Semester VI

### Scope

It deals with the collection and analysis of expenses, the measurement of production of the different products at the different stages of manufacture and the linking up of production with the expenses. It enhances the knowledge on preparation of financial statement, ratio analysis, fund flow and cash flow statement to take management decisions.

### **Objectives**

- To acquaint the students with basic concepts used in cost accounting, various methods involved in cost ascertainment and cost accounting book keeping systems.
- To enables the students to understand the importance of the subject through various analysis and helps the student to prepare management reports by using funds flow and cash flow statement.

### Unit I

**Cost Accounting:** Definition, Meaning and objectives - Distinction between Cost and Financial Accounting. Elements of cost and preparation of cost sheets and tender. Management Accounting - Definition and objectives - Distinction between management and financial accounting.

**Materials:** Stores Records - Purchase Order - Goods Received. Note - Bin Card - Stores Ledger - Purchase, Receipt and Inspection - Inventory Control. ABC Analysis - Economic Ordering Quantity - Maximum, Minimum and Reordering levels - Methods of Pricing Issued

# Unit II

**Labour:** Importance of labour cost control- various methods of wage payment-calculation of wagesmethods of incentives for schemes.

**Overheads:** Factory , Administration, selling and distribution of overheads – Classification-Allocation and Apportionment – Redistribution (secondary distribution) – Absorption of overheads including 'machine Hour Rate'.

# Unit III

**Analysis and Interpretation of Financial Statements-** Meaning – types of financial analysis – comparative statements – common size statements, - trend analysis. **Ratio Analysis**, meaning, objective, limitation, classification, computation and interpretation, liquidity, leverage Activity and profitability ratio. Return on capital employed computation and uses

# Unit IV

**Fund flow and Cash Flow Statement:** Schedule of changes in working capital- Preparation of fund flow statement, Preparation of cash flow statement- Importance of fund flow and cash flow analysis – Differenciate between fund flow and cash flow- Ratio analysis- Utility and limitation of accounting.

# Unit V

**Marginal Costing:** The concept- Break Even Analysis-Break-Even chart- Importance and assumptions-Application of profit volume ratio- Different types of problemes (with special emphasis on decision making problem). Budget amd Budgetary control: Procedure and utility- Preparation of dfferent types of budget including flexible budget.

# **Suggested Readings**

# **Text Book**

1. Jain and Narang, (2015) *Cost and Management Accounting*. [15<sup>th</sup> edition] Ludhiana Kalyani Publishers.

# **Reference Books:**

- 1. Goel, Rajiv, (2012) Management Accounting. International Book House,
- 2. Arora, M.N. (2013), Management Accounting. [10<sup>th</sup> edition] Vikas Publishing House, New Delhi.
- 3. Maheshwari, S.N. & S.N. Mittal. (2013), *Management Accounting*. Shree Mahavir Book Depot, New Delhi.
- 4. Khan, M.Y. and Jain, P.K. (2008) *Management Accounting*. [3<sup>rd</sup> edition] McGraw Hill Education

#### Lesson Plan 2016-19 Batch



# KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University) (Established under section 3 of UGC Act 1956)

Coimbatore-641021

**DEPARTMENT OF COMMERCE( UG)** 

Name: SUBASREE.R (Assistant Professor)Department: CommerceSubject Code: 16BPU602ASSubject: Cost and Management Accounting- Lesson Plan

Semester: VI

Year: 2016-19 Batch

UNIT - 1				
S. No	Lecture Hours	Contents	References	
1.	1	Cost Accounting –Definition and Meaning	T1: Pg.No.: I-2	
2.	1	Objectives	T1: Pg.No.: I-5	
3.	1	Difference between cost and financial accounting	T1: Pg.No.: I-9	
4.	1	Elements of cost	T1:Pg.No.: I-26	
5.	1	Preparation of cost sheet	T1:Pg.No.: I-29	
6.	1	Preparation of cost sheet (T)	T1: Pg.No.: I-29	
7.	1	Tender	W1	
8.	1	Difference between management and financial accounting	R2:11	
9.	1	Materials:stores record,purchase order	T1: Pg.No.: II-45	
10	1	Goods received note, Bin card (T)	T1: Pg.No.:II-53	
11	1	Stores ledger, purchase, receipt, inspection	T1: Pg.No.: II-53	
12	1	Inventory control (T)	T1: Pg.No.: II-4	
13	1	ABC Analysis	T1: Pg.No.: II-21	
14	1	EOQ (maximum,minimum,re-order)	T1: Pg.No.: II-11	
15	1	Methods of pricing issued (T)	T1: Pg.No.: II-20	
16	1	Recapitulation and discussion of important question	-	
	16			
		UNIT - 2		
1.	1	Labour – cost - Introduction	T1: Pg.No.: II-106	
2.	1	Labour cost control	T1: Pg.No.: II-107	
3.	1	Importrance: Labour cost control	T1: Pg.No.: II-112	
4.	1	Various methods of wage payment	T1: Pg.No.: II-153	
5.	1	Calculation of wages (T)	T1: Pg.No.: II-153	
6.	1	Calculation of wages	T1: Pg.No.: II-153	
7.	1	Methods of incentives for scheme	T1: Pg.No.: II-153	
8.	1	Overheads- Introduction	T1: Pg.No.: II-193	
9.	1	Classification of overheads (T)	T1: Pg.No.: II-194	
10	1	Factory, administration, selling and distribution of overheads	T1: Pg.No.: II-195	
11	1	Factory, administration, selling and distribution of overheads	T1: Pg.No.: II-195	
12	1	Allocation and apportionment	T1: Pg.No.: II-210	
13	1	Redistribution (secondary distribution)	T1: Pg.No.: II-214	

		(T)	
14	1	Absorption of overhead	T1: Pg.No.: II-217
15	1	Machine hour rate (T)	T1: Pg.No.: II-114
16	1	Recapitulation and discussion of important question	-
	1	Total no. of Hours planned for Unit 2	16
		UNIT - 3	
1.	1	Financial statements- Introduction	R1: Pg.No.: D-9
2.	1	Analysis and interpretation of financial statements	R1: Pg.No.: D-10
3.	1	Types of financial analysis	R1: Pg.No.: D-17
4.	1	Comparative statement (T)	R2:20
5.	1	Common size statemnet	R2:27
6.	1	Trend analysis	R2:15-37
7.	1	Ratio analysis : meaning- objective	R1: Pg.No.: D-32
8.	1	Ratio analysis : limitation , classification (T)	R1: Pg.No.: D-59
9.	1	Computation and interpretation	R1: Pg.No.: D-60
10	1	Liquidity	R1: Pg.No.: D-61
11	1	Leverage Activity	R1: Pg.No.: D-32
12	1	Profitability ratios (T)	_
13	1	Return on capital employed	R1: Pg.No.: D-58
14	1	Return on capital employed- computation and uses	R1: Pg.No.: D-56
15		Problem discussion (T)	_
16	1	Recapitulation & Discussion of important questions	-
		Total number of hours planned for Unit 3	16
		Total number of hours planned for Unit 3 UNIT - 4	16
1.	1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement	16 R1: Pg.No.: D-126
1. 2.	1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197
1. 2. 3.	1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230
1. 2. 3. 4.	1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235
1. 2. 3. 4. 5.	1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136
1. 2. 3. 4. 5. 6.	1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-198
1. 2. 3. 4. 5. 6. 7.	1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-198           R1: Pg.No.: D-135,210
1.           2.           3.           4.           5.           6.           7.           8.	1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis(T)	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-135
1.           2.           3.           4.           5.           6.           7.           8.           9.	1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-210,211
1.           2.           3.           4.           5.           6.           7.           8.           9.           10	1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis         Difference between fund flow and cash flow	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-135
1.           2.           3.           4.           5.           6.           7.           8.           9.           10           11	1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis         Difference between fund flow and cash flow         Ratio analysis	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-32
1.           2.           3.           4.           5.           6.           7.           8.           9.           10           11           12	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis         Difference between fund flow and cash flow         Ratio analysis         Importance of Ratio analysis(T)	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-32           R1: Pg.No.: D-58
1.           2.           3.           4.           5.           6.           7.           8.           9.           10           11           12           13	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis         Difference between fund flow and cash flow         Ratio analysis         Importance of Ratio analysis(T)         Limitations of ratio analysis	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-32           R1: Pg.No.: D-58           R1: Pg.No.: D-59
$     \begin{array}{r}       1. \\       2. \\       3. \\       4. \\       5. \\       6. \\       7. \\       8. \\       9. \\       10 \\       11 \\       12 \\       13 \\       14 \\       14 \\       \end{array} $	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis         Difference between fund flow and cash flow         Ratio analysis         Importance of Ratio analysis(T)         Limitations of ratio analysis         Utility and limitation of accounting	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-138           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-198           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-32           R1: Pg.No.: D-58           R1: Pg.No.: D-59           R1: Pg.No.: D-138
$     \begin{array}{r}       1. \\       2. \\       3. \\       4. \\       5. \\       6. \\       7. \\       8. \\       9. \\       10 \\       11 \\       12 \\       13 \\       14 \\       15 \\       \end{array} $	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis         Difference between fund flow and cash flow         Ratio analysis         Importance of Ratio analysis(T)         Limitations of ratio analysis         Utility and limitation of accounting         Statement of changes in financial position (T)	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-138           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-32           R1: Pg.No.: D-58           R1: Pg.No.: D-59           R1: Pg.No.: D-138           R1: Pg.No.: D-137
$     \begin{array}{r}       1. \\       2. \\       3. \\       4. \\       5. \\       6. \\       7. \\       8. \\       9. \\       10 \\       11 \\       12 \\       13 \\       14 \\       15 \\       16 \\     \end{array} $	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis         Difference between fund flow and cash flow         Ratio analysis         Importance of Ratio analysis(T)         Limitations of ratio analysis         Utility and limitation of accounting         Statement of changes in financial position (T)         Recapitulation & Discussion of important questions	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-138           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-135           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-58           R1: Pg.No.: D-58           R1: Pg.No.: D-138           R1: Pg.No.: D-137
$     \begin{array}{r}       1. \\       2. \\       3. \\       4. \\       5. \\       6. \\       7. \\       8. \\       9. \\       10 \\       11 \\       12 \\       13 \\       14 \\       15 \\       16 \\     \end{array} $	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total number of hours planned for Unit 3         UNIT - 4         Fund flow statement         Cash flow statement         Introduction : working capital         Schedule of changes in working capital (T)         Preparation of fund flow statement         Preparation of cash flow statement         Importance of fund flow and cash flow analysis         Utility and limitation of fund flow analysis(T)         Utility and limitation of Cash flow analysis         Difference between fund flow and cash flow         Ratio analysis         Importance of Ratio analysis(T)         Limitations of ratio analysis         Utility and limitation of accounting         Statement of changes in financial position (T)         Recapitulation & Discussion of important questions         Total no. of Hours planned for Unit 4	16           R1: Pg.No.: D-126           R1: Pg.No.: D-197           R2:230           R2:235           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-136           R1: Pg.No.: D-137           R1: Pg.No.: D-138           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-139           R1: Pg.No.: D-32           R1: Pg.No.: D-58           R1: Pg.No.: D-59           R1: Pg.No.: D-138           R1: Pg.No.: D-157           -           16

1.	1	Costing - concept	R1: Pg.No.: B-2
2.	1	Marginal costing - Introduction	R1: Pg.No.: C-80
3.	1	Break Even Analysis (T)	R1: Pg.No.: C-113
4.	1	Break Even Chart	R1: Pg.No.: C-123
5.	1	Importance and assumption	R1: Pg.No.: C-143
6.	1	Application of profit volume ratio (T)	R1: Pg.No.: C-145
7.	1	Problem solving	-
8.	1	Decision making problem (T)	R1: Pg.No.: C-149
9.	1	Budget and budgetary control	T1: Pg.No.: V-171
10	1	Procedure and utility	T1: Pg.No.: II-197
11	1	Preparation of different kinds of budget fixed and flexible budget (T)	T1: Pg.No.: V-196
12	1	Preparation of different types of budget	T1: Pg.No.: V-197
13	1	Recapitulation and Discussion of Important Questions	-
14	1	Revision of previous year question paper	-
15	1	Revision of previous year question paper	-
16	1	Revision of previous year question paper	-
		Total no. of Hours planned for Unit 5	16

### **Suggested Readings:**

# **Text Books:**

1. **T1:** Jain and Narang, (2015) *Cost and Management Accounting*. [15<sup>th</sup> edition] Ludhiana Kalyani Publishers.

# **Reference Books:**

- 1. **R1**: Maheshwari, S.N. & S.N. Mittal. (2013), *Management Accounting*. Shree Mahavir Book Depot, New Delhi.
- 2. R2: M.Wilson Management Accounting (2015) Himalayan Publishing House

# Websource : .

1. W1: http://www.accountingnotes.net/cost-accounting/tender-price/how-to-calculate-tender-price-cost-accounting/15051

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

# <u>UNIT-I</u>

# **SYLLABUS**

#### Unit I

**Cost Accounting:** Definition, Meaning and objectives - Distinction between Cost and Financial Accounting. Elements of cost and preparation of cost sheets and tender. Management Accounting - Definition and objectives - Distinction between management and financial accounting.

