Chapter 01: Section 2

Strategic Management Accounting Techniques: Questions

Kaizen Costing

Practice Question 11:

BlueGem Textiles has a standard material cost of Rs. 800 per unit for its Premium Shirt line. The production department, which produces 10,000 units per month, has a baseline monthly material cost of Rs. 8,000,000. Management sets a Kaizen cost reduction target of 2% for the upcoming month. The production team implements a process change that reduces fabric waste, resulting in an actual material cost of Rs. 7,820,000 for the month. Calculate the target cost, the actual cost reduction achieved, and the variance against the target.

Learning Curve

Practice Question 12:

BlueGem Textiles has received an order for a new line of intricately embroidered formal jackets that require a complex hand-finishing process. The time taken to produce the first jacket is 100 hours. The company expects an 80% learning curve to apply for the first 8 units as workers become familiar with the new design. The standard labour rate is Rs. 950 per hour. Calculate:

1. The learning index (b).
2. The cumulative average time per unit for 8 units.
3. The total time and total labour cost to produce all 8 units.
4. The time and labour cost for the last 4 units (units 5-8).

Practice Question 13:

SilverLine Furniture has received a special order for a new design of handcrafted wooden chairs that require detailed manual carving. The time taken to produce the first chair is 120 hours. Based on past experience, the company expects a 75% learning curve to apply for the first **16 units** as workers gain efficiency with the new design. The standard labour rate is Rs. 1,000 per hour. Calculate:

1. The learning index (b).
2. The cumulative average time per unit for **16 units**.
3. The total time and total labour cost to produce all **16 units**.

4. The time and labour cost for the last **8 units (units 9–16)**.

JIT Inventory Management

Practice Question 14:

Palmnest Foods uses a specific packaging component in its beverage bottling line with an average daily demand of 200 units. The lead time to replenish the component from the central store is 0.5 days. Management has set a safety factor of 10% (0.10) to account for variability in production schedules. The components are moved in containers that hold 25 units each. Calculate the required number of Kanban cards (and containers) for this component.

Practice Question 15:

BlueGem Textiles operates its main garment assembly line for one 8-hour shift per day. During this shift, there are two 15-minute breaks and a 30-minute lunch break. The daily customer demand for a particular shirt style is 420 units. Calculate the Takt Time in minutes and seconds.

Practice Question 16:

Mango Holdings is analysing the resilience of two of its subsidiaries during an economic downturn. Both subsidiaries generate revenue of Rs. 2,000 per unit of output (a construction project milestone for Lotus Construction and a campaign deliverable for Citrus Advertising).

- **Lotus Construction:** Has high fixed costs of Rs. 8,000,000 per month (heavy equipment depreciation, site facilities, permanent engineering staff) and low variable costs of Rs. 400 per unit.
- **Citrus Advertising:** Has low fixed costs of Rs. 3,000,000 per month (office lease, core management team) and higher variable costs of Rs. 1,000 per unit (freelance creatives, media buying commissions).

Calculate the break-even point for each subsidiary. Then, calculate the profit or loss for each if output falls to 4,000 units during a recession.