BUS Theory

Chapter – 1

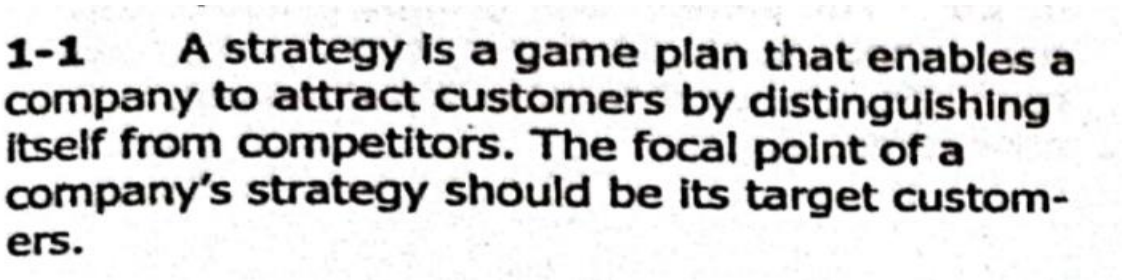
1. **What is Accounting?**
   Accounting is the language of business. It is an information system that identifies, records and communicates the economic events of an organization to interested users.
   Accounting is the process of recording financial transactions pertaining to a business. The accounting process includes summarizing, analyzing and reporting these transactions to oversight agencies, regulators, and tax collection entities.

2. **Business Enterprises**
   Types of business enterprises:

a) Proprietorship
   i) Owned by one person
b) Partnership
   i) Owned by two or more persons (2-20)
c) Corporation
   i) Organized as a separate legal entity under state corporation law and having ownership divided into transferable shares of stock. (1994 companies act)

Question answer:

1) What is meant by a business strategy?
   Ans:


1-1 A strategy is a game plan that enables a company to attract customers by distinguishing itself from competitors. The focal point of a company's strategy should be its target customers.

2) Describe the three broad categories of customer value propositions.

Ans:

1-2 Customer value propositions fall into three broad categories—customer intimacy, operational excellence, and product leadership. A company with a customer intimacy strategy attempts to better understand and respond to its customers' individual needs than its competitors. A company that adopts an operational excellence strategy attempts to deliver products faster, more conveniently, and at a lower price than its competitors. A company that has a product leadership strategy attempts to offer higher quality products than its competitors.

3) Distinguish between line and staff positions in an organization.

Ans:

1-3 A person in a line position is directly involved in achieving the basic objectives of the organization. A person in a staff position provides services and assistance to other parts of the organization, but is not directly involved in achieving the basic objectives of the organization.

4) Describe the basic responsibilities of the Chief Financial Officer.

Ans:

1-4 The Chief Financial Officer is responsible for providing timely and relevant data to support planning and control activities and for preparing financial statements for external users.

5) What are the three main categories of inventories in a manufacturing company?

Ans:

1-5 The three main categories of inventories in a manufacturing company are raw materials, work in process, and finished goods.

Chapter – 2

Types of accounting:

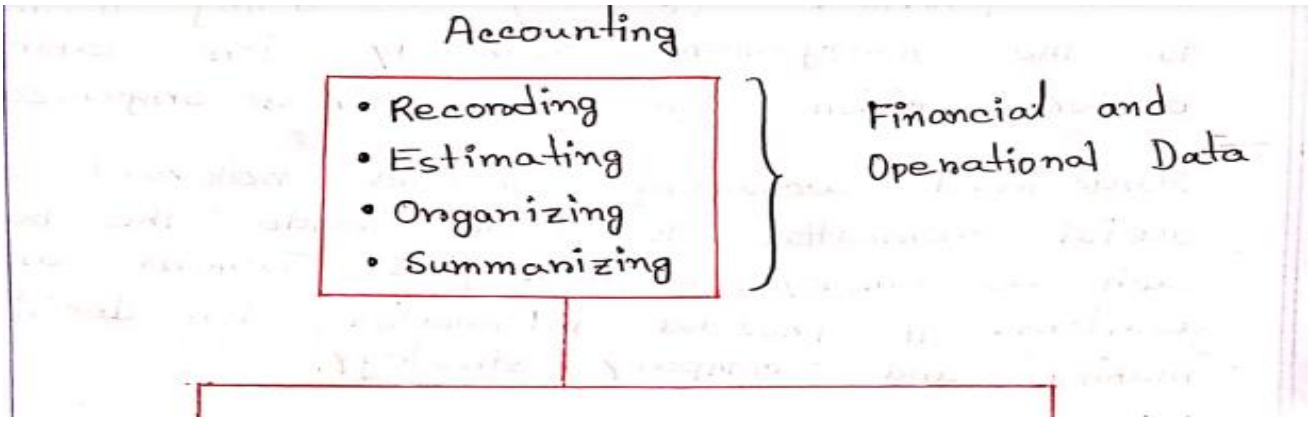
1. Financial Accounting: Financial accounting is the process of identifying, recording, classifying, summarizing, and preparing financial statements (income statement, owner's equity statement and balanced sheet) and interpreting the results from the business transactions. Financial accounting is based on past.

2. Cost Accounting: Cost accounting is a method of managerial accounting which aims to capture the total production cost of a business by measuring the variable costs of each production phase as well as fixed costs, such as lease expense.

Cost accounting is responsible for calculation and control of the cost of production. It is applied only for the manufacturing companies (pharma, textile etc.).

3. Management Accounting: Management accounting is that accounting which provides necessary accounting information to the management authority for taking better decisions for the business organizations.

Comparison of financial and managerial Accounting:



Financial Accounting	Managerial Accounting
• Reports to those outside the organization: Owners Creditors Tax authorities Regulators	• Reports to those inside the organization for: Planning Directing and motivating Controlling Performance evaluation
• Emphasizes financial consequences of past activities	• Emphasizes decisions affecting the future.
• Emphasizes objectivity and verifiability.	• Emphasizes relevance.
• Emphasizes summary data concerning the entire organization.	• Emphasizes detailed segment reports about departments, products and customers.
• Emphasizes precision.	• Emphasizes timeliness.
• Must follow GAAP.	• Need not follow GAAP.
• Mandatory for external reports	• Not mandatory.

General Cost Classification

Manufacturing Cost

⇨ Manufacturing costs are the cost incurred during the production of a product.

Most manufacturing companies separate manufacturing costs into "three" broad categories:

- Direct materials
- Direct labour
- Manufacturing overhead or, Indirect manufacturing cost or, factory overhead or, factory burden.

Direct Materials

→ Direct materials is the physical items built into a product. The materials that go into the final product are called "raw materials".
For example: the direct materials for a baker include flour, eggs, yeast, sugar, oil and water.

Direct Labour

→ Direct Labour is production or services labour that is assigned to a specific product, cost center, or work order. Direct labour consists of labour costs that can be easily (i.e. physically and conveniently) traced to individual units of product.