**Materials:** Stores Records - Purchase Order - Goods Received. Note - Bin Card - Stores Ledger - Purchase, Receipt and Inspection - Inventory Control. ABC Analysis - Economic Ordering Quantity - Maximum, Minimum and Reordering levels - Methods of Pricing Issued

### Cost:

The word cost is used very often in our day –to –day affairs. The committee on terminology, American institute of certified public accountants defined as: "Cost is the amount, measured in money, of cash expended or other property transferred, capital stock issued, services performed, or liability incurred, in consideration of goods or services received or to be received".

### **Costing:**

It is referred to as classifying, recording and appropriate allocation of expenditure for the determination of the costs of products or services".

### **Cost Accounting:**

# **Definition:**

The institute of cost and works accountants, India defines" cost accounting is the technique and process of ascertainment of costs. Cost accounting is the process of accounting for costs, which begins with recording of expenses or the bases on which they are calculated and ends with preparation of statistical data".

### Uses of Cost, financial and management accounting:

Cost Accounting is a branch of accounting, which has been developed because of the limitations of Financial Accounting from the point of view of management control and internal

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

reporting.

Financial accounting performs admirably, the function of portraying a true and fair overall picture of the results or activities carried on by an enterprise during a period and its financial position at the end of the year.

Also, on the basis of financial accounting, effective control can be exercised on the property and assets of the enterprise to ensure that they are not misused or misappropriated. To that extent financial accounting helps to assess the overall progress of a concern, its strength and weaknesses by providing the figures relating to several previous years. Data provided by Cost and Financial Accounting is further used for the management of all processes associated with the efficient acquisition and deployment of short, medium and long term financial resources.

Such a process of management is known as Financial Management. The objective of Financial Management is to maximize the wealth of shareholders by taking effective Investment, Financing and Dividend decisions. Investment decisions relate to the effective deployment of scarce resources in terms of funds while the Financing decisions are concerned with acquiring optimum finance for attaining financial objectives.

The last and very important 'Dividend decision' relates to the determination of the amount and frequency of cash which can be paid out of profits to shareholders.

On the other hand, Management Accounting refers to managerial processes and technologies that are focused on adding value to organizations by attaining the effective use of resources, in dynamic and competitive contexts.

Hence, Management Accounting is a distinctive form of resource management which facilitates management's 'decision making' by producing information for managers within an organization.

# **OBJECTIVES OF COST ACCOUNTING**

There is a relationship among information needs of management, cost accounting objectives, and techniques and tools used for analysis in cost accounting. Cost accounting has the following main objectives to serve:

### **1.** Determining selling price

The objective of determining the cost of products is of main importance in cost accounting. The total product cost and cost per unit of product are important in deciding selling price of product. Cost accounting provides information regarding the cost to make and sell product or services. Other factors such as the quality of product, the condition of the market, the area of distribution, the quantity which can be supplied etc., are also to be given consideration by the management before deciding the selling price, but the cost of product plays a major role.

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

### 2. Controlling cost

Cost accounting helps in attaining aim of controlling cost by using various techniques such as Budgetary Control, Standard costing, and inventory control. Each item of cost [viz. material, labour, and expense] is budgeted at the beginning of the period and actual expenses incurred are compared with the budget. This increases the efficiency of the enterprise.

### 3. Providing information for decision-making

Cost accounting helps the management in providing information for managerial decisions for formulating operative policies. These policies relate to the following matters:

(i) Determination of cost-volume-profit relationship.

(ii) Make or buy a component

(iii)Shut down or continue operation at a loss

(iv)Continuing with the existing machinery or replacing them by improved and economical machines.

### 4. Ascertaining costing profit

Cost accounting helps in ascertaining the costing profit or loss of any activity on an objective basis by matching cost with the revenue of the activity.

### **5.** Facilitating preparation of financial and other statements

Cost accounting helps to produce statements at short intervals as the management may require. The financial statements are prepared generally once a year or half year to meet the needs of the management. In order to operate the business at high efficiency, it is essential for management to have a review of production, sales and operating results. Cost accounting provides daily, weekly or monthly statements of units produced, accumulated cost with analysis. Cost accounting system provides immediate information regarding stock of raw material, semi-finished and finished goods. This helps in preparation of financial statements.

S. No.	Basis	Financial accounting	Cost accounting
1	Distinction	Transaction is	Transaction is
	period/amount	recorded for a definite	identified with cost
		period.	units.
2	Purpose	Prepared to show the	It aims to guide the

#### **Relationship of cost and financial accounting**

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

		final results during a particular period to owners, outsiders etc.	management for proper planning, control and decision making.
3	Analysis of expenditure	It analyses the expenditure under different types of expenses, e.g. wages, salaries, depreciation etc.	It analyses the expenditure under different types of performance as distinct from types of expenses e.g. direct labour, indirect labour, direct materials, etc.
4	Material control	It does not tell us the inefficiencies of material handling, as the figures are available in aggregate.	It provides the system of good inventory control through a prescribed procedure for purchases, storage, issue etc.
5	Nature	It is positive science	It is positive as well as normative science
6	Wastages	There are no such categories	Wastages, shortages, losses etc are categorized into normal and abnormal and aim to eliminate losses.
7	Dealings	It deals with actual facts and figures	It deals partly with actual facts and figures and partly with estimates.
8	Transactions	It deals with external transactions	It deals with internal transactions

# **CLASSIFICATIONS OF COSTS**

CLASS: III B.Com BPSCOURSE NAME: Cost and Management AccountingCOURSE CODE: 16BPU602AUNIT: IBATCH-2016-2019

### Costs are classified into following categories:

### 1. Classification according to nature or element

The Term is defined as "the primary classification of costs according to the factors upon which expenditure is incurred i.e. material cost, labour cost and expenses".

### 2. Classification according to function of companies

Under this method costs are classified as production cost, administrative cost, selling cost and distribution cost.

### 3. Classification according to variability

(a) Fixed Cost

It means the cost tends to unaffected with the volume of output.

(b) Variable cost

It means the cost tends to vary directly with the volume of output.

(c) Semi-variable cost

Semi variable costs are those which are partly fixed and partly variable.

### 4. Classification according to controllability

a) controllable or

b) uncontrollable costs

□ Controllable costs

A cost which can be influenced by the action of a specified number

of an undertaking is known as controllable cost.

E.g. direct material, direct labour etc.

# □ Uncontrollable costs

A cost which cannot be influenced by the action of a specified number of an undertaking is known as uncontrollable cost E.g. rent, rates, taxes, insurance, salary etc.

# 5. Classification into direct and indirect costs

### (a) Direct and

(b) Indirect costs

a) Direct costs are those which can be identified with the cost centre or cost unit and can conveniently be connected with any cost unit.

b) Indirect costs cannot be identified with but can be apportioned or

absorbed by cost centre"s or cost unit.

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

### 6. Classification according to capital and revenue

a) Capital costs

b) Revenue costs

a) Capital costs are those incurred in the acquisition of assets, either to earn

income or increase the earning capacity of the business.

E.g. cost of plant, machinery.

b) Revenue costs are those incurred to maintain earning capacity of the firm.

### 7. Classification according to normality costs

a) Normal costs

b) Abnormal costs

a) Normal costs is a cost which is normally incurred at a given level of output.

b) Abnormal costs are not normally incurred at a given level of output in the conditions in which that level of output is normal.



# **ELEMENTS OF COST**

CLASS: III B.Com BPS	COURSE NAME:	Cost and Management Accounting
COURSE CODE: 16BPU602A	UNIT: I	BATCH-2016-2019

Cost of production/manufacturing consists of various expenses incurred on Production/ manufacturing of goods or services. These are the elements of cost which can be divided into three groups: Material, Labour and Expenses.

# I Material

To produce or manufacture material is required; all material which becomes an integral part of finished product and which can be conveniently assigned to specific physical unit is termed as "Direct Material". It is also described as raw material, process material, prime material, production material, stores material, etc. The substance from which the product is made is known as material. It may be in a raw or manufactured state. Material is classified into two categories:

# □ Direct material

Direct Material is that material which can be easily identified and related with specific product, job, and process. Timber is a raw material for making furniture, cloth for making garments, sugarcane for making sugar, and Gold/ silver for making jewellery, etc are some examples of direct material.

# □ Indirect material

Indirect Material is that material which cannot be easily and conveniently identified and related with a particular product, job, process, and activity. Consumable stores, oil and waste, printing and stationery etc, are some examples of indirect material. Indirect materials are used in the factory, the office, or the selling and distribution department.

# **II Labour Expenses**

Labour is the main factor of production. For conversion of raw material into finished goods, human resource is needed, and such human resource is termed as labour. Labour cost is the main element of cost in a product or service. Labour can be classified into two categories:

# □ Direct labour

Labour which takes active and direct part in the production of a commodity. Direct labour is that labour which can be easily identified and related with specific product, job, process, and activity. Direct labour cost is easily traceable to specific products. Direct labour costs are specially and conveniently traceable to specific products. Direct labour varies directly with the volume of output. Direct labour is also known as process labour, productive labour, operating labour, direct wages, manufacturing wages, etc. Cost of wages paid to carpenter for making furniture, cost of a tailor in producing readymade garments, cost of

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

washer in dry cleaning unit are some examples of direct labour.

# □ Indirect labour

Indirect labour is that labour which can not be easily identified and related with specific product, job, process, and activity. It includes all labour not directly engaged in converting raw material into finished product. It may or may not vary directly with the volume of output. Labour employed for the purpose of carrying out tasks incidental to goods or services provided is indirect labour. Indirect labour is used in the factory, the office, or the selling and distribution department. Wages of store-keepers, time-keepers, salary of works manager, salary of salesmen, etc, are all examples of indirect labour cost.

# **III Other Expenses**

All cost incurred in the production of finished goods other than material cost and labour cost are termed as expenses.

# □ Direct expenses

These are expenses which are directly, easily, and wholly allocated to specific cost center or cost units. All direct cost other than direct material and direct labour are termed as direct expenses. Direct expenses are also termed as chargeable expenses. Some examples of the direct expenses are hire of special machinery, cost of special designs, moulds or patterns, feed paid to architects, surveyors and other consultants, inward carriage and freight charges on special material, Cost of patents and royalties.

1. Cost center means a location, person, or item of equipment or group of these for which costs may be ascertained and used for the purpose of cost control.

2. Cost object is anything for which a separate measurement of cost is desired. It may be a product, service, project, or a customer.

# □ Indirect expenses

These expenses cannot be directly, easily, and wholly allocated to specific cost center or cost units. All indirect costs other than indirect material and indirect labour are termed as indirect expenses. Thus, Indirect Expenses = Indirect cost – Indirect material – Indirect labour. Indirect expenses are treated as part of overheads. Rent, rates and taxes of building, repair, insurance and depreciation on fixed assets, etc, are some examples of indirect expenses.

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

# COST SHEET

Cost Sheets are statements setting out the costs of a product giving details of all the costs. Presentation of costing information depends upon the method of costing. A cost sheet can be prepared weekly, monthly, quarterly or annually.

In a cost sheet besides total expenditure incurred, cost per unit of output in case of each element of cost can be shown in a separate column. The cost sheet should give cost per unit in the previous period for the purposes of comparison

# PREPARATION OF COST SHEET

1. Prime Cost = Direct Materials + Direct Labour + Direct Expenses

2. Works or Factory Cost = Prime Cost + Works or Factory Overheads

3. Cost of Production = Factory or Works Cost + Administration Overheads

4. Total Cost or Cost of Sales = Cost of Production + Selling and Distribution Overheads

Particulars	Cost per	Total Cost
	unit	(Rs.)
	(Rs.)	
Direct materials consumed:		
Opening stock		
Add: purchases		
Less: closing stock		
Cost of drawings		
Direct expenses		
Primary packing materials		
PRIME COST		
Add: works/factory		
overheads:		
Indirect materials		
Indirect wages		
Factory rent and rates		
Factory lighting and heating		
Power and fuel		
Repairs and maintenance		
Drawing office expenses		
Research and experiment cost		
Depreciation of factory plant		

### **SPECIMEN OF COST SHEET**

### CLASS: III B.Com BPS COURSE CODE: 16BPU602A

COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019



CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

### **Advantages of Cost Sheet**

1. It is a simple and useful medium of communication which gives information about costs to all levels of management in a simple and lucid form.

2. It helps in comparative study of the various elements of costs with the past results and standard cost. Thus it helps the management in control process.

3. It helps the management in fixing up the selling price more accurately.

4. If acts as a guide to the manufacturer and helps him in formulating a definite and profitable production policy.

5. It enables a producer keep a close watch and control over the cost of production.

6. It shows the total cost and the per unit of the units produced during the given period.

#### **Tender or quotation:**

It is a kind of contract mostly followed by public companies especially when govt want to construct bridge, road, railways, airways and these kind of activities then govt call the top player in that field and ask them to give their quotation which means the minimum amount that is required to completed that project and the one who quotes the least price get that contract which is called tender.

It is a request to interested parties to send in their quotation for supplying goods or services. Tender system is usually followed in Government purchases, normally when the purchases are of large value, like building an airport etc. the specifications of the goods and services are available in Tender Documents, which the bidder (or the party quoting) can obtain from the tenderer. The documents may or may not be priced.

