Cost Accounting

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1. Define cost accounting and explain its purpose in business.

Cost accounting is the process of classifying, recording, allocating, and analyzing expenditures to determine the cost of products, processes, departments, services, or operations. It emerged because financial accounting alone is limited for internal planning needs. Its purpose is to provide management with decision-grade cost information for planning, pricing, cost control, and performance evaluation so the business can operate efficiently at the lowest sustainable cost.

2. Three key differences between cost and financial accounting.

Cost Accounting	**Financial Accounting**
Ascertains the cost of goods/services by product, job, process, or department for internal management.	Reports the overall financial performance and position for internal *and* external users.
Uses cost sheets; classifies by material, labour, and overhead and by cost behaviour; supports standard costing and variance analysis for control.	Records actual transactions in debit/credit terms; focuses on formal statements (Trading A/c, P&L, Balance Sheet).
Reported at intervals as needed for managerial control (not bound by statute).	Typically prepared annually/quarterly; subject to statutory and audit requirements; not primarily a control device.

3. Three main elements of cost (with examples).

- **Direct Materials:** Materials directly attributable to the cost unit. *Example:* raw steel used in fabrication.
- **Direct Labour:** Wages of workers directly identified with the cost centre. *Example:* assembly-line operators.
- **Overheads (Indirect Costs):** Indirect materials, labour, and expenses not traceable per unit. *Examples:* factory rent, machine depreciation, utilities.

4. Break-Even Point (BEP) and its significance.

The break-even point is the sales level where total revenue equals total cost (no profit, no loss). It indicates the minimum activity level to avoid losses and informs pricing, capacity, and risk decisions. With selling price per unit p, variable cost per unit v, and fixed cost F:

$$\text{UCM} = p - v, \qquad Q_{\text{BEP}} = \frac{F}{\text{UCM}}, \qquad \text{CM ratio} = \frac{\text{UCM}}{p}, \qquad \text{BEP}_{\$} = \frac{F}{\text{CM ratio}}.$$

5. How cost accounting helps in cost control and reduction.

Through systematic records and analysis— including budgetary control, standard costing, variance analysis, and break-even analysis— management can compare actual versus expected performance, spotlight inefficiencies, optimize resource use, and reduce costs.

6. Numerical Computations.

Given: Fixed Costs $F = \$50{,}000$, Variable Cost per Unit $v = \$30$, Selling Price per Unit $p = \$80$.

(a) Unit Contribution Margin (UCM)

$$\text{UCM} = p - v = 80 - 30 = \$50.$$

(b) BEP in units

$$Q_{\text{BEP}} = \frac{F}{\text{UCM}} = \frac{50{,}000}{50} = 1{,}000 \text{ units}.$$

(c) BEP in dollars

$$\text{CM ratio} = \frac{\text{UCM}}{p} = \frac{50}{80} = 0.625, \qquad \text{BEP}_{\$} = \frac{F}{\text{CM ratio}} = \frac{50{,}000}{0.625} = \$80{,}000.$$

(d) Units for a $20,000 target profit

$$Q_{\text{target}} = \frac{F + \text{Profit}}{\text{UCM}} = \frac{50{,}000 + 20{,}000}{50} = \frac{70{,}000}{50} = 1{,}400 \text{ units}.$$