- Manufacturing Overhead

→ Manufacturing overhead, the third element of manufacturing cost include all manufacturing costs except direct materials and direct labour.

Manufacturing overhead includes items such as "indirect materials", "indirect labour"; maintenance and repairs on production equipment; and heat and light, property taxes, depreciation, and insurance on manufacturing facilities.

* Indirect materials are included as a manufacturing overhead.
* Indirect labour is also treated as part of manufacturing overhead.

Indirect labour includes the labour cost of janitors, supervisors, material handlers, and night security guards,

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Non-manufacturing Costs

⇨ Non-manufacturing costs are expenditures not associated with product costs.

Non-manufacturing costs are often divided into two categories:

- Selling costs
- Administrative costs.

- Selling Costs

→ Selling costs include all costs that are incurred to secure customer orders and get the finished product to the customer.
These costs are sometimes called order-getting and order-filling costs.
Examples of selling cost includes advertising, shipping, sales travel, sales commissions, sales salaries and costs of finished goods warehouses.

- Administrative Costs

Administrative costs include all costs associated with the general management of an organization rather than with manufacturing or selling.
Examples of administrative costs include executive compensation, general accounting, secretarial, public relations, and similar costs involved in the overall, general administration of the organization as a whole.

↳ Non-manufacturing costs are also often called selling, general and administrative (SG&A) costs or just "selling and administrative costs".

Product Costs or, Inventoriable costs

⇨ Product costs include all costs involved in acquiring or making a product. In the case of manufactured goods, these costs consists of "direct materials", "direct labour" and "manufacturing overhead".

Period Costs

⇨ Period costs are all the costs that are not product costs. All selling and administrative expenses are considered to be period costs.

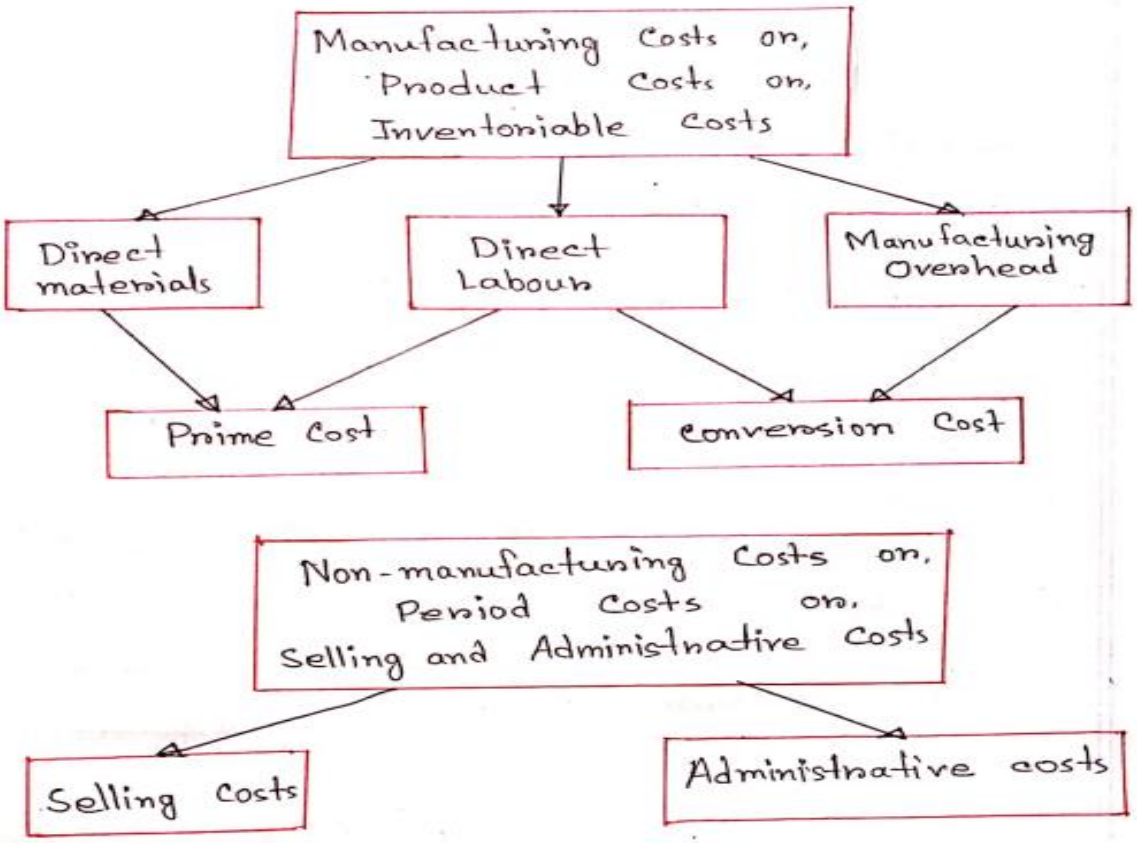
Prime Cost

⇨ Prime cost is the sum of direct material cost and labour cost.

Conversion Cost

⇨ Conversion cost is the sum of direct Labour cost and manufacturing overhead cost.

Summary of Cost Terms:



Schedule of Cost of Goods Manufactured

Direct materials:		
Beginning raw materials inventory	60,000	
Add: Purchases of raw materials	400,000	
Raw materials available for use	460,000	
Deduct: Ending raw materials inventory	50,000	
Raw materials used in production		410,000
Add: Direct Labour		60,000
Prime Cost		470,000
Add: Manufacturing Overhead		350,000
Total manufacturing Cost		820,000
Add: Beginning work in process inventory		90,000
Deduct: Ending work in process inventory		60,000
Cost of goods manufactured		850,00

* Direct materials + Direct labour = Prime cost
* Prime cost + manufacturing overhead = Total manufacturing cost
* Total manufacturing cost ± Beg WIP − End WIP = Cost of goods manufactured
* Direct mat = Beg raw mat + Purchase − End raw mat

4 Income Statement

Sales		500,000
Deduct: Cost of goods sold:		
Finished goods inventory beginning	20,000	
Add: Cost of goods manufactured	290,000	
Goods available for sale	310,000	
Deduct: Finished goods inventory ending	40,000	
		270,000
Gross margin		230,000
Deduct: Selling and administrative expenses		
Selling expenses	80,000	
Add: Administrative expenses	110,000	
		190,000
Net operating income		40,000

* Sales − Cost of goods sold = Gross margin

* Gross margin − S&A expenses = Net income

* Cost of goods sold = Finished goods inventory beginning + Cost of goods manufactured − Finished goods inventory ending

Question answer:

1) **Describe the three major activities of a manager.**
   Ans: Managers carry out three major activities in an organization: planning, directing and motivating, and controlling. Planning involves establishing a basic strategy, selecting a course of action, and specifying how the action will be implemented. Directing and motivating involves mobilizing people to carry out plans and run routine operations. Controlling involves ensuring that the plan is actually carried out and is appropriately modified as circumstances change.

2) **What are the four steps in the planning and control cycle?**
   Ans: The planning and control cycle involves formulating plans, implementing plans, measuring performance, and evaluating differences between planned and actual performance.