Tenders also carry the last date or deadline for submission of bids or quotes and also a date when all the quotations received will be opened. The parties quoting are then invited to participated in the opening. Prior to the opening of the bids, the prices are secret, since the bids are sealed and kept securely.

Usually, the party complying with all or most of the technical requirements and with the lowest price quoted is awarded the contract.

Tender in business means a type of quotation offering lowest prices for supply of some goods or service or job works. Normally, in tender you have to deposit some amount (refundable or non-refundable), whereas it is not compulsory in quotation.

It's a bid for a contract. We tender (give) our estimate, usually in competition with other potential contractors.

### **Problem 1**

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

The following particulars have been extracted from the costing records of a manufacturing co., for the year ended 30th June, 1991.

	Rs.
Raw material purchase	1,00,000
Wages :	
Direct	60,000
Indirect	10,000
Office Salaries	22,000
Finished Goods stock	10,000
Advertising	6,000
Agent"s Commission	10,000
Rent, rates & taxes etc (9/10 for works, 1/10 for office)	2,000
Works	4,000
Building-repairs	2,000
Salaries-plant	4,000
Depreciation	Rs.
Plant Machinery	4,000
Building	2,000
Carriage inward	2,000
Carriage Outward	6,000
Sales	4,00,000
Opening Stock	
Raw material	40,000
Travelling expenses	2,000
Power	2,000

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

Plant Maintenance	8,000
Miscellaneous expenses	
Plant	2,000
Office	2,000
Closing Stock	
Raw Materials	40,000
Finished goods	6,000

Building is occupied 9/10 by factory and 1/10 by office. Production 20,000 (Units) You are required to prepare a detailed cost statement showing

- i) Materials consumed
- ii) Prime cost
- iii) Works on cost.
- iv) Cost of production
- v) Cost of sales and
- vi) Profit earned

Solution: Particular Cost per Total unit Cost Opening Stock of 40,000 raw material 1,00,000 Add Purchases Add Carriage 2,000 inward 1,42,000 40,000 Less Closing stock or raw materials i) Materials 1,02,000 5.10 consumed

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

		60,000		3.00
Direct labour				
ii) Prime Cost		1,62,000		8.10
Add: Factory				
overheads				
Indirect Wages	10,000		0.50	
Power	2,000		0.10	
Plant	8,000		0.40	
Maintenance				
Rent, rates and	1,800		0.09	
taxes (9/10)				
Misc. Expenses	2,000		0.10	
Repairs –	1,800		0.20	
Building				
(9/10)0.20				
Salaries – Plant	4000		0.20	
Depreciation –	4,000		0.09	
Plant				
-Building (9/10)	1,800	34,000		1.77
iii) Works cost		1,97,400		9.87
Add: Office				
Overheads				
Office Salaries	22,000		1.10	
Rents, Rates and	200		0.01	
Taxes (1/10)				
Misc. expenses	4,000		0.20	
Repairs –	200		0.01	
Building (1/10)				

# **BRANCH ES OF ACCOUNTING:**

Accounting can be classified into three categories:

- 1. Financial Accounting
- 2. Cost Accounting, and

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

3. Management Accounting

# MANAGEMENT ACCOUNTING

Management accounting is not a specific system of accounting. It could be any form of accounting which enables a business to be conducted more effectively and efficiently. It is largely concerned with providing economic information to mangers for achieving organizational goals. It is an extension of the horizon of cost accounting towards newer areas of management. Much management accounting information is financial in nature but has been organized in a manner relating directly to the decision on hand.

Management Accounting is comprised of two words "Management and "Accounting. It means the study of managerial aspect of accounting. The emphasis of management accounting is to redesign accounting in such a way that it is helpful to the management in formation of policy, control of execution and appreciation of effectiveness.

Management accounting is of recent origin. This was first used in 1950 by a team of accountants visiting U. S. A under the auspices of Anglo-American Council on Productivity

### **Definition:**

The American Accounting Association defines Management Accounting as "the methods and concepts necessary for effective planning for choosing among alternative business actions and for control through the evaluation and interpretation of performances".

# **OBJECTIVES OF MANAGEMENT ACCOUNTING:**

The fundamental objective of management accounting is to enable the management to maximize profits or minimize losses. The evolution of management accounting has given a new approach to the function of accounting. The main objectives of management accounting are as follows:

1. Planning and policy formulation: Planning involves forecasting on the basis

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

of available information, setting goals; framing polices determining the alternative courses of action and deciding on the programme of activities. Management accounting can help greatly in this direction. It facilitates the preparation of statements in the light of past results and gives estimation for the future.

### 2.Interpretation process:

Management accounting is to present financial information to the management. Financial information is technical in nature. Therefore, it must be presented in such a way that it is easily understood. It presents accounting information with the help of statistical devices like charts, diagrams, graphs, etc.

### 3.Assists in Decision-making process:

With the help of various modern techniques management accounting makes decision-making process more scientific. Data relating to cost, price, profit and savings for each of the available alternatives are collected and analyzed and provides a base for taking sound decisions.

# **4.Controlling:**

Management accounting is a useful for managerial control.

Management accounting tools like standard costing and budgetary control are helpful in controlling performance. Cost control is effected through the use of standard costing and departmental control is made possible through the use of budgets. Performance of each and every individual is controlled with the help of management accounting.

### **5.Reporting:**

Management accounting keeps the management fully informed about the latest position of the concern through reporting. It helps management to take proper and quick decisions. The performance of various departments is regularly reported to the top management. **6.Facilitates Organizing:** 

"Return on Capital Employed" is one of the tools of management accounting. Since management accounting stresses more on Responsibility

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

Centres with a view to control costs and responsibilities, it also facilitates decentralization to a greater extent. Thus, it is helpful in setting up effective and efficiently organization framework.

# 7. Facilitates Coordination of Operations:

Management accounting provides tools for overall control and coordination of busi ness operations. Budgets are important means of coordination.

BASIS FOR COMPARISON	FINANCIAL ACCOUNTING	MANAGEMENT ACCOUNTING
Meaning	Financial Accounting is an accounting system that focuses on the preparation of financial statement of an organization to provide the financial information to the interested parties.	The accounting system which provides relevant information to the managers to make policies, plans and strategies for running the business effectively is known as Management Accounting.
Is is compulsory?	Yes	No
Information	Monetary information only.	Monetary and non-monetary information
Objective	To provide financial information to outsiders.	To assist the management in planning and decision making process by providing detailed information on various matters.
Format	Specified	Not specified
Time Frame	Financial Statements are prepared at the end of the	The reports are prepared as per the need and requirements

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

BASIS FOR COMPARISON	FINANCIAL ACCOUNTING	MANAGEMENT ACCOUNTING
	accounting period which is usually one year.	of the organization.
User	Internal and external parties	Only internal management.
Reports	Summarized Reports about the financial position of the organization	Complete and Detailed reports regarding various information.
Publishing and auditing	Required to be published and audited by statutory auditors	Neither published nor audited by statutory auditors.

# **Perpetual Inventory System**

Perpetual Inventory is a system of records maintained by the controlling

department, which reflects the physical movement of stocks and their current balance. It aims at devising the system of records by which the receipts and issues of stores may be recorded immediately at the time of each transaction and the balance may be brought out so as to show the up-to-date position.

The records used for perpetual inventory are:

(1) Bin Cards;

- (2) Store Ledger Accounts or Stores Record cards;
- (3) The forms and documents used for receipt, issue and transfer of materials.

# Advantages of Perpetual Inventory system

- 1. It keeps the record of stocks up to date.
- 2. The materials are kept within the Minimum and Maximum Limits. Non-observance of

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

the limits fixed is detected.

3. The materials going out of stock are easily detected and purchased at the appropriate time to avoid the risk of closing down.

4. It acts as a moral check on the staff of the stores Department and so the possibilities of loss or theft of materials are minimized.

5. The recording of stocks in Bin cards as well as Store Record cards minimizes the error in entering the receipts and issues of stocks.

6. The discrepancies noted after physical counting are detected and corrective action is taken promptly to avoid future occurrence.

7. The materials getting state or being wasted are detected and placed in right atmosphere.

8. The prompt balancing of closing stocks enables quick preparation of final accounts.

### **Purchasing Procedure**

- (1) Bill of Materials.
- (2) Purchase Requisition.
- (3) Selection of Suppliers.
- (4) Purchase Orders.
- (5) Goods Received Note.
- (6) Inspection of Materials.
- (1) Bill of Materials (Specification of Materials):

Bill of Materials is a list of containing all materials required for manufacturing a product. In other words, it is a form which indicates the quantity and quality and other specifications of materials required for a particular job or process or operation. This is a form sent to the purchase department for asking to purchase the said materials required for a particular work order. At least five copies of bill of materials are prepared by materials requiring department. Out of these copies one copy is sent to purchase department, to the stores, to the production section, to the cost office and to the office copy for further reference.

# (2) Purchase Requisition:

It is a form which indicates indent for materials. In any industry, the purchase department places orders for materials based on the purchase requisition form. Usually the purchase

CLASS: III B.Com BPSCOURSE NAME: Cost and Management AccountingCOURSE CODE: 16BPU602AUNIT: IBATCH-2016-2019

requisition form is initiated by the storekeeper for the standard items, the stock which require restocking again and again. Sometimes, it is initiated by other departments for special materials which are not stocked in stores. Whenever any special material is required for production, the purchase requisition form is prepared in three copies. Out of these copies one copy is sent to purchase department, one to the production control department and one to the initiating department.

### (3) Selection of Suppliers:

On receipt of the purchase requisition, the purchasing department prepares a list of suppliers who deals with the business of the materials to be purchased and are reliable. It is useful for the purchasing department to call for quotations. If the material to be purchased is of small Materials Cost Control quantities and is required urgently, it may be purchased locally. After receiving the quotations, prepare a comparative statement of the rates, terms and conditions mentioned in the tenders. If required samples may be received from the suppliers who have quoted the lowest rates. After satisfying the above, select the suitable suppliers to place the purchase order for required materials.

### (4) Purchase Order:

Purchase order is a letter which is sent to the suppliers for asking to supply the specified materials. Purchase order must contain the rates, terms, quantity, quality, time of delivery and other conditions mentioned therein. At least five copies of purchase order are prepared by the purchase section and each copy sent to :

- (1) Original to the Suppliers.
- (2) Storekeeping Department.
- (3) Account Section.
- (4) Inspection Department.
- (5) Retained in the purchase department for further reference.

### (5) Goods Received Note:

The materials receiving section is responsible to receive the goods and verify the contents of the packages along with Goods Received Note sent by the suppliers. This section should ensure that the goods have been received as per the purchase order and record the same in the

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

Consignment Note. Five copies of the materials received report are generally prepared. Out of these copies, the original is sent to purchasing department and remaining each copy sent to Stores department, Inspection, Accounts department and one copy retained by it for future reference.

# (6) Inspections of Materials:

A detailed inspection is carried out after the materials are received. The Inspection Section should ensure that the goods have been received according to purchase order specification. Return of materials to suppliers, if any, damaged, spoiled, excess or not in accordance with orders. If the materials are found to be satisfactory the bill of the suppliers is passed and the payment is made to the suppliers.

### **Stores Requisitions**

Forms used to keep track of materials charged to a particular job or department. The form contains such items as job number, department, and description of the material, quantity, unit cost, and dollar amount.

# STORES RECORDS

# 1. Bin Card

• A Bin card, also known as Bin Tag or Stock card, is a card showing quantitative record of the receipts, issues and closing balances of the material kept in the corresponding bin.

• The Bin card is placed in the bin or shelf or is hung over the almirah or the rack otherwise known as \_Bin'.

• Separate Bin cards are prepared for each item of stores and if two different materials are kept in one almirah, two Bin cards, one for each, are prepared, treating the almirah as two bins.

# 2. Stores Ledger

• Stores Ledger is a record of stores, both in quantity and value and is maintained by the stores Accountant.

• It is similar to Bin card but with the main difference that value of material is shown in

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

the Stores ledger.

• Stores Ledger is an important book and the account of each item of stores is maintained separately.

• While Bin cards are maintained by store-keeper in the store, Store Ledger is maintained in the accounting department by the Stores Accountant.

### **Economic Order Quantity**

• This represents the normal quantity to be placed on order when the stock has reached its re-order level.

• Re-ordering quantity is to be fixed taking into account the maximum and minimum stock levels. The quantity ordered must be that which, when added to the minimum stock, will not exceed the maximum stock to be carried at any point of time.

The following factors govern the re-ordering quantity.

1. Average consumption

- 2. Cost of pacing order
- 3. Cost of storage
- 4. Interest on capital etc.,

Carrying cost of inventory consists of

i) The costs of physical storage, such as cost of space, handling and upkeep expenses, insurance, cost of obsolescence etc.

ii) Interest on capital invested (the opportunity cost of the capital blocked up) and

iii) Cost of placing the order each time.

Economic order quantity or economic lot size (if it relates to production) refers to the number ordered in a single purchase or number of units should be manufactured in a single run so that the total costs-ordering or set up costs and inventory carrying costs are at the

Prepared by R.Subasree, Asst Prof, Department of COMMERCE, KAHE

Page 22/40

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

minimum level.

