded staffing decision remains unchanged for several days.

What is the correct managerial interpretation?

A. Rounding hides pressure until a decision threshold is crossed
B. The model is insensitive to demand changes
C. Staffing should always follow raw values exactly
D. Congestion effects are not relevant

Correct answer: A. Rounding hides pressure until a decision threshold is crossed