3) **What are the major differences between financial and managerial accounting?**
   Ans: In contrast to financial accounting, managerial accounting: (1) focuses on the needs of managers rather than outsiders; (2) emphasizes decisions affecting the future rather than the financial consequences of past actions; (3) emphasizes relevance rather than objectivity and verifiability; (4) emphasizes timeliness rather than precision; (5) emphasizes the segments of an organization rather than summary data concerning the entire organization; (6) is not governed by GAAP; and (7) is not mandatory.

4) **What are the three major elements of product costs in a manufacturing company?**
   Ans: The three major elements of product costs in a manufacturing company are direct materials, direct labor, and manufacturing overhead.

5) **Define the following: (a) Direct materials (b) Indirect materials (c) Direct labor (d) Indirect labor (e) manufacturing overhead**

Ans:

a. Direct materials are an integral part of a finished product and their costs can be conveniently traced to it.

b. Indirect materials are generally small items of material such as glue and nails. They may be an integral part of a finished product but their costs can be traced to the product only at great cost or inconvenience.

c. Direct labor consists of labor costs that can be easily traced to particular products. Direct labor is also called "touch labor."

d. Indirect labor consists of the labor costs of janitors, supervisors, materials handlers, and other factory workers that cannot be conveniently traced to particular products. These labor costs are incurred to support production, but the workers involved do not directly work on the product.

e. Manufacturing overhead includes all manufacturing costs except direct materials and direct labor. Consequently, manufacturing overhead includes indirect materials and indirect labor as well as other manufacturing costs.

6) **Explain the difference between product costs and a period cost.**

Ans: A product cost is any cost involved in purchasing or manufacturing goods. In the case of manufactured goods, these costs consist of direct materials, direct labor, and manufacturing overhead. A period cost is a cost that is taken directly to the income statement as an expense in the period in which it is incurred.

7) **Explain how the income statement of a manufacturing company differs from the income statement of a merchandising company?**

Ans: The income statement of a manufacturing company differs from the income statement of a merchandising company in the cost of goods sold section. A merchandising company sells finished goods that it has purchased from a supplier. These goods are listed as "purchases" in the cost of goods sold section. Because a manufacturing company produces its goods rather than buying them from a supplier, it lists "cost of goods manufactured" in place of "purchases." Also, the manufacturing company identifies its

inventory in this section as Finished Goods inventory, rather than as Merchandise Inventory.

8) **Describe how the inventory accounts of a manufacturing company differs from the inventory accounts of a merchandising company?**
Ans: A manufacturing company usually has three inventory accounts: Raw Materials, Work in Process, and Finished Goods. A merchandising company may have a single inventory account— Merchandise Inventory.

9) **Define the following terms: Differential cost, opportunity cost, and sunk cost.**
Ans: A differential cost is a cost that differs between alternatives in a decision. An opportunity cost is the potential benefit that is given up when one alternative is selected over another. A sunk cost is a cost that has already been incurred and cannot be altered by any decision taken now or in the future.

10) **Only Variable cost can be differential costs. Do you agree? Explain.**
Ans: No, differential costs can be either variable or fixed. For example, the alternatives might consist of purchasing one machine rather than another to make a product. The difference between the fixed costs of purchasing the two machines is a differential cost.

Chapter – 5

Cost Behavion : Analysis and Use

Cost Behavion :

⇨ how costs change as volume changes.

⇨ There are three common cost behavions :

1. Variable Costs
2. Fixed Costs
3. Mixed Costs

Variable Costs

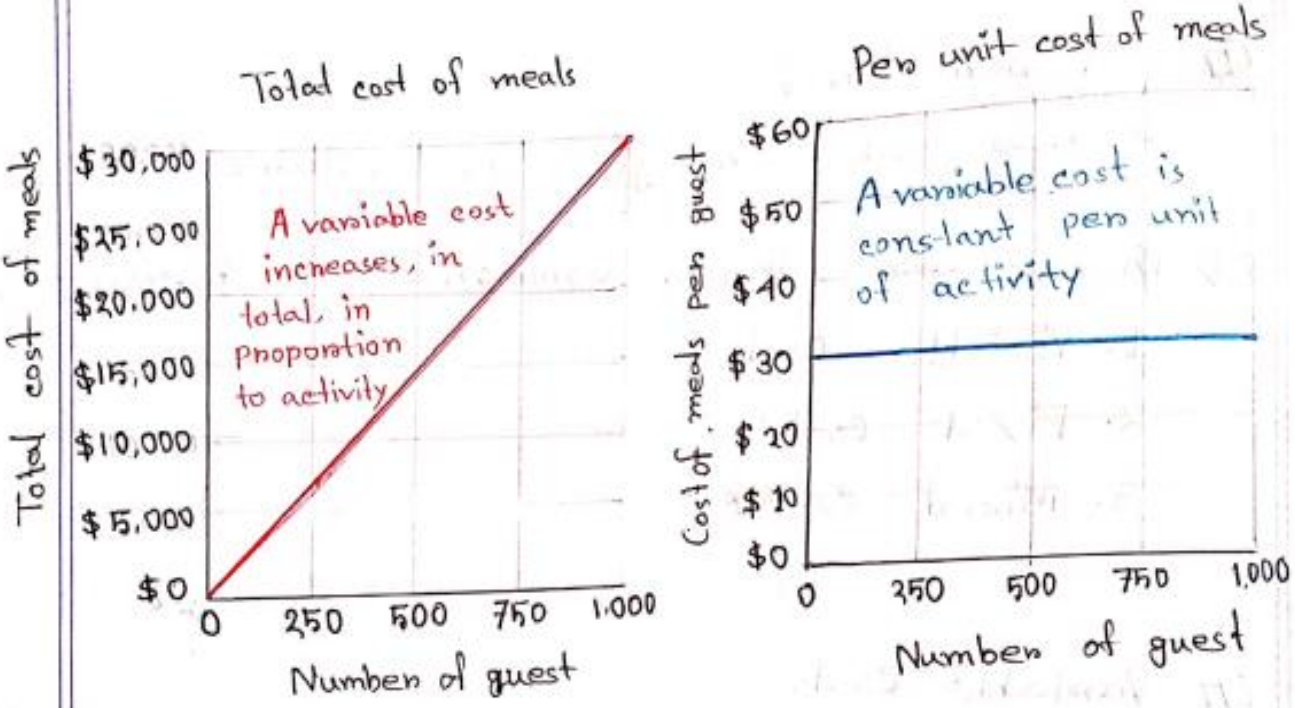
⇨ Variable costs are any expenses that change based on how much a company produces and sells.

This means that variable costs increase as production rises and decrease as production falls.

Typical variable costs.