In other words, it is the quantity that should be ordered at one time so as to minimize the total of

i) Cost of placing orders and receiving the goods, and

ii) Cost of storing the goods as well as interest on the capital invested. The economic

order quantity can be determined by the following simple formula.

# **EOQ** = Economic order quantity or number of units in one lot.

A = Annual usage in units

S = Ordering costs for one order (or set-up costs for one set-up)

I = Inventory carrying costs per unit per year.

### This formula is based in three assumptions:

i) Price will remain constant throughout the year and quantity discount is not involved.

ii) Pattern of consumption, variable ordering costs per order and variable inventory

carrying charge per unit per annum will remain the same throughout, and

EOQ will be delivered each time the stock balance, excluding safety stock, is just reduced to nil.

In order to ensure that the optimum quantity of material is purchased and stocked,

neither less nor more, the storekeeper applies scientific techniques of materials

management.

Fixing of certain levels for each item of materials is one of such techniques. The following levels are generally fixed.

# 1. Maximum level 2. Minimum level

3. Order level 4. Danger level

1. Maximum level

• The maximum stock level indicates the maximum quantity of an item of material which can be held in stock at any time.

• The maximum stock can be calculated by applying the following formula.

• Maximum level – Re-order level + re-order quantity – (minimum consumption X minimum re-order period)

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

### 2. Minimum level

• Minimum level represents the quantity below which the inventory of any items should not allowed to fall;

• In other words, an enterprise must maintain minimum quantity of stock so that the production is not hampered due to non-availability of materials.

• If some buffer inventory is acting as a cushion against reasonable expected maximum usage.

### Formula:

# Minimum level = Re-order level – (Normal consumption x normal re-order period)

# **3. Re-ordering Level Point**

• Re-ordering stock level in relation to an items of stock is the point at which it

becomes essential to initiate purchase orders for its fresh supplies.

• Normally, re-ordering level is a point between the maximum and the minimum levels.

• Fresh orders must be placed before the actual stocks touch the minimum level.

### Formula:

# **Reorder level = maximum re-order period x maximum usage.**

### 4. Danger level

• The danger level is below the minimum level and represents a stage where immediate steps are taken for getting stock replenished.

• When the stock reaches danger level it is indicative that if no emergency steps are taken to restock the material, the stores will be completely exhausted and normal production stopped.

• Generally the danger level of stock is fixed above the minimum level but below the re-ordering level.

# **A-B-C** Analysis

To exercise proper control on stores, it is essential that the store items should be classified according to values so that the most valuable items may be paid greater and due a

CLASS: III B.Com BPSCOURSE NAME: Cost and Management AccountingCOURSE CODE: 16BPU602AUNIT: IBATCH-2016-2019

attention regarding their safety and care, as compared to others. The stores are divided into three categories generally, viz., A, B, and C.

In the ABC system, greatest care and control is to be exercised on the items of  $\underline{A}$  ist as any loss or breakage or wastage of any items of this list may prove to be very costly; proper care need be exercised on  $\underline{B}$  list items and comparatively less control is needed for  $\underline{C}$  list items. The rules relating to receipt maintenance issue and writing off stores items should be formed in accordance with the utility and value of the items based on the above categorization.

### **Advantages:**

1) A Strict Control is exercised on the items which represent a high percentage of the material costs.

2) Investment in inventory is reduced to the minimum possible level.

3) Storage cost is reduced as a reasonable quantity of materials, which account for high percentage of value of consumption, will be maintained in the stores.

# Methods of pricing

There are different methods of pricing materials issue. The various methods used fall under the following main categories:

# **I. Cost Price Methods**

(a) First in First out (FIFO)

- (b) Last in First out (LIFO)
- (c) Base Stock

# **II.** Average Price Methods

- (a) Simple Average.
- (b) Weighted Average

### **III.** Notional Price Method

(a) Standard Price.

CLASS: III B.Com BPS	COURSE NAME: Co	st and Management Accounting
COURSE CODE: 16BPU602A	UNIT: I	BATCH-2016-2019

(b) Inflated Price.

(c) Replacement price.

### First in First out Method (FIFO)

Under this method materials are used in the order in which they are received. In other words, materials received first are issued first. This process is repeated throughout.

The price of the earliest consignment is taken first and when that is exhausted, the price of the next consignment is adopted and so on. This method is most suitable for use where the material is slow moving and has comparatively high unit cost This method is also useful in times of falling prices because the issue price of material to the job will be high while the replacement cost of material will be below.

### Illustration

Show the Stores Ledger entries for the month of Jan, 2008 as they would appear when using FIFO method:

Jan.1 Purchased 300 units @ Rs.3 per unit Jan.4 Purchased 600 units @ Rs.4 per unit Jan.6 Issued 500 units.

Jan. 10 Purchased 700 units @ Rs.4

per unit. Jan. 15 Issued 800 units.

Jan.20 Purchased 300 units @ Rs.5

per unit. Jan.23 Issued 100 units.

Ascertain the quantity and value of closing stock as on 31st Jan under FIFO method. Solution:

# Stores ledger Account (FIFO Method)

200 units @ Rs.4 = 800 300 units @ Rs.5 = 1,500 Rs. 2,300

**Advantages of FIFO method:** 

CLASS: III B.Com BPS	COURSE NAME: Co	st and Management Accounting
COURSE CODE: 16BPU602A	UNIT: I	BATCH-2016-2019

(i) It is simple to understand and easy to calculate.

(ii) FIFO method is based on sound principle that materials are issued in order of purchase. Thus materials received first are issued first.

(iii) The value of closing stock will reflect current market price.

(iv) This method is suitable when prices are falling.

(v) This method is also useful if transactions are few and prices of material remain stable.

(vi) Unrealized profit or loss does not arise as materials are issued at actual cost but not on estimate.

(vii) Deterioration and obsolescence can be avoided by exhausting oldest materials at the time of issue.

### Disadvantages

This method suffers from the following disadvantages:

(i) The calculation becomes difficult and cumbersome when purchases are

made very frequently at different prices.

(ii) Issue price does not reflect current market price and so does cost of production.

(iii) For pricing one requisition, more than one price has often to be taken.

(iv) Cost of production tends to be high during the period of falling prices.

(v) Two similar jobs cannot be compared as the issue price of one lot differs from that of other.

### Last in First Out Method: (LIFO)

This method is exactly the opposite of FIFO method. Under this me materials received last are issued first. The price of the material to be issued would the cost price of the last lot of materials purchased.

This method is useful during t period of rising prices because materials will be

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

issued from the latest consignment a price which is closely related to the current price levels. Under this method product' cost is calculated on a basis which approximates to replacement cost.

### **Advantages of LIFO Method:**

The following are the advantages of LIFO method:

(i) This method is very simple to operate and quite useful where transactions are not too many and prices are fairly steady.

(ii) Production is charged at the most recent prices so that it is based on the principle that costing should be related to current price levels.

(iii) During the period of rising prices there is no windfall profit as in case of FIFO method.

(iv) Closing stock will be valued at earlier price and will not, therefore, show unrealized profit.

(v) This method reduces burden of income tax during the period of price rise Disadvantages

### **Disadvantages:**

This method suffers from the following disadvantages:

(i) Like FIFO system, calculations become complicated and cumbersome when transactions are many with frequent price fluctuations.

(ii) Two similar jobs cannot be compared because of charging different rates of materials to different jobs.

(iii) Under this system, closing stocks are not shown at current market price.

(iv) Sometimes more than one price has to be adopted for pricing a single requisition.

(v) When prices are falling it will lead to low charge to production, whereas materials in the stock purchased at higher rate need adjustment for valuation of closing stock.

CLASS: III B.Com BPSCOURSE NAME: Cost and Management AccountingCOURSE CODE: 16BPU602AUNIT: IBATCH-2016-2019

(vi) This system of material issue is not accepted by Income Tax Authorities.

### **Base Stock Price**

This is not a distinct method of pricing materials issue. This method is based o<sup>^</sup> the principle that a certain minimum quantity of material is always maintained in to ensure continuous production.

This minimum stock is treated as fixed asset and is called as base stock. Since minimum stock is created out of first lot of material purchased, it is always valued at cost price of first lot of materials. The quantity in excess of this base stock is issued at a price similar to FIFO or LIFO method.

This bad stock method operates in conjunction with some other methods like FIFO or LIFO and is called Base Stock - FIFO method or Base Stock - LIFO method. The advantages of FIFO and LIFO are applicable in this method.

# Simple Average Price Method

Under this method, materials issued are valued at average price. This is calculated by dividing the total of the price of the materials on the stock from which the material to be priced could be drawn by the number of prices used in that total.

Unit pieces of material in stock Issue Price - Number of purchases.

A new simple average price is to be determined when a fresh receipt is made. The rate is also revised when an earlier consignment is exhausted.

The following example will illustrate this. Suppose, following are three different lots of materials in stock when materials is to be priced:

100 units purchased @ Rs.4.00 200 units purchased @ Rs.5.00 300 units purchased @ Rs.6.00 The simple average price will be = Rs.5.00

# **Advantages of Simple Average Price Method**

The following are the advantages of simple average method:

(1) It is easy to calculate and simple to operate.

**CLASS: III B.Com BPS COURSE NAME: Cost and Management Accounting** COURSE CODE: 16BPU602A UNIT: I

- (2) A particular purchase at higher or lower rate cannot disturb the price to a great extent.
- (3) Issue rate remains the same until a fresh purchase is made.

### **Disadvantages:**

- (1) It is not a logical method as it takes into account purchase price but not quantity.
- (2) The value of closing stock becomes absurd.
- (3) The issue price does not relate to the current market price.

### Weighted Average

# Method

### Merits

- 1. This method irons out the wide fluctuations in the prices.
- 2. With every new issue, a new rate is not calculated.
- 3. The total value of the material issued does not behave up and down to the total value of the material received, as is the case with Simple Average Method.

### **Demerits**

- 1. Calculations are tedious. Prices are worked out in decimals to get correct results.
- 2. A lot of materials purchased at a very high price at one time continues to reflect its effect in the average, for a considerable time after it is exhausted.
- 1) Show the Store Ledger entries as they would appear when using
  - **FIFO** i)
  - LIFO ii)
  - iii) Weighted average method
  - Simple average method iv)
- April 1. Balance 300 units Rs. 600/-
  - 2. Purchase 200 units Rs. 440/-
  - 4. 150 units Issued
| CLASS: III B.Com BPS   | COURSE NAME: Cos | t and Management Accounting |
|------------------------|------------------|-----------------------------|
| COURSE CODE: 16BPU602A | UNIT: I          | BATCH-2016-2019             |

6.	Purchase	200 units	Rs. 460/-
11.	Issued	150 units	
19.	Issued	200 units	
22.	Purchase	200 units	Rs. 480/-
27.	Issued	250 units	

## **Problem 4**

The following is the record of receipts and issues a certain material in the factory during a

week. April 1997

- Opening Balance 50 tonnes @ Rs. 10 per tone. Issued 30 tonnes @ Rs. 10 per tones
- 2. Received 60 tonnes @ Rs. 10.20 per tone.
- 3. Issued 25 tonnes @ Rs. 10.20 per tone (stock verification reveals loss of tone)
- 4. Received back from orders 10 tonnes @ Rs. 10.20 per tone (Previously issued at Rs. 9.15 per tone)
- 5. Issued 40 tonnes @ Rs. 10.20 per tone.
- 6. Received 22 tonnes @ Rs. 10.30 per tone.
- 7. Issued 38 tonnes @ Rs. 10.30 per tone.

## Solution 3

## 1) Stores Ledger Account as per FIFO METHOD

Date	Details	Receipt	Issued	Balan	ice					
		Qty	Rate	Amt	Qty	Rate	Amt	Qty	Rate	Amt
April	Balance	300	2/-	600	-	-	-	300	2/-	600
1										

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

1

2	Purchase	200	2.20	440	-	-	-	300	2.00	600
						1		200	2.20	440
4	Issue				150	2.00	300	150	2.00	300
								200	2.20	440
6	Purchase	200	2.30	460				150	2.00	300
								200	2.20	440
								200	2.30	460
11	Issue				150	2.00	300	200	2.20	440
								200	2.30	460
19	Issue				200	2.20	440	200	2.30	460
22	Purchase	200	2.40	480				200	2.30	460
								200	2.40	480
27	Issue				200	2.30	460	150	2.40	360
					50	2.40	120			
			-							

Value of Closing Stock : 150 units at the rate of Rs. 2.40 value Rs. 360/-

# **LIFO METHOD**

Date	Details	Receipt	Issued	Balance						
		Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt
April	Balance	300	2.00	600	-	-	-	300	2.00	600
1						-		+-		
2	Purchase	200	2.20	440	-	-	-	300	2.00	600
						_		200	2.20	440

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4	Issue				150	2.20	330	300	2.00	600
								50	2.20	110
6	Purchase	200	2.30	460				300	2.00	600
								50	2.20	110
								200	2.30	460
11	Issue				150	2.30	345	300	2.00	600
								50	2.20	600
								50	2.30	115
19	Issue				50	2.30	115	200	2.00	400
					50	2.20	110			
					100	2.00	200			
22	Purchase	200	2.40	480	-	-	-	200	2.00	400
								200	2.40	480
27	Issue				200	2.40	480	150	2.00	300
					50	2.00	100			

Value of Closing Stock : 150 units @ Rs. 2.00 value is Rs. 300/-

# 1) WEIGHTED AVERAGE METHOD

Date	Details	Receipt	Issued	Balance						
		Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt
April	Balance	300	2.00	600	-	-	-	300	2.00	600
1						~		1		
2	Purchase	200	2.20	440	-		-	500	2.08	1040
4	Issue	-	-	-	150	2.08	312	350	2.08	728
6	Purchase	200	2.30	460	-		_	550	2.16	1118

1

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CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

11	Issue	-	-	-	150	2.16	324	400	2.16	864
19	Issue	-	-	T	200	2.16	432	200	2.16	432
22	Purchase	200	2.40	480	-	-	J	400	2.28	912
27	Issue	-	-	-	250	2.28	570	150	2.28	342

Value of Closing Stock : 150 units at the rate of Rs. 2.28 value Rs. 342.00/

# 2) SIMPLE AVERAGE METHOD

Date	Details	Receipt	Issued	Balar	ice					
		Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt
April	Balance	300	2.00	600	-	-	-	300	2.00	600
1					1					
2	Purchase	200	2.20	440	-	-	-	500	2.10	1050
4	Issue	-	-	-	150	2.10	315	350	2.10	35
6	Purchase	200	2.30	460	-		-	550	2.17	119350
11	Issue	-	-	-	150	2.17	325.50	400	2.17	868
19	Issue	-	-	-	200	2.17	434	200	2.17	434
22	Purchase	200	2.40	480	-	-	-	400	2.23	892
27	Issue	-	-	-	250	2.23	557.50	150	2.23	334.50

Value of Closing Stock : 150 units at the rate of Rs. 2.23 value Rs. 334.50

#### Solution 2

# **Stores Ledger Account Under LIFO**

Date Receipts Issues Balance

Prepared by R.Subasree, Asst Prof, Department of CO

Page 34/40

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

	Qty	Rate	Amt	Qty	Rate	Amt	Qty	Rate	Amt
1				30			50	10	500
1				30	10	300	20	10	200
2	60	10.20	612	-	-	-	20	10	200
							60	10.20	612
3	-	-	-	25	10.20	255	20	10	200
				1	10.20	10.20	35	10.20	357
							20	10	200
4	10	9.15	91.5				34	10.20	346.80
				-	-	-	20	10	200
							34	10.20	346.80
							10	9.15	91.50
5	-	-	-	10	9.15	31.50	20	10	200
				3	10.20	306.0	4	10.20	40.80
6	22	10.30	226.6				20	10	200
							4	10.20	40.80
7	-	-	-	22	10.30	226.6			
				4	10.20	40.80	8	10.00	80.00
				12	10.00	120.0			

Closing Stock 8 tonnes @ Rs. 10 = Rs. 80/-

**Stores Ledger Under FIFO** 

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

Date	Receipts	Issues	Balanc	e					
	Qty	Rate	Amt	Qty	Rate	Amt	Qty	Rate	Amt
1				30			50	10	500
1				30	10	300	20	10	200
2	60	10.20	612	-	-	-	20	10	200
							60	10.20	612
3	-	-	-	20	10	200			
				5	10.20	51	55	10.20	561
				1(loss)	10.20	10.20	54	10.20	550.80
4	10	9.15	91.5	-			54	10.20	550.80
					-	-	10	9.15	91.50
5	-	-	-	40	10.20	408	14	10.20	142.80
							10	9.15	91.50
6	22	10.30	226.6	-			14	10.20	142.80
							10	9.15	31.50
							22	10.30	226.60
7	-	-	-	14	10.20	142.80			
				10	9.15	91.50	8	10.3	82.40
				22	10.30	226.60			
Closi	ng stock 8 f	tonnes @	Rs. 10	.30 = 82.4	40				

# **POSSIBLE QUESTIONS**

PART A (ONE MARKS – ONLINE

EXAMINATION) PART B (2 MARKS)

CLASS: III B.Com BPS	COURSE NAME: C	ost and Management Accounting
COURSE CODE: 16BPU602A	UNIT: I	BATCH-2016-2019

- 1. Define material
- Find out the economic ordering quantity (E.O.Q) from the following particulars: Annual usage: Rs. 2,40,000 Cost of placing and receiving one order:

Rs.120 Annual carrying cost: 10% of

inventory value.

- 3. What are the techniques of inventory control?
- 4. Write a short note on FIFO
- 5. Explain LIFO
- 6. In a company weekly minimum and maximum consumption of material A are 25 and 75 units respectively. The re-order quantity as fixed by the company is 300 units. The material is received within 4 to 6 weeks from issue of supply order. Calculate minimum and maximum level of material A.
- 7. Explain re- ordering level
- 8. Write a short note on minimum and maximum level

### PART C (6 MARKS)

1 The-received side of the stores ledger account shows the following particulars:

Jan. 1	opening balance	500 units @ Rs.4
Jan. 5	Received from vendor:	200 units @Rs. 4.25
Jan.12	Received from vendor:	150units @ Rs. 4.10
Jan.20	Received from vendor:	300 units @ Rs. 4.50
Jan.25	Received from vendor:	400 units @ Rs. 4.00

#### **Issues of material were as follows:**

Jan. 4 – 200 units: Jan.10- 400 units: Jan 15 -100 units; Jan.19- 100 units: Jan.26- 200 units; Jan. 30- 250 units.

Issues are to be priced on the principle of –First In First Out. Write out the stores ledger account in respect of the materials for the month of January.

2 Compute the i) re-order level; ii) minimum level; iii) maximum level; and iv) average

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

stock level for components A and B based on the following data:

	А	В
Maximum consumption per week (in units)	150	150
average consumption per weeks (in units)	100	100
minimum consumption per week (in units)	50	50
Re-order period (in weeks)	8 to 12	4 to 8
re-order quantity (in units)	400	600

3 The following transaction occur in the purchase and issue

of a material: Jan . 2 purchased 4000units @

Rs.4.00 per unit Jan. 20 purchased 500 units @ Rs. 5.00 per unit Feb 5 issued 2,000 units Feb 10 purchased 6,000 units @ Rs.6.00 per unit Feb 12 issued 4,000 units March 2 issued 1,000 units March 5 issued 2,000 units March 15 purchased 4,500units @ Rs.5.50 per unit March 20 issued 3,000 units From the above table prepare stores ledger account. By adopting the LIFO method, what would be the value of stock in hand at the end of the period according to each of these two methods?

4 The following particulars have been extracted in respect of Material X. Prepare

Ledger account showing the receipts and issues, pricing the materials issued

on the basis of Simple Average Method. And Weighted Average Method

Date	Receipts Quantity	Rate	Issue Quantity
2-9-17	200	2.00	-
10-9-17	300	2.40	-
15-9-17	-	-	250

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

18-9-17	250	2.60	-
20-9-17	-	-	200

5 The following particulars have been extracted in respect of Material Q. Prepare Ledger account showing the receipts and issues, pricing the materials issued on the basis of Weighted Average Method.

# Receipts

1 <sup>st</sup> Nov.	Purchased 1000 units @ Rs. 4.00 per unit
12 <sup>th</sup> Nov.	Purchased 1800 units @ Rs. 4.30 per unit
23 <sup>rd</sup> Nov.	Purchased 1200 units @ Rs. 3.80 per unit
Issues	
5 <sup>th</sup> Nov.	Issued 800 units
15 <sup>th</sup> Nov.	Issued 1200 units
25 <sup>th</sup> Nov.	Issued 12

6. Show the Store Ledger entries as they would appear when using

i) F	IFO		ii) LIFO	
January	1	Balance	300 units	Rs. 1200/-
	3	Purchase	200 units	Rs. 880/-
	6	Issued	150 units	
	8	Purchase	200 units	Rs.920/-
1	3	Issued	150 units	
2	1	Issued	200 units	
2	4	Purchase	200 units	Rs. 960/-
2	9	Issued	250 units	

CLASS: III B.Com BPS	COURSE NAME: C	Cost and Management Accounting
COURSE CODE: 16BPU602A	UNIT: I	BATCH-2016-2019

7. In a factory three components X, Y, Z are used as

follows: Normal Usage 900 Unit Per Week Each

Maximum Usage1,350 Units Per Week Each

Minimum Usage	450 Units Per Wee	ek Each	
Re – order quantity	X - 7,200	Y - 9,000	Z - 10,800
Re – order period	X - 2 - 4 weeks	Y - 4 - 6 weeks	Z-3-5 weeks

Calculate for each component :

(a) Re – order Level (b) Minimum Level

(c) Maximum Level (d) Average Stock Level

8 .The standard price of a material is fixed at Rs.10 per unit. Prepare the Stores Ledger Account showing how the cost of materials issued and value of balance in stock will be recorded under the standard price method from the following purchases and issues made during April 2016.

April	2	Received	2,000 units	Rs. 11.
	5	Received	1,000 units	Rs. 10
	10	Issued	1,200 units	-
	18	Received	800 units	Rs. 9
	25	Issued	900 units	-
	29	Received	500 units	Rs.12
	30	Issued	1,100 units	<u> </u>

Also find out the efficiency of purchasing materials.

CLASS: III B.Com BPS COURSE CODE: 16BPU602A COURSE NAME: Cost and Management Accounting UNIT: I BATCH-2016-2019

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CLASS: III B.COM BPS

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## COURSE NAME: COST AND MANAGEMENT ACCOUNTING

**UNIT: II** 

BATCH-2016-2019

#### Unit II

Labour: Importance of labour cost control- various methods of wage payment6-calculation of wagesmethods of incentives for schemes.

**Overheads:** Factory, Administration, selling and distribution of overheads – Classification- Allocation and Apportionment – Redistribution (secondary distribution) – Absorption of overheads including 'machine Hour Rate'.

#### **Overhead Accounting**

The ultimate aim of Overhead Accounting is to absorb them in the product units produced by the firm. Absorption of overhead means charging each unit of a product with an equitable share of overhead expenses. In other words, as overheads are all indirect costs, it becomes difficult to charge them to the product units. In view of this, it becomes necessary to charge them to the product units on some equitably basis which is called as 'Absorption' of overheads. The important steps involved in Overhead Accounting are as follows:-

- (a) Collection, Classification and Codification of Overheads.
- (b) Allocation, Apportionment and Reapportionment of overheads.
- (c) Absorption of Overheads.

As mentioned above, the ultimate of Overhead Accounting is 'Absorption' in the product units. This is extremely important as accurate absorption will help in arriving at accurate cost of production. Overheads are indirect costs and hence there are numerous difficulties in charging the overheads to the product units.

#### (a) Collection, Classification and Codification of

Overheads: - These concepts are discussed below:-

col	lection	of	Over	head	ls:	

Document	<b>Overhead Costs</b>	Nature
Stores Issue note, purchase voucher	Indirect material	Consumables, lubricants etc.
Payroll sheets, time sheets	Indirect labour	Wages, salaries, contribution to statutory benefits, bonus,



CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

# COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

# BATCH-2016-2019

		incentives, idele time
Cash books	Indirect material, Indirect labour &	All type of costs
	indirect expenses	
		For provisions of costs that are
Subsidiary records – journal	Indirect material, Indirect labour &	not
	indirect expenses	actually paid for
Other reports	Indirect expenses	Depreciation, scrap, wastage
		etc.

Overheads collection is the process of recording each item of cost in the records maintained for

the purpose of ascertainment of cost of each cost centre or unit.

The following are the source documents for collection of overheads:-

- (i) Stores Requisition
- (ii) Wages Sheet
- (iii) Cash Book
- (iv) Purchase Orders and Invoices
- (v) Journal Entries
- (vi) Other Registers and Records

Source document and the nature of overheads are enumerated as below.

For the purpose of overhead accounting, collection of overheads is very important. It is necessary to identify the indirect expenses and the above mentioned source documents are used for this. Proper collection of overhead expenses will help to understand accurately the total overhead expenses.

CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

## **Classification of Overheads**

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Classification is defined by CIMA as, 'the arrangement of items in logical groups having regard to their nature (subjective classification) or the purpose to be fulfilled (Objective classification). In other words, classification is the process of arranging items into groups according to their degree of similarity. Accurate classification of all items is actually a prerequisite to any form of cost analysis and control system. Classification is made according to the following basis:

Based on Elements: Indirect Materials, Indirect labour and Indirect expenses.

Based on Functions of the organisation: Manufacturing overheads, Administrative overheads,

Selling and Distribution overheads, Research & Development overheads.

Based on the Behaviour: Fixed Overheads, Variable Overheads & Semi variable

## overheads. Classification according to Elements

According to this classification overheads are divided according to their elements. The classification is done as per the following details:-

## **Indirect Materials**

Materials which cannot be identified with the given product unit of cost centre is called as indirect materials. As per CAS-3 indirect material cost is defined as 'Materials, the cost of which cannot be directly attributed to a particular cost object'. For example, lubricants used in a machine is an indirect material, similarly thread used to stitch clothes is also indirect material. Small nuts and bolts are also examples of indirect materials.

## **Indirect Labour**

As per CAS-3, indirect employee cost is the employee cost, which cannot be directly attributed to a particular cost object. Wages and salaries paid to indirect workers, i.e. workers who are not directly engaged on the production are examples of indirect wages.