- Raw materials.
- Direct Labour
- Factory utilities.
- Sales commissions
- Shipping costs

⇨ Variable cost behavion



- Total variable costs change in direct proportion to changes in volume.
- The variable cost per unit activity (v) remains constant and is the slope of the variable cost line.
- Total variable cost graphs always begin at the origin (if volume is zero, total variable costs are zero)
- Total variable costs can be expressed as follows :

$$y = vx$$

where y = total variable cost
v = variable cost per unit of activity
x = volume of activity

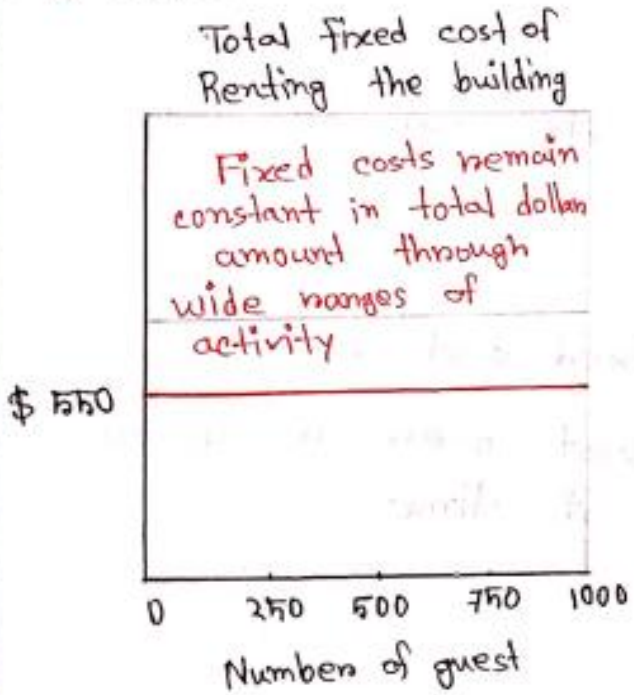
Fixed Costs

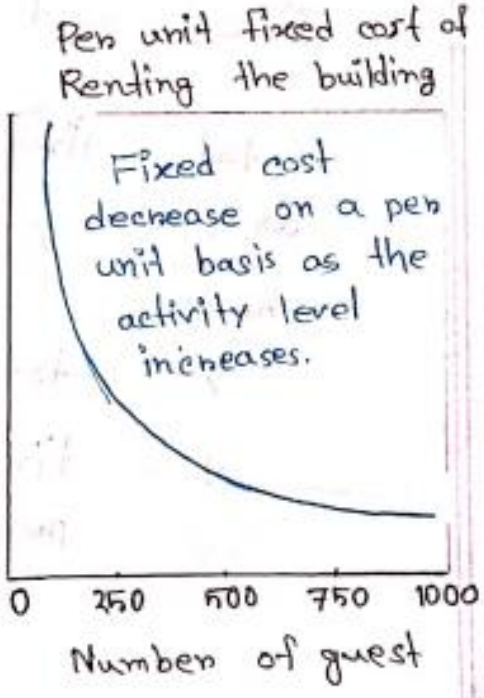
⇨ Fixed costs are any expenses that remain the same no matter how much a company produces.

Typical fixed costs

- Real estate taxes
- Insurance
- Supervisory salaries
- Depreciation
- Advertising

⇨ Fixed cost behavior





- Total fixed cost stay constant over a wide range of volume

Fixed costs per unit of activity vary inversely with changes in volume:

- Fixed cost per unit of activity increases when volume decreases.
- Fixed cost per unit of activity decreases when volume increases.

Total fixed costs graphs are always flat lines with no slope that intersect thy y-axis at a level equal to total fixed costs.

Total fixed costs can be expressed as; $y = f$

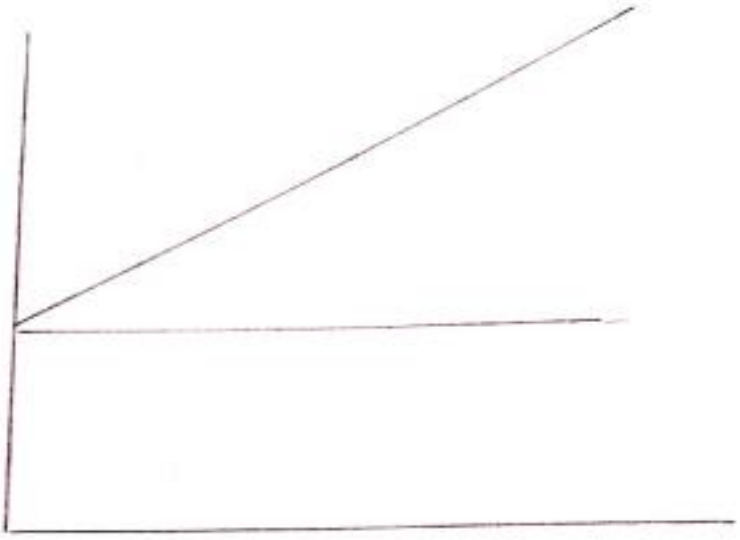
where,

$y =$ total fixed cost.

$f =$ fixed cost over a given period of time.

Mixed Costs

A Mixed cost is a cost that contains both a fixed cost component and a variable cost component.



- Total mixed costs increase as volume increases because of the variable cost component
- Mixed costs per unit decrease as volume increases because of the fixed cost component.
- Total mixed costs graphs slope upward but do not begin at the origin— they intersect the Y-axis at the level of fixed costs

- Total mixed costs can be expressed as a combination of the variable and fixed cost equations:

Total mixed costs = variable cost component + fixed cost component

$$y = vx + f$$

where,

y = total mixed costs

v = variable cost per unit of activity (slope)

x = volume of activity

f = fixed cost over a given period of time (vertical intercept).

The Relevant Range

⇨ This concept suggests that within a certain range of cost driven activity that total fixed cost and per unit variable costs will remain the same or linear.

⇨ Fixed costs and the relevent range

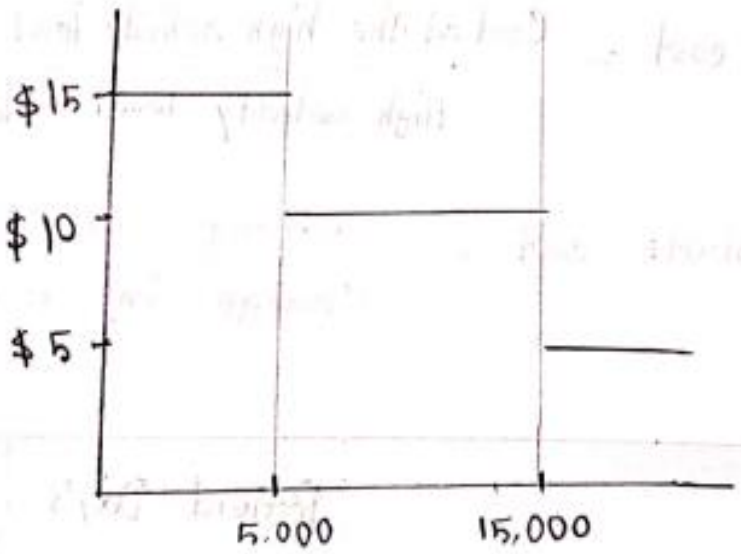
Example:

Office space is available at a rental rate of $30,000 per year in increments of 1,000 square feet. As the business grows more space is rented, increasing the total cost.

Total cost doesn't change for a wide range of activity, but then jumps to a new higher cost for the next higher range of activity.

⇨ Per unit variable cost and the Relevant Range :

Example: ABC company assumes that the cost of a green widget is $10 within a relevant range of no less than 5,000 units per year and no more than 15,000 units per year. If the actual volume is less than 5,000 units, the purchased cost of materials increases sufficiently to make the assumed cost of $10 per unit too low. Conversely, if the actual unit volume is higher than 15,000 units, the purchased cost of materials decreases sufficiently to make the assumed cost of $10 per unit too high.



The High-Low Method

The high-low method is a way of attempting to separate out fixed and variable costs given a limited amount of data.

The high-low method involves taking the highest level of activite and the lowest level of activity and comparing the total costs at each level.

Variable cost = Slope of the line

$$= \frac{\text{Rise}}{\text{Run}} = \frac{Y_2 - Y_1}{X_2 - X_1}$$

$$\text{Variable cost} = \frac{\text{Cost at the high activity level} - \text{Cost at low activity}}{\text{High activity level} - \text{low activity level}}$$

$$\text{Variable cost} = \frac{\text{Change in Cost}}{\text{Change in activity}}$$

Example

	Patient-Day's	Maintenance Cost Incurred
High activity level (June)	8,000	$9,800
Low activity level (March)	5,000	$7,400
Change	3,000	$2,400

Variable cost = $\frac{\text{Change in cost}}{\text{Change in activity}}$

$= \frac{\$\ 2,900}{3,000}$

$= \$0.80$ per patient-day

Fixed cost = Total cost — variable cost element

$= \$\ 9,800 - (\$0.80 \times 8,000)$

$= \$\ 3,400$

The cost of maintenance can be expressed as:

$Y = \$\ 3,400 + \$0.80\ X$

Question Answer:

1) **Distinguish between (a) a variable cost, (b) a fixed cost, and (c) a mixed cost.**

Ans:

a. Variable cost: The variable cost per unit is constant, but total variable cost changes in in direct proportion to changes in volume.

b. Fixed cost: The total fixed cost is constant within the relevant range. The average fixed cost per unit varies inversely with changes in volume.

c. Mixed cost: A mixed cost contains both variable and fixed cost elements.

2) **What effect does an increase in volume have on –**
   a) **Unit fixed costs?**
   b) **Unit variable costs?**

c) Total fixed costs?
d) Total variable costs?

Ans:

a. Unit fixed costs decrease as volume increases.

b. Unit variable costs remain constant as volume increases.

c. Total fixed costs remain constant as volume increases.

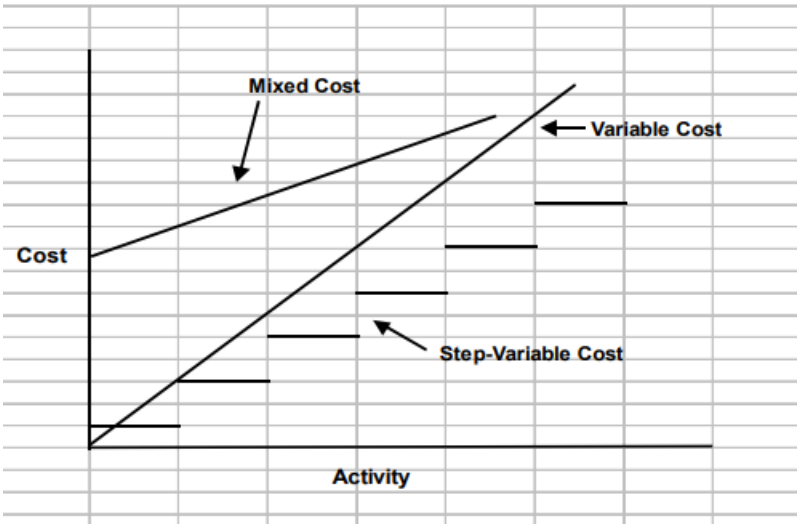
d. Total variable costs increase as volume increases.

3) **Define the following terms: a) cost behavior and b) relevant range**
Ans:
a. Cost behavior: Cost behavior refers to the way in which costs change in response to changes in a measure of activity such as sales volume, production volume, or orders processed.
b. Relevant range: The relevant range is the range of activity within which assumptions about variable and fixed cost behavior are valid.

4) **What is meant by an activity base when dealing with variable costs? Give several examples of activity bases.**
Ans: An activity base is a measure of whatever causes the incurrence of a variable cost. Examples of activity bases include units produced, units sold, letters typed, beds in a hospital, meals served in a cafe, service calls made, etc.

5) **Distinguish between (a) a variable cost, (b) a mixed cost, and (c) a step-variable cost. Plot the three costs on a graph, with activity plotted horizontally and cost plotted vertically.**
Ans:
a. Variable cost: A variable cost remains constant on a per unit basis, but increases or decreases in total in direct relation to changes in activity.
b. Mixed cost: A mixed cost is a cost that contains both variable and fixed cost elements.

c. Step-variable cost: A step-variable cost is a cost that is incurred in large chunks, and which increases or decreases only in response to fairly wide changes in activity.



6) **Distinguish between discretionary fixed costs and committed fixed costs.**
Ans: A discretionary fixed cost has a fairly short planning horizon—usually a year. Such costs arise from annual decisions by management to spend on certain fixed cost items, such as advertising, research, and management development. A committed fixed cost has a long planning horizon—generally many years. Such costs relate to a company's investment in facilities, equipment, and basic organization. Once such costs have been incurred, they are "locked in" for many years.

7) **Give the general formula for a mixed cost. Which term represents the variable cost? The fixed cost?**
Ans: The formula for a mixed cost is $Y = a + bX$. In cost analysis, the "a" term represents the fixed cost and the "b" term represents the variable cost per unit of activity.

8) **What is contribution margin?**
Ans: The contribution margin is total sales revenue less total variable expenses.

Chapter – 6

Cost Volume Profit analysis

Cost volume profit analysis is a powerful tool that helps managers understand the relationships among cost, volume and profit. CVP analysis focuses on how profits are affected by the following five factors:

1. Selling prices
2. Sales Volume
3. Unit variable costs
4. Total fixed costs
5. Mixed of products sold

Contribution income statement

	Total	Per Unit
Sales (400 speakers)	100.000	250
Variable expenses	60,000	150
Contribution margin	40,000	100
Fixed expenses	35,000	
Net operating income	5000	

⇨ Contribution Margin

Contribution Margin is the amount remaining from sales revenue after variable expenses have been deducted.

Thus, it is the amount available to coven fixed expenses and then to provide profits for the period.

* Contribution margin = Sales − Variable expenses

* Net income = Contribution margin − Fixed cost

⊛ Profit = C.M − F.C.

→ If CM > FC, Profit = C.M. − F.C.

→ If FC > CM, Loss = F.C. − C.M

→ If FC = CM, FC − C.M = 0 (break-even-point)

⇨ Break-Even point is the level of sales at which profit is zero.

Once the break-even point has been reached, net operating income will increase by the amount of the unit contribution margin for each additional unit sold.

CVP Relationships in Equation Form

Profit = Contribution Margin − Fixed expenses

Profit = (Sales − Variable expenses) − Fixed expenses

Profit = (Sales − V.C.) − F.C.

Sales = Selling price per unit × Quantity sold
= P × Q

Variable expenses = Variable expenses per unit × Quantity sold
= V × Q

Profit = (P × Q − V × Q) − Fixed expenses

Unit Contribution Margin = Unit CM.

Unit CM = Selling price per unit − Variable expenses per unit

Unit CM = P − V

Profit = (P − V) × Q − F.C.

Profit = Unit CM × Q − Fixed expenses

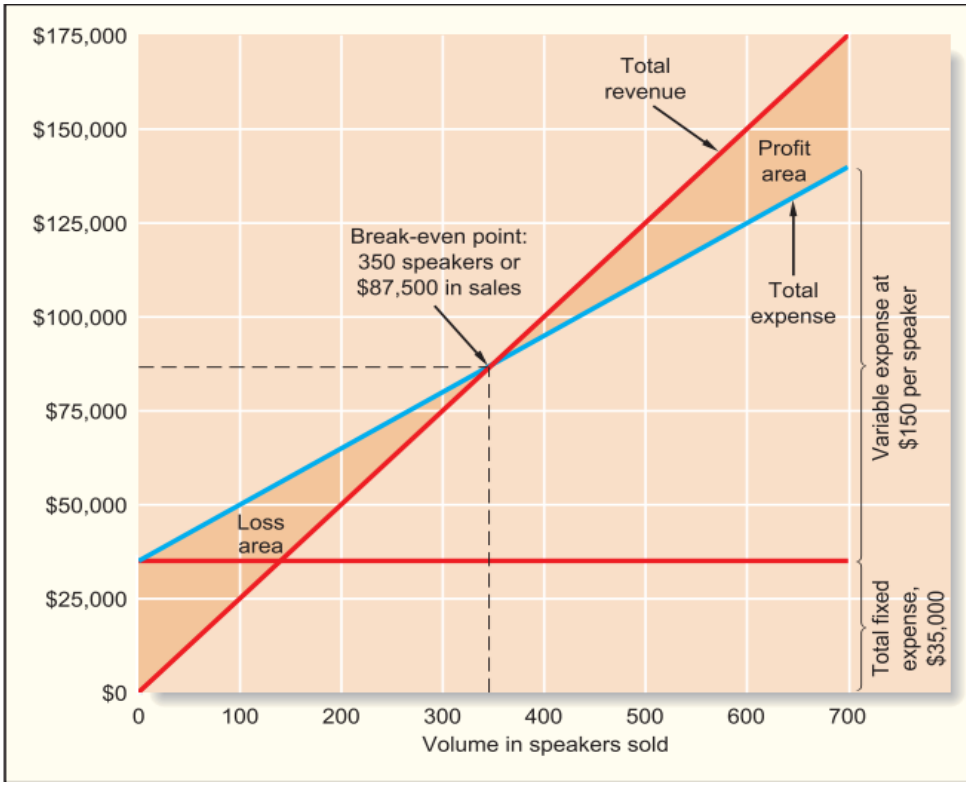


EXHIBIT 6–2
The Completed CVP Graph

Contribution Mangin Ratio

The contribution mangin as a pencentage of sales is nefenred to as the contribution mangin ratio (CM ratio)

$$\text{CM Ratio} = \frac{\text{Contribution mangin}}{\text{sales}}$$

$$\text{CM ratio} = \frac{\text{Total Contribution Mangin}}{\text{Total Sales}}$$

$$\text{CM ratio} = \frac{\text{Unit Contribution Mangin}}{\text{Unit selling price}}$$

Profit = Contribution Mangin − Fixed expenses

Profit = (CM ratio × Sales) − Fixed expenses

Tanget Profit Analysis

In tanget profit analysis, we estimate what sales volume (Q) is needed to achieve a specific tanget profit.

Tanget Profit = Contribution Mangin − Fixed expense

Tanget Profit = Unit CM × Quantity Sold − Fixed expense

$$\text{Unit CM} \times Q = \text{Tanget Profit} - \text{F.C.}$$

$$Q = \frac{\text{Tanget Profit} - \text{F.C.}}{\text{Unit CM.}}$$

$$\text{Unit sales to attain the Target Profit} = \frac{\text{Target profit} + \text{Fixed expenses}}{\text{Unit CM}}$$

$$\text{Profit} = \text{Contribution Margin} - \text{Fixed expense}$$

$$\text{Profit} = \frac{\text{Contribution Margin}}{\text{Sales}} \times \text{Sales} - \text{F.C}$$

$$\text{Profit} = \text{CM ratio} \times \text{Sales} - \text{F.C}$$

$$\text{CM ratio} \times \text{Sales} = \text{Profit} + \text{F C}$$

$$\text{Sales} = \frac{\text{Target Profit} + \text{Fixed expenses}}{\text{CM ratio}}.$$

$$\text{Dollar sales to attain a target profit} = \frac{\text{Target Profit} + \text{Fixed expenses}}{\text{CM ratio}}$$

Break-Even Analysis

Break-even analysis is just a special case of target profit analysis in which the target profit is zero.

$$\text{Unit sales to break-even} = \frac{0 + \text{Fixed expenses}}{\text{Unit CM}}$$

$$\text{Dollars sales to break-even} = \frac{\text{Fixed expense}}{\text{CM Ratio}}$$

The Margin of Safety

The margin of safety is the excess of budgeted (or actual) sales dollars over the break-even volume of sales dollars.

It is the amount by which sales can drop before losses are incurred. The higher the margin of safety, the lower the risk of not breaking even and incurring a loss.

$$\text{Margin of Safety in dollars} = \text{Total budgeted (or actual) sales} - \text{Break-even sales}$$

$$\text{Margin of safety percentage} = \frac{\text{Margin of safety in dollars}}{\text{Total budgeted sales in dollars}}$$

$$\text{Degree of leverage} = \frac{\text{Contribution Margin}}{\text{Net operating income}}$$

Question Answer

1) What is meant by a product's contribution margin ratio? How is the ratio useful in planning business operations?
   Ans: The contribution margin (CM) ratio is the ratio of the total contribution margin to total sales revenue. It can be used in a variety of ways. For example, the change in total contribution margin from a given change in total sales revenue can be estimated by multiplying the change in total sales revenue by the CM ratio. If fixed costs do not change, then a dollar increase in contribution margin results in a dollar increase in net operating income. The CM ratio can also be used in target profit and break-even analysis.

2) Often the most direct route toa business decision is an incremental analysis. What is meant by an incremental analysis?
   Ans: Incremental analysis focuses on the changes in revenues and costs that will result from a particular action.

3) What is meant by the term operating leverage?
   Ans: Operating leverage measures the impact on net operating income of a given percentage change in sales. The degree of operating leverage at a given level of sales is computed by dividing the contribution margin at that level of sales by the net operating income at that level of sales.

4) What is meant by the term break-even point?
   Ans: The break-even point is the level of sales at which profits are zero.

5) What is meant by the margin of safety?
   Ans: The margin of safety is the excess of budgeted (or actual) sales over the break-even volume of sales. It states the amount by which sales can drop before losses begin to be incurred.

Chapter – 7

Question Answer

7–1 What is the basic difference between absorption costing and variable costing?

7–2 Are selling and administrative expenses treated as product costs or as period costs under variable costing?

7–3 Explain how fixed manufacturing overhead costs are shifted from one period to another under absorption costing.

7–4 What are the arguments in favor of treating fixed manufacturing overhead costs as product costs?

7–5 What are the arguments in favor of treating fixed manufacturing overhead costs as period costs?

7–6 If the units produced and unit sales are equal, which method would you expect to show the higher net operating income, variable costing or absorption costing? Why?

7–7 If the units produced exceed unit sales, which method would you expect to show the higher net operating income, variable costing or absorption costing? Why?

7–8 If fixed manufacturing overhead costs are released from inventory under absorption costing, what does this tell you about the level of production in relation to the level of sales?

7–9 Under absorption costing, how is it possible to increase net operating income without increasing sales?

7–10 How does Lean Production reduce or eliminate the difference in reported net operating income between absorption and variable costing?

7-1 Absorption and variable costing differ in how they handle fixed manufacturing overhead. Under absorption costing, fixed manufacturing overhead is treated as a product cost and hence is an asset until products are sold. Under variable costing, fixed manufacturing overhead is treated as a period cost and is expensed on the current period's income statement.

7-2 Selling and administrative expenses are treated as period costs under both variable costing and absorption costing.

7-3 Under absorption costing, fixed manufacturing overhead costs are included in product costs, along with direct materials, direct labor, and variable manufacturing overhead. If some of the units are not sold by the end of the period, then they are carried into the next period as inventory. When the units are finally sold, the fixed manufacturing overhead cost that has been carried over with the units is included as part of that period's cost of goods sold.

7-4 Absorption costing advocates argue that absorption costing does a better job of matching costs with revenues than variable costing. They argue that all manufacturing costs must be assigned to products to properly match the costs of producing units of product with the revenues from the units when they are sold. They believe that no distinction should be made between variable and fixed manufacturing costs for the purposes of matching costs and revenues.

7-5 Advocates of variable costing argue that fixed manufacturing costs are not really the cost of any particular unit of product. If a unit is made or not, the total fixed manufacturing costs will be exactly the same. Therefore, how can one say that these costs are part of the costs of the products? These costs are incurred to have the capacity to make products during a particular period and should be charged against that period as period costs according to the matching principle.

7-6 If production and sales are equal, net operating income should be the same under absorption and variable costing. When production equals sales, inventories do not increase or decrease and therefore under absorption costing fixed manufacturing overhead cost cannot be deferred in inventory or released from inventory.

7-7 If production exceeds sales, absorption costing will usually show higher net operating income than variable costing. When production exceeds sales, inventories increase and under absorption costing part of the fixed manufacturing overhead cost of the current period is deferred in inventory to the next period. In contrast, all of the fixed manufacturing overhead cost of the current period is immediately expensed under variable costing.

7-8 If fixed manufacturing overhead cost is released from inventory, then inventory levels must have decreased and therefore production must have been less than sales.

7-9 Under absorption costing net operating income can be increased by simply increasing the level of production without any increase in sales. If production exceeds sales, units of product are added to inventory. These units carry a portion of the current period's fixed manufacturing overhead costs into the inventory account, reducing the current period's reported expenses and causing net operating income to increase.

7-10 Differences in reported net operating income between absorption and variable costing arise because of changing levels of inventory. In lean production, goods are produced strictly to customers' orders. With production geared to sales, inventories are largely (or entirely) eliminated. If inventories are completely eliminated, they cannot change from one period to another and absorption costing and variable costing will report the same net operating income.

Chapter – 9

Question Answer

9–1 What is a budget? What is budgetary control?
9–2 Discuss some of the major benefits to be gained from budgeting.
9–3 What is meant by the term *responsibility accounting?*
9–4 What is a master budget? Briefly describe its contents.
9–5 Why is the sales forecast the starting point in budgeting?
9–6 "As a practical matter, planning and control mean exactly the same thing." Do you agree? Explain.
9–7 Describe the flow of budget data in an organization. Who are the participants in the budgeting process, and how do they participate?
9–8 What is a self-imposed budget? What are the major advantages of self-imposed budgets? What caution must be exercised in their use?
9–9 How can budgeting assist a company in planning its workforce staffing levels?
9–10 "The principal purpose of the cash budget is to see how much cash the company will have in the bank at the end of the year." Do you agree? Explain.

9-1 A budget is a detailed quantitative plan for the acquisition and use of financial and other resources over a given time period. Budgetary control involves using budgets to increase the likelihood that all parts of an organization are working together to achieve the goals set down in the planning stage.

9-2

1. Budgets communicate management's plans throughout the organization.
2. Budgets force managers to think about and plan for the future. In the absence of the necessity to prepare a budget, many managers would spend all of their time dealing with day-to-day emergencies.
3. The budgeting process provides a means of allocating resources to those parts of the organization where they can be used most effectively.
4. The budgeting process can uncover potential bottlenecks before they occur.

5. Budgets coordinate the activities of the entire organization by integrating the plans of its various parts. Budgeting helps to ensure that everyone in the organization is pulling in the same direction.
6. Budgets define goals and objectives that can serve as benchmarks for evaluating subsequent performance.

9-3 Responsibility accounting is a system in which a manager is held responsible for those items of revenues and costs—and only those items—that the manager can control to a significant extent. Each line item in the budget is made the responsibility of a manager who is then held responsible for differences between budgeted and actual results.

9-4 A master budget represents a summary of all of management's plans and goals for the future, and outlines the way in which these plans are to be accomplished. The master budget is composed of a number of smaller, specific budgets encompassing sales, production, raw materials, direct labor, manufacturing overhead, selling and administrative expenses, and inventories. The master budget usually also contains a budgeted income statement, budgeted balance sheet, and cash budget.

9-5 The level of sales impacts virtually every other aspect of the firm's activities. It determines the production budget, cash collections, cash disbursements, and selling and administrative budget that in turn determine the cash budget and budgeted income statement and balance sheet.

9-6 No. Planning and control are different, although related, concepts. Planning involves developing goals and developing budgets to achieve those goals. Control, by contrast, involves the means by which management attempts to ensure that the goals set down at the planning stage are attained.

9-7 The flow of budgeting information moves in two directions—upward and downward. The initial flow should be from the bottom of the organization upward. Each person having responsibility over revenues or costs should prepare the budget data against which his or her subsequent performance will be measured. As the budget data are communicated upward, higher-level managers should review the budgets for consistency with the overall goals of the organization and the plans of other units in the organization. Any issues should be resolved in discussions between the individuals who prepared the budgets and their managers. All levels of an organization should participate in the budgeting process—not just top management or the accounting department. Generally, the lower levels will be more familiar with detailed, day-to-day operating data, and for this reason will have primary responsibility for developing the specifics in the budget. Top levels of management should have a better perspective concerning the company's strategy.

9-8 A self-imposed budget is one in which persons with responsibility over cost control prepare their own budgets. This is in contrast to a budget that is imposed from above. The major advantages of a self-imposed budget are: (1) Individuals at all levels of the organization are recognized as members of the team whose views and judgments are valued. (2) Budget estimates prepared by front-line managers are often more accurate and reliable than estimates prepared by top managers who have less intimate knowledge of markets and day-to-day operations. (3) Motivation is generally higher when individuals participate in setting their own goals than when the goals are imposed from above. Self-imposed budgets create commitment. (4) A manager who is not able to meet a budget that has been imposed from above can always say that the budget was unrealistic and impossible to meet. With a self-imposed budget, this excuse is not available. Self-imposed budgets do carry with them the risk of budgetary slack. The budgets prepared by lower-level managers should be carefully reviewed to prevent too much slack.

9-9 The direct labor budget and other budgets can be used to forecast workforce staffing needs. Careful planning can help a company avoid erratic hiring and laying off of employees.

9-10 The principal purpose of the cash budget is NOT to see how much cash the company will have in the bank at the end of the year. Although this is one of the purposes of the cash budget, the principal purpose is to provide information on probable cash needs during the budget period, so that bank loans and other sources of financing can be anticipated and arranged well in advance.

Chapter – 11

Question Answer

11–1 What is a quantity standard? What is a price standard?
11–2 Distinguish between ideal and practical standards.
11–3 What is meant by the term *management by exception?*
11–4 Why are separate price and quantity variances computed?
11–5 Who is generally responsible for the materials price variance? The materials quantity variance? The labor efficiency variance?
11–6 The materials price variance can be computed at what two different points in time? Which point is better? Why?
11–7 If the materials price variance is favorable but the materials quantity variance is unfavorable, what might this indicate?
11–8 Should standards be used to identify who to blame for problems?
11–9 "Our workers are all under labor contracts; therefore, our labor rate variance is bound to be zero." Discuss.
11–10 What effect, if any, would you expect poor-quality materials to have on direct labor variances?
11–11 If variable manufacturing overhead is applied to production on the basis of direct labor-hours and the direct labor efficiency variance is unfavorable, will the variable overhead efficiency variance be favorable or unfavorable, or could it be either? Explain.
11–12 What is a statistical control chart, and how is it used?
11–13 Why can undue emphasis on labor efficiency variances lead to excess work in process inventories?
11–14 What is the difference between delivery cycle time and throughput time? What four elements make up throughput time? Into what two classes can these four elements be placed?
11–15 If a company has a manufacturing cycle efficiency (MCE) of less than 1, what does it mean? How would you interpret an MCE of 0.40?

11-1 A quantity standard indicates how much of an input should be used to make a unit of output. A price standard indicates how much the input should cost.

11-2 Ideal standards assume perfection and do not allow for any inefficiency. Ideal standards are rarely, if ever, attained. Practical standards can be attained by employees working at a reasonable, though efficient pace and allow for normal breaks and work interruptions.

11-3 Under management by exception, managers focus their attention on results that deviate from expectations. It is assumed that results that meet expectations do not require investigation.

11-4 Separating an overall variance into a price variance and a quantity variance provides more information. Moreover, price and quantity variances are usually the responsibilities of different managers.

11-5 The materials price variance is usually the responsibility of the purchasing manager. The materials quantity and labor efficiency variances are usually the responsibility of production managers and supervisors.

11-6 The materials price variance can be computed either when materials are purchased or when they are placed into production. It is usually better to compute the variance when materials are purchased because that is when the purchasing manager, who has responsibility for this variance, has completed his or her work. In addition, recognizing the price variance when materials are purchased allows the company to carry its raw materials in the inventory accounts at standard cost, which greatly simplifies bookkeeping.

11-7 This combination of variances may indicate that inferior quality materials were purchased at a discounted price, but the low-quality materials created production problems.

11-8 If standards are used to find who to blame for problems, they can breed resentment and undermine morale. Standards should not be used to find someone to blame for problems.

11-9 Several factors other than the contractual rate paid to workers can cause a labor rate variance. For example, skilled workers with high hourly rates of pay can be given duties that require little skill and that call for low hourly rates of pay, resulting in an unfavorable rate variance. Or unskilled or untrained workers can be assigned to tasks that should be filled by more skilled workers with higher rates of

pay, resulting in a favorable rate variance. Unfavorable rate variances can also arise from overtime work at premium rates.

11-10 If poor quality materials create production problems, a result could be excessive labor time and therefore an unfavorable labor efficiency variance. Poor quality materials would not ordinarily affect the labor rate variance.

11-11 If overhead is applied on the basis of direct labor-hours, then the variable overhead efficiency variance and the direct labor efficiency variance will always be favorable or unfavorable together. Both variances are computed by comparing the number of direct labor-hours actually worked to the standard hours allowed. That is, in each case the formula is: Efficiency Variance = SR (AH – SH) Only the "SR" part of the formula, the standard rate, differs between the two variances.

11-12 A statistical control chart is a graphical aid that helps identify variances that should be investigated. Upper and lower limits are set on the control chart. Any variances falling between those limits are considered to be normal. Any variances falling outside of those limits are considered abnormal and are investigated.

11-13 If labor is a fixed cost and standards are tight, then the only way to generate favorable labor efficiency variances is for every workstation to produce at capacity. However, the output of the entire system is limited by the capacity of the bottleneck. If workstations before the bottleneck in the production process produce at capacity, the bottleneck will be unable to process all of the work in process. In general, if every workstation is attempting to produce at capacity, then work in process inventory will build up in front of the workstations with the least capacity.

11-14 The difference between delivery cycle time and throughput time is the waiting period between when an order is received and when production on the order is started. Throughout time is made up of process time, inspection time, move time, and queue time. These four elements can be classified into value-added time (process time) and non-value-added time (inspection time, move time, and queue time).

11-15 An MCE of less than 1 means that the production process includes non-value-added time. An MCE of 0.40, for example, means that
40% of throughput time consists of actual processing, and that the other 60% consists of moving, inspection, and other non-value-added activities.

---Horipriya Das Arpita ☺