# **Indirect Expenses**

CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

**COURSE NAME: COST AND MANAGEMENT ACCOUNTING** 

UNIT: II

BATCH-2016-2019

As per CAS-3, Indirect Expenses are expenses, which cannot be directly attributed to a particular cost object. Expenses such as rent and taxes, printing and stationery, power,

insurance, electricity, marketing and selling expenses etc. are the examples of indirect expenses.

# **Functional Classification**

Overheads can also be classified according to their functions.

This classification is done as given below:-

# **Manufacturing Overheads**

As per CAS-3, Indirect Cost involved in the production process or in rendering service. Manufacturing overheads has different names such as Production Overheads, Works Overheads, Factory Overheads. Indirect expenses incurred for manufacturing are called as Manufacturing Overheads. For example, factory power, works manager's salary, factory insurance, depreciation of factory machinery and other fixed assets, indirect materials used in production etc. It should be noted that such expenditure is incurred for manufacturing but cannot be identified with the product units.

Manufacturing is a separate function like administration, selling and distribution. The term manufacturing stands for activities, which begin with receipt of order and end with completion of finished product. Manufacturing Overhead represents all manufacturing costs other than direct materials and direct labour. These costs cannot be identified specifically with or traced to cost object in an economically feasible way. In other words, manufacturing overhead are indirect manufacturing costs. The term overhead is peculiar and therefore, there is a growing tendency to prefer the term indirect manufacturing cost to overhead. Following synonyms have been used for Manufacturing Overhead:-

- (i) Factory overhead;
- (ii) Manufacturing overhead;
- (iii) Factory on cost;
- (iv) Works on cost;

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CLASS: III B.COM BPS

# COURSE CODE: 16BPU602A

# COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

### BATCH-2016-2019

(v) Factory burden and;

(vi) Manufacturing expenses.

Given below are a few examples of different items included in different groups of manufacturing overhead:

Indirect Material Cost: Glue, thread, nails, rivets, lubricants, cotton waste, etc.

Indirect Labour Cost: Salaries and wages of foremen and supervisors, inspectors, maintenance, labour, general labour; idle time etc.

**Indirect Services Costs**: Factory Rent, factory insurance, depreciation, repair and maintenance of plant and machinery, first aid, rewards for suggestions for welfare, repair and maintenance of transport system and apportioned administrative expenses etc.

Manufacturing Overhead further explains in apportionment, allocation and absorption.

## **Administrative Overheads**

Indirect expenses incurred for running the administration are known as Administrative Overheads. As per CAS-3, Administrative Overheads are defined as Cost of all activities relating to general management and administration of an organisation.

As per the functional classification, Administration Overheads comprise of those indirect costs which are related to the general administrative function in the company. Such functions are related to policy formulation, directing the organisation and controlling the operations of the company. Administration overheads are incurred for the benefit of organisation as a whole. Controlling them is difficult for they do not vary with most of the variables viz. production or sales. Examples of such overheads are, office salaries, printing and stationery, office telephone, office rent, electricity used in the office, salaries of administrative staff etc. The size as well as control over these overheads depends largely on decisions of management. Organisations growing very fast face the problem of controlling Administrative Overheads. Multi-location set

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

#### BATCH-2016-2019

up leads to duplication of many administrative cost

## **Collection and Absorption of Administration Overheads**

The collection of overheads is done firstly by nature of the expenses through the chart of accounts. Administrative departments in an organisation could be Corporate Office, Finance and Accounts, Company Secretary, Human resources, Legal, General Administration. The overheads that are common to all these departments are apportioned on some suitable basis e.g. in the following manner:

- (a) For Office rent, rates & taxes Floor space as the basis,
- (b) For Depreciation on office building Floor space as the basis
- (c) For Legal fees No of cases handled as the basis
- (d) For Salaries of common staff Ratio of salaries of departments as the basis
- (e) For Typist pool No of documents typed as the basis

Absorption of the Administrative Overheads into cost units is very difficult. Many times it is advised that these overheads may not be absorbed into product units because of the difficulty and non-relevance of them with production activity. Normally, the Administrative Overheads are totalled together and then using a suitable basis, a rate of recovery is arrived at to absorb the same. It could be mostly a percentage of Works cost or factory cost. Based on the principle of *'charging what the traffic can bear'*, the absorption could be on the basis of a percentage of gross profit. Whatever method selected, it will be arbitrary and could lead to erroneous conclusions. A Cost Accountant has to use all the experience and history of the organisation before he selects a particular method to adopt.

# **Treatment of Administration Overheads**

There are three different ways of treating the administration overheads as follows:-

## 1) Apportion between Production and Selling & Distribution functions:

This treatment is based on the logic that the administrative functions are for the entire

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

company and these functions facilitate both production as well as selling. In other words, the absorption of Administration Overheads would happen through Production and Selling

Overheads. This means these overheads lose their identity. The problem is of course, selection of basis to divide these overheads over the two principal functions of production and selling.

# 2) Transfer to P & L Account

This method agrees that administrative costs are all time based costs and as such bear no relation what is produced or what is sold. These are mainly of fixed nature. Hence there is no point in dividing them further to be included in the cost of production or cost of selling. They should be simply charged to the P & L Account. However, this may lead to undervaluation of stocks.

## 3) Treating as a separate addition to cost of production & sales

In this method, administration is treated as a separate function and is added as a separate line in the cost computation sheet for a job or an order. Here again, the basis for inclusion as a part of cost of a job is a difficult choice. Generally, a percentage of factory cost is taken as a basis. A care needs to be taken to ensure that the Administration Overheads are charged equitably to Cost of Sales, FG stock and WIP as well.

## **Controlling Administration Overheads**

Given the nature of these expenses, they cannot be controlled at the lower level of management. They can be better controlled by top management as they pertain to formulating policy and directing the organisation. The first step in the control mechanism is proper classification of expenses departmentalisation. The actual expenses are collected for each department and then compared with a bench mark. Deviation are analysed and causes for increase are mitigated by fixing responsibility on the departmental head.

The control benchmarking can be done with respect to:

() Figures of the previous year. Expenses could be compared with the figures of previous year

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UNIT: II

BATCH-2016-2019

and increase or decrease are analysed. However, comparison with previous year may not help as the condition may have totally changed from one year to the other.

- (ii) Use of budgets. Budgets are estimates for the current year, and they take into account the changed conditions. They also built in the year's complete plan which would factor all changes in the cost structure. It is advisable to compare budgeted overheads with actual for control purpose.
- (iii) Use of standards. Although very scientific, this method is difficult to operate. Administrative activities (being very subjective) cannot be standardised. On a certain level it can be applied e.g. the time taken to process a voucher by accountant can be standardised, or time taken for processing a payment could be standardised.

#### **Selling and Distribution Overheads**

As per CAS-3, Selling Overheads, also known as Selling Costs, are the expenses related to sale of products and include all Indirect Expenses in sales management for the organization. Overheads incurred for getting orders from consumers are called as Selling Overheads. On the other hand, overheads incurred for execution of order are called as Distribution Overheads. As per CAS-3, Distribution Overheads, also known as Distribution Cost, are the cost incurred in handling a product from the time it is ready for dispatch until it reaches the ultimate consumer. Examples of Selling Overheads are sales promotion expenses, marketing expenses, salesmen's salaries and commission, advertising expenses etc. Examples of Distribution Overheads are warehouse charges, transportation of outgoing goods, packing, commission of middlemen etc.

The magnitude of S & D Overheads in the total cost would depend on many factors such as nature of the product, type of customers, spread of market, statutory restrictions etc. A consumer product needs heavy expense on advertising. A sale to institutions rather than individual customers needs a different selling effort. Distribution Costs will increase if the spread of the market is large. Some activities cannot be advertised at all such as a Doctor, a Cost Accountant. The total magnitude of S & D Costs and the proportion of selling and distribution

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

efforts will decide the treatment thereof and control mechanisms to be used. For some of selling expenses there may not be a direct relationship with the product. If a company incurs expense on advertising, it may be difficult to relate to a specific product unless it's a product advertisement. But further, there may be a substantial time lag between the expense and the benefit arising out of that. In case of Distribution Costs many of them may be possibly linked to the product.

## Collection and Absorption of S&D Overheads

While classifying the S & D Costs are properly bifurcated and coded accordingly. This could be done by having separate account codes for Selling Overheads such as: advertising, sale commission, travelling expense, communication, exhibition, market survey, free samples, credit & collection costs, bad debts, and Distribution expenses such as: transportation vehicle related expenses, warehousing and storage at different places, depreciation. Depending upon the size of the organization, there may be proper departmentalization of S&D activities. The departments could be:

#### - Sales head office

- Sales regional offices
- Depots
- Direct selling department
- Dealers management
- Credit and collection (commercial)

The costs are collected through various source documents under the above heads and for the above departments. For absorption, the basis to be used will have practical difficulties, as one will have to look for a relationship between the expenses and the cost unit. Some expenses like sales commission, shipping costs, and direct selling expenses can be absorbed directly. The other expenses can be absorbed on the basis of either sales value, cost of goods sold, gross profit or number of units sold. Out of these the sales value method is the most commonly used.

## Control over S & D Expense

The S & D Expenses are related to sales and distribution activity which is externally

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# COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

focused. The extent of these expenses depend mainly on external factors like consumer profile, changing habits, technology improvements etc. Controlling these expenses does not mean capping them. It aims at increasing the effectiveness of these expenses e.g. getting maximum sales per rupee of S & D Expenses. For control purpose, a great care should be taken to ensure correct classification and collection of S & D Overheads. The collected expenses must be analysed to assess the effect of them on sales. Such analysis could be done as follows:

- (a) Analysis of sales and S & D Expenses by geographical locations This could be regions, zones, domestic and international etc.
- (b) Analysis by type of customers This could be done as institutional, government, retail etc.
- (c) Analysis by products or services This may be done as range of products, the application of products, brands etc.
- (d) Analysis by salesmen.
- (e) Analysis by channel of distribution This analysis pertains to wholesalers, retailers, commission agents etc.

The analysis of sales, profits and S & D expenses on the basis of above factors will give a good insight into the performance as well as control over expenses. All these three parameters may be compared with

- Previous year;
- Budget for the current year or
- Standards for the current year

#### Allocation, Apportionment and Reapportionment of Overheads

After the collection, classification and codification of overheads, the next step is allocation and apportionment of overheads into the product units. The following steps are required to complete this process.

#### Departmentalization

Before the allocation and apportionment process starts, the first step in this direction is

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**COURSE CODE: 16BPU602A** 

COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

'Departmentalization' of overhead expenses. Departmentalization means creating departments in the firm so that the overhead expenses can be conveniently allocated or apportioned to these departments. For efficient working and to facilitate the process of allocation, apportionment and reapportionment process, an organization is divided into number of departments like, machining, personnel, fabrication, assembling, maintenance, power, tool room, stores, accounts, costing etc and the overheads are collected, allocated or apportioned to these departments. This process is known as 'departmentalization' of overheads which will help in ascertainment of cost of each department and control of expenses.

#### Allocation

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CIMA defines Cost Allocation as, 'the charging of discrete, identifiable items of cost to cost centres or cost units'. In simple words *complete distribution of an item of overhead to the departments or products on logical or equitable basis is called allocation*. Where a cost can be clearly identified with a cost centre or cost unit, then it can be allocated to that particular cost centre or unit. In other words, allocation is the process by which cost items are charged directly to a cost unit or cost centre. For example, electricity charges can be allocated to various departments if separate meters are installed, depreciation of machinery can be allocated to various departments as the machines can be identified, salary of stores clerk can be allocated to stores department, cost of coal used in boiler can be directly allocated to boiler house division. Thus allocation is a direct process of identifying overheads to cost units or cost centres. So the term allocation means allotment of whole item of cost to a particular cost centre or cost object without any division.

# Apportionment

Cost Apportionment is the allotment of proportions of items to cost centers. Wherever possible, the overheads are to be allocated. However, if it is not possible to charge the overheads to a particular cost centre or cost unit, they are to be apportioned to various departments on some suitable basis. This process is called as 'Apportionment' of overheads. The basis for apportionment is normally predetermined and is decided after a careful study of relationships

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# COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

between the base and the other variables within the organisation. The Cost Accountant must ensure that the selected basis is the most logical. A lot of quantitative information has to be collected and constantly updated for the purpose of apportionment. The basis selected should be applied consistently to avoid vitiations. However, there should be a periodical review of the same to revise the basis if needed.

In simple words, distribution of various items of overheads in portions to the departments or products on logical or equitable basis is called apportionment.

A general example of various bases that may be used for the purpose of apportionment is shown below:

Overhead item	Basis
Rent and building	Floor space occupied by each department
General Lighting	No. of light points in each department
Telephones	No. of extensions in a department
Depreciation of factory building	Floor space
Material handling	No. of material requisitions or Value of material issued

The above list is not exhaustive and depending upon peculiarities of the organisation, it could be extended. *This allocation and/or apportionment is called as primary distribution of overheads*. Distinction between Allocation & Apportionment

Although the purpose of both allocation and apportionment is identical, i.e to identify or allot the costs to the cost centres or cost unit, both are not the same.

Allocation deals with the whole items of cost and apportionment deals with proportion of items of cost.

Allocation is direct process of departmentalization of overheads, where as apportionment needs a suitable basis for sub-division of the cost.

Whether a particular item of expense can be allocated or apportioned does not depends on the nature of expense, but depends on the relation with the cost centre or cost unit to which it is to be

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

charged.

# **Principles of Apportionment of Overhead Cost**

## (i) Services Rendered

The principle followed in this method is quite simple. A production department which receives maximum services from service departments should be charged with the largest share of the overheads. Accordingly, the overheads of service departments are charged to the production departments.

# (ii) Ability to Pay

This method suggests that a large share of service department's overhead costs should be assigned to those producing departments whose product contributes the most to the income of the business firm. However the practical difficulty in this method is that, it is difficult to decide the most paying department and hence difficult to operate.

## (iii) Survey or Analysis Method

This method is used where a suitable base is difficult to find or it would be too costly to select a method which is considered suitable. For example, the postage cost could be apportioned on a survey of postage used during a year.

## (iv) Efficiency Method

Under this method, the apportionment of expenses is made on the basis of production targets. If the target is exceeded, the unit cost reduces indicating a more than average efficiency. If the target is not achieved, the unit cost goes up, disclosing there by, the inefficiency of the department.

## **Illustration 1**

A factory has 3 production departments (P1, P2, P3) and 2 service departments (S1 & S2). The following overheads & other information are extracted from the books for the month of January 2016.

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COURSE CODE: 16BPU602A



COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

Expense	Amount `
Rent	6,000
Repair	3,600
Depreciation	2,700
Lighting	600
Supervision	9,000
Fire Insurance for stock	3,000
ESI contribution	900
Power	5,400

Particulars	P1	P2	P3	S1	S2
Area sq ft	400	-300	270	150	80
No. of workers	54	48	36	24	18
Wages	18,000	15,000	12,000	9,000	6,000
Value of plant	72,000	54,000	48,000	6,000	
Stock Value	45,000	27,000	18,000		
Horse power of plant	600	400	300	150	50

Allocate or apportion the overheads among the various departments on suitable basis.

# Solution:

The primary distribution of overheads is as

follows:-

Expense	Total	Basis	P1	P2	P3	S1	S2
Rent	6,000	Area sq ft	2,000	1,500	1,350	750	400



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# COURSE CODE: 16BPU602A

## **COURSE NAME: COST AND MANAGEMENT ACCOUNTING**

**UNIT: II** 

**BATCH-2016-2019** 

Rep	air	3,600	Plant value	1,440	1,080	960	120	-
Dep	reciation	2,700	Plant value	1,080	810	720	90	-
Ligh	nting	600	Area sq ft	200	150	135	75	40
Supe	rvision	9,000	No of workers	2,700	2,400	1,800	1,200	900
Fire	Insurance for stock	3,000	Stock value	1,500	900	600	-	
ESI	contribution	900	Wages	270	225	180	135	90
Pow	er KARPAGAM	5,400	Horse power	2,160	1,440	1,080	540	180
Tota	(Deemed to be University) (Established Under Section 3 of UGC Act, 1956)	31,200		11,350	8,505	6,825	2,910	1,610

# **Secondary Distribution of Production Overheads**

After the primary distribution as shown above is over, the next step is to re-distribute the service department costs over the production departments. This also needs to be done on some suitable basis, as there may not be a direct linkage between services and production activity. The products actually do not pass through the service departments. So does it mean that the service cost is not a part of cost of production? It very much is the part of production cost! Hence the loading of service costs onto the production departments is necessary. This process is called secondary distribution of overheads.

The basis for secondary distribution is dependent on:-

- The nature of service given e.g. it may be maintenance department or stores. (i)
- Measurement of service based on surveys or analysis. (ii)
- (iii) General use indices

In the above Illustration No. 1, the costs of S1 (2910) and that of S2 (1610) will have to be loaded on to the totals of P1, P2 and P3.

Some examples of the bases that can be used to distribute cost of different service departments:

Serv	vice department		Basis

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COURSE CODE: 16BPU602A

# COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

Quality	No of inspection done				
Maintenance	No of maintenance calls or				
	Material usage for maintenance or				
	Time spent on maintenance				
Stores	Indirect material cost or				
	No of issue slips or				
	Quantity of material issued or				
	Value of stock handled				
Canteen, welfare	No workers				
Internal transport	No. of trucks or trolleys used or				
	Tonne-miles consumed				
Payroll office	No. of labour hours				
Purchase office	No of purchase orders or				
	Value of material purchased				

Again this is not an exhaustive list and could differ from company to company. Many times percentage estimation is also done for such distribution if the service cannot be measured on the basis of any of the above bases. It may be decided that the cost of S1 is to be distributed as P1-40%, P2-25% and P3-35%. Such arbitrary method should be avoided as far as possible.

## **Methods of Secondary Distribution**

## (a) Direct Distribution Method

This method is based on the assumption that one service department does not give service to other service department/s. Thus between service departments there is no reciprocal service exchange. Hence under this method, service costs are directly loaded on to the production departments. This is simple, but the assumption may not be correct. Can we say that the canteen service is not available to other service departments like labour office or stores or maintenance department? This is incorrect and thus the method should not be used as far as possible.

In the above example consider that if the S1 and S2 costs are to be distributed on assumption of services rendered as S1 to P1- 40%, P2-30% and P2-10% and the S2 costs are on the basis of 5:3:2, then the table for redistribution of S1 and S2 costs over the production departments P1, P2 and P3 will be as given below.

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COURSE CODE: 16BPU602A



**COURSE NAME: COST AND MANAGEMENT ACCOUNTING** 

UNIT: II

BATCH-2016-2019

Department	Total	Basic	P1	P2	P3
Overheads as per primary distribution	26,680		11,350	8,505	6,825
Distribution of S1	2,910	40%;30%;30	1,164	873	873
		%			
Distribution of S2	1,610	5:3:2	805	488	322
Total	31,200		13,319	9,861	8,020

#### (b) Step Distribution Method

This method does away with the assumption made under above method, but only partly. It recognises that a service department may render service to the other service department, but does not receive service from it. In above example, S1 may render services to S2 but not vice versa, i.e. S2 may not render service to S1. In such situation, cost of that service department will be distributed first which render services to maximum number of other service departments. After this, the cost of service department serving the next large number of departments is distributed. This process is continued till all service departments are over. Because it is done in steps, it is called as Step Method of Distribution.

## **Illustration 2**

A manufacturing company has two production departments Fabrication and Assembly and 3 service departments as Stores, Time Office and Maintenance. The departmental overheads summary for the month of March 2016 is given below:

Fabrication	- `24000
Assembly	- `16000
Stores	- `5000
Time office	- `4000
Maintenance	- `3000

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COURSE CODE: 16BPU602A



COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

	Production	departments	Service departments			
Particulars	Fabrication	Assembly	Stores	Time office	Maintenance	
No of employees	40	30	20	16	10	
No of stores requisition slips	24	20			6	
Machine Hours	2400	1600				

Particulars	Total	Basis	Fabrication	Assembly	Time	Stores	Maintenance	1
					office			p
As per primary distribution	52,000	as given	24,000	16,000	4,000	5,000	3,000	0
Time office	4,000	no of employees	1,600	1,200	(4,000)	800	400	r t i

on the costs of service departments to the production departments. Solution:

We will have to determine the sequence in which the service departments should be selected for distribution and the bases on which each of them will be distributed. The following logical bases are decided based on the additional information given:

Time office - No of employees

Stores - No of stores requisitions

Maintenance - Machine hours

Also, it can be easily noticed that the time office serves maximum departments (i.e. both production departments, stores & maintenance departments). Stores serve the next larger number

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COURSE CODE: 16BPU602A



COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

of departments (i.e. both production departments and maintenance department).

Maintenance department serves only production departments. Hence the sequence for distribution will be time office, stores and maintenance. This is shown in the following table:

Stores	5,800	no of req.	2,784	2,320	(5,800)	696
		slips				
Maintenance	4,096	Machine	2,458	1,638		(4,096)
		hours				
		Total	30,842	21,158		

Please notice when we distribute the time office costs first, the charge to stores department is `800. This makes the total cost of stores to be distributed as `5800 (5000+800).Same is the logic for `4096 of Maintenance department.

(c) Reciprocal Service Method: This method takes cognizance of the fact that service departments may actually give as well as receive services from and to the other service departments on reciprocal basis. Such inter-departmental exchange of service is given due weight in the distribution of the overheads. *There are two methods used for distribution under this logic. One is called Repeated Distribution Method and the other Simultaneous Equation Method.* 

(d) **Repeated Distribution Method:** This is a continuous distribution of overhead costs over all departments.

The decided ratios are used to distribute the costs of service departments to the production and other service departments. This is continued till the figures of service departments become 'nil' or 'negligible'.

## **Illustration 3**

The summary as per primary distribution is as follows: Production departments A- 2400; B- 2100 & C- 1500Service departments X - 700; Y- 900

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COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

Expenses of service departments are distributed in the ratios of:

X dept. : A- 20%, B- 40%, C- 30% and Y- 10%

Y dept. : A- 40%, B- 20%, C- 20% and X- 20%

Show the distribution of service costs among A, B and C under repeated distribution method.

#### Solution:

	Produ	ction depart	Service departments		
Particulars	Α	В	С	X	Y
As per primary distribution	2400	2100	1500	700	900
Service dept X	140	280	210	(700)	70
Service dept Y	388	194	194	194	(970)
Service dept X	38.8	77.6	58.2	(194)	19.4
Service dept Y	7.76	3.88	3.88	3.88	(19.4)
Service dept X	0.776	1.552	1.164	(3.88)	0.388
Total	2975.336	2657.032	1967.244	0	0.388

It can be noticed that the undistributed balance in service department is very negligible and thus can be ignored for further distribution

(e) Simultaneous Equations Method: Under this method, simultaneous equations are formed using the service departments' share with each other. Solving the two equations will give the total cost of service departments after loading the inter- departmental exchange of services. These costs are then distributed among production departments in the given ratios.

In the above Illustration No. 3, service dept X gives 10% of its service to Y and receives 20% of Y's service. Let 'x' be the total expenses of dept X (its own + share of Y) and 'y' be the total expenses of dept Y (its own + share of X)

This can be expressed as:

x' = 700 + 20% of 'y' and

y' = 900 + 10% of x'

i.e. x = 700 + 0.2y and



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# COURSE CODE: 16BPU602A

# COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

y = 900 + 0.1x

Multiplying both equations by 10, we get

10x = 7000 + 2y i.e. 10x - 2y = 7000 and

10y = 9000 + x i.e. -x + 10y = 9000

Now multiplying 2nd equation by 10, and then adding the two equations we

get, 98y = 97000

Thus y = 990 and x = 898

Based on this we distribute the service department costs over production departments.

## **Redistribution Statement**

		Department						
		Α	В	С	Х	Y		
Primary Distribution		2400	2100	1500	700	900		
Х		180	359	269	(898)	90		
Y		396	198	198	198	(990)		
	Total	2976	2657	1967	_			

## (f) Trial and Error method

This method is to be followed when the question of distribution of costs of service cost centres which are interlocked among them arises. In the first stage, gross costs of services of service cost centres are determined. In the second stage cost of service centres are apportioned to production cost centres.

## **Limitations of Apportionment**

Whichever method we may use, it still depends on a suitable basis used. The basis will always lead to approximations. If an approximate data is used for analysis, control and decisionmaking, it may cause erroneous results. Thus one has to be careful in relating the cost data to cost centre or cost unit. The natural relation of most of the indirect costs i.e. overheads is to a time period. In other words, almost all overheads are period costs and hence an attempt to link it

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UNIT: II

BATCH-2016-2019

to cost unit will always be arbitrary. As such, the traditional methods of allocation and apportionment are often challenged by many in the industry. The techniques like Marginal Costing owe their origin to such limitations of Traditional Costing.

# **Capacity of Overhead Rate Influence of activity level on overhead rate**

In determination of overhead rate, a good deal depends upon the activity level, which is assumed. In other words, capacity consideration influence overhead rate. Overhead rate will be different at different capacity levels. Efficient utilization of capacity is desirable both for society and management. Following capacity concepts merit consideration for overhead rate determination:-

## **Theoretical or Maximum Plant Capacity**

Maximum Capacity or the Ideal Capacity is the capacity for which plant is designed to operate. It is only Theoretical Capacity. It does not give allowance for waiting, delays and shutdown. The capacity is significant for designing the plant mechanically. For cost considerations, this capacity is not important. Ideal Capacity is never used to determine overhead rates for its disregard to even necessary interruptions in production process.

## **Practical Capacity**

When this capacity is determined, allowance is given for unavoidable interruptions like time lost for repairs, inefficiencies, breakdown, delay in delivery of raw material and supplies, labour shortages and absence, Sunday, holidays, vacation, inventory taking, etc. Thus, Practical Capacity is the maximum Theoretical Capacity with minor unavoidable interruptions. These unavoidable interruptions are based mostly on internal influences and do not consider main external causes like lack of customers orders. The Practical Capacity is determined with reference to nature of industry and circumstances in which a particular factory is situated. Normal unavoidable interruptions account for 15% to 25% of the maximum capacity. The Practical Capacity, thus, ranges between 75% and 85% of maximum capacity after giving allowance for normal unavoidable interruptions.



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COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

## **Normal Capacity**

Idle capacity due to long-term sales trend only is reduced from Practical Capacity to get Normal Capacity. Calculation of Normal Capacity of a plant presents considerable problems. Normal Capacity is determined for the business as a whole. Then, it is broken down by plants and departments. For Normal Capacity determination, prime considerations are physical capacity and average sales expectancy. It should be noted that average sales expectancy to be considered for this purpose takes into account a period enough to level out cyclical fluctuations. The determination of Normal Capacity helps in: i) the preparation of flexible budgets and computation of predetermined factory overhead rates. Ii) the use of Standard Costing, iii) estimating sales price etc., iv) scheduling production, v) inventory valuation, vi) determination of breakeven point, vii) controlling costs.

## **Importance of determining Normal Capacity**

The Normal Capacity considerations are important for:

- (a) budget preparation;
- (b) determination of overhead rate;
- (c) determination of standard cost, and
- (d) preparation of operation of operational plans.

For determining the Normal Capacity, machinery purchased for future use and outmoded machinery should be excluded for consideration.

#### **Capacity based on Sales Expectancy**

Capacity may be based on sales expectancy for the year. The distinction between Normal Capacity and capacity based on sales expectancy should be properly understood. While Normal Capacity considers the long-term trend analysis of sales, which is based on sales of a cycle of years, the capacity based on sales expectancy is based on sales for the year only. When long-term sales trends are determined, cycle of years long enough to even out cyclical fluctuations is considered. Capacity based on sales expectancy is influenced more by general economic conditions and forecast of industry than long term sales trends. The main advantages of

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

determining overhead rate based on sales expectancy are

i) Overhead rate is linked with actual sales expectancy, ii) Overhead costs are adequately spread over the production and iii) Overhead rate determined for this purpose is very useful for making decisions like price fixation, etc.

# **Idle Capacity and Excess Capacity**

Practical Capacity is determined after giving allowance to unavoidable interruptions like time lost for repairs, inefficiencies, breakdown and labour shortage, etc., Even this Practical Capacity is not normally fully achieved. Some losses due to idleness of workers and plant facilities to occur even in most carefully administered companies. These losses are not taken into account for determining the Practical Capacity, because for the purpose of determining Practical Capacity only unavoidable interruptions are considered. Thus, the difference between Practical Capacity and Normal Capacity, i.e., the capacity based on long-term sales expectancy is the Idle Capacity. However, if Actual Capacity happens to be different from capacity based on sales expectancy, the idle capacity will represent difference between Practical Capacity and Actual Capacity. Idle Capacity is that part of Practical Capacity which is not utilized due to factors like temporary lack of orders, bottlenecks and machine breakdown, etc. Idle Capacity represents unused productive potential, which fails to be realized due to interruptions that are not unavoidable. Idle capacity is that part of Practical Capacity which is not utilized due to irregular interruptions.

Idle Capacity is different from Excess Capacity. Idle Capacity refers to temporary idleness of available resources due to irregular interruptions. Excess Capacity results either from managerial decision to retain larger production capacity or from unbalanced equipment or machinery within departments. Excess Capacity refers to that portion of Practical Capacity which is available, but no attempt is made for its utilization for strategic or other reasons. If the Excess Capacity results from purchase of assets not required, it will be a prudent policy for company to dispose of the assets which cause Excess Capacity. Alternatively, action should be taken for utilization of resources in the form of Excess Capacity. Excess Capacity also results

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### COURSE NAME: COST AND MANAGEMENT ACCOUNTING

**UNIT: II** 

BATCH-2016-2019

from imbalance or bottlenecks in certain departments. This situation can be remedied by attempting synchronization in the working of various departments, working overtime, running double shift and temporary off-loading to departments having spare capacity. While overhead

rate includes cost of Idle Capacity, Excess Capacity is excluded from overhead rate consideration.

Idle time is distinguished from Idle Capacity and its cost is separated in the accounts. Idle time represents lost time of men and machines arising from lack of business or of material, a breakdown of equipment, faulty supervision or other similar causes whether avoidable on not. Idle Capacity is the difference between Practical Capacity and Actual Capacity and represents the unused production potential.

Idle Capacity costs are represented mostly by the fixed charges of owing and maintaining plant and equipment and of employing services, which are not used to their maximum potential. The principal causes of idle capacity are:

#### **Production Causes**

These causes primarily result from poor organization of operational plan. Following production causes often lead to Idle Capacity:-

- (a) Repetitive machine adjustment i) Setup and change-over. ii) Repairs and adjustment.
- (b) Lack of materials or tools -i) Internal ii) External
- (c) Lack of supervision, inspection and instruction.
- (d) Lack of power i) Internally produced. ii) Externally produced

# Administrative Causes:

Sometimes various administrative decisions taken at various level of management result in Idle Capacity. Major administrative causes that lead to Idle Capacity are: a) Excess plant for anticipated expansion,

b) Special machines prepared for particular jobs, and c) Strikes / Lockouts.

#### **Economic Causes**

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UNIT: II

BATCH-2016-2019

Sometimes demand for the goods is seasonal as in case of wool, ice cream and furs and production cannot be evenly distributed. This is especially true, when there exists danger of deterioration of the product or where carrying charges for stock are too large. Thus, seasonal, cyclical and industrial causes also lead to Idle Capacity.

Various practices are followed in different companies for disposing of Idle Capacity cost. It is often agreed in principle that normal production losses should be absorbed in product costs. Abnormal losses should be treated as non-operating expenses in product costs. Abnormal losses should be treated as non-operating expenses by direct debit to Profit and Loss Account. Certain companies follow the practice of computing idle time costs on their leading products by use of statistical techniques. Cost Accountants should particularly analyse the reasons for idle plant and equipment not used during the period for non-con-controllable causes. The review of practices of different companies reveals that Idle Capacity is a somewhat flexible concept. It is an individual problem which should be considered after taking into account the special situations. For the growth and survival of the organisation, the management is keenly interested to know the idleness, its causes, its cost and its available remedies. Normally different companies follow a bit varying restricted accounting concept of Idle Capacity. In many cases unabsorbed fixed overhead represents losses due to managerial decisions and it becomes a subjective matter to refer it as idle capacity cost. Overhead rates of different capacity levels will be different due to influence of fixed overhead.

#### **Absorption of Overheads**

Once the steps of primary and secondary distribution are carried out, what we get is total indirect costs of production departments. The next step is to assign these totals to the individual product units. A job or a product passes through all or many production departments before it is formed into a finished saleable product. It is necessary to know the cost of each department it passes through per unit. The absorption of overhead enables a Cost Accountant to recover the overhead cost spent on each product department through each unit produced. Overhead absorption is also known as levy or recovery of overheads. How is this done? Suppose in turning

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#### COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

department a total of 1200 tubes are turned and the cost of turning department overheads (after secondary distribution) are `72000, then can we say the cost of turning per tube is `6/-? Most probably yes. This `6 per unit is called as *Overhead Absorption Rate*.

# Absorption means 'recording of overheads in Cost Accounts on an estimated basis with the help of a predetermined overhead rate, which is computed at normal or average or maximum capacity'

In general, the formula for overhead absorption rate is give as:-

Overhead Rate = Amount of Overhead / No of units of the base

Overhead Absorption Rates: For the purpose of absorption of overhead in costs of jobs, processes, or products overhead rates related to suitable factors or bases to be determined. There are several methods in use for determining the overhead rates i.e Actual or Predetermined Overhead Rate, Blanket or Multiple Rates.

#### **Actual Overhead Rate**

Actual Overhead Rate is obtained by dividing the overhead expenses incurred during the accounting period by actual quantum on the base selected. Assuming that the rates are worked out on a monthly basis the formula is:-

Overhead Rate = Actual overhead during the month  $\div$  Value/Quantity of the base during the month Absorption of overheads based on actual rates may not be adopted due to the following reasons:-

- (a) Actual overhead rate can be computed only after the accounting period is over.
- (b) The incidence of some of the items of expenses like repairs, overhauling, etc is not uniformly spread over all the accounting periods.
- (c) Actual overhead rates do not provide any basis for cost control.

#### **Pre-determined Overhead Rate**

Predetermined Rate is computed by dividing the budgeted overhead expenses for the accounting period by the budgeted base (quantity, hours, etc)

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COURSE CODE: 16BPU602A

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UNIT: II

```
BATCH-2016-2019
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Overhead Rate= Budgeted overhead expenses for the period / Budgeted Base for the

period

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#### **Advantages of Predetermined Overhead Rate**

- (a) Enables prompt preparation of cost estimates, quotations and fixation of selling prices.
- (b) Cost data is available to management along with financial data.
- (c) In case of Cost –plus contracts prompt billing is possible through pre-determined recovery rates.
- (d) In concerns having budgetary control system, no extra clerical efforts are required in computing the pre-determined overhead rate.

#### **Blanket (Single) Overhead Rate**

A single overhead rate for the entire factory may be computed for the entire factory. So this is known as factory wide or Blanket Overhead Rate Method.

Blanket Rate = Overhead Cost for the factory / Total Quantum of the base.

Blanket Rate of overheads may be applied suitable in a small size concerns. Blanket Rates are easy to compute. The use of Blanket Rate of overheads gives erroneous and misleading results, where several products passing through number of different departments. With Blanket Rate of overhead, satisfactory level of managerial control is not possible.

#### **Multiple Rates:**

This method is most commonly used to determine the multiple overhead rates, i.e separate rates:

- (a) For each producing department;
- (b) For each service department;
- (c) For each Cost Centre; and
- (d) For each product line.

The multiple rates are worked out according to the below formula:

Overhead Rate = Overhead cost allocated & apportioned to each product, dept / Corresponding Base

The number of overhead rates a firm may compute would be fixed taking into

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

consideration of two opposing factors viz clerical costs involved and the degree of accuracy level desired.

#### **Production Unit Method**

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Simply put the concept here is to average out the total overheads on total units produced. In a tube manufacturing unit the total overheads are `72000 and total tubes processed are 12000. The overhead absorption rate is: 72000/12000 i.e. `6 per tube. If this rate is based on the budgeted costs and number of units, and if the factory now gets an order for 2500 tube processing, the amount of production overheads to be charged to that order will be (2500 \* 6) i.e. `15000/-

#### **Percentage of Direct Wages**

Under this method, overhead for a job is recovered on the basis of a predetermined percentage of direct wages. This method is used when the component of direct wages is higher. If the overhead to be absorbed is `120000 and the direct wages are estimated at `800000, the predetermined rate will be calculated as (120000/800000) i.e. 15%. If a job is received where direct wages are estimated at `9000/-then the production overheads to be absorbed will be 15% of `9000 i.e. `1350 This method is useful if the direct labour hours can be standardised and the labour rates do not fluctuate too much. However, this method ignores the contribution made by other resources like machinery. The method also ignores the fact that there may be different types or grades of workers and each may cost differently. It also sidelines the fact that most of the production overheads are time-related.

#### **Percentage of Direct Material Cost**

Here the absorption rate is expressed as a percentage of direct material cost. This method is useful when the proportion of material cost is very high and that of labour cost is comparatively negligible. It is useful if material grades and rates do not fluctuate too much. If production overhead to be absorbed is `2000 and the material cost is expected to be `4000, then the absorption rate will be (2000/4000) i.e. Thus 50% of direct material cost. Thus for a job



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COURSE CODE: 16BPU602A

#### COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

requiring direct material of `200, the production overheads to be absorbed will be `100 i.e. 50% of `200. However, many overhead items bear no relationship with material cost, and also the fact of time dimension of overheads is not taken into account by this method.

#### **Percentage of Prime Cost**

This method combines the benefits of direct wages and direct material cost methods as

we know prime cost means direct material plus direct wages plus direct expenses. This method could be used when prime cost constitutes a major proportion of the cost and the rates of material & labour are stable. It is needed that the product made is standard product. If the prime cost is expected to be `50000 and the production over heads are estimated at `2500, then the absorption rate will be 5% of prime cost. If a job has a prime cost of `800, then overhead absorbed on that job will be `40/-

#### **Direct Labour Hour**

Under this method, the absorption rate is calculated by dividing the overhead amount by the actual or predetermined direct labour hours. This is extremely useful when the production is labour intensive. This method is superior to the earlier ones, because it takes cognizance of the time factor. If the direct labour hours for a month amount to 10000 and the overheads to be absorbed are `5000, then the absorption rate is `0.50 per hour (i.e. 5000/10000). If a job is going to require a labour time of 250 hours, the production overheads to be loaded on the job will be `125 (i.e. 250 \* 0.50). The data related to labour hours has to be properly collected or estimated. The labour hour rate may be calculated as a single rate or different for different group of workers.

#### **Machine Hour Rate**

In the days of mechanised production processes, the most relevant rate to be applied is the machine hour rate. This is the rate calculated by dividing the actual or budgeted overhead cost related to a machine or a group of machines by the appropriate number of machine hours.

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#### **COURSE NAME: COST AND MANAGEMENT ACCOUNTING**

UNIT: II

**BATCH-2016-2019** 

These hours could be actual hours or budgeted hours. When budgeted hours are used they are taken at average capacity at which a factory normally operates. You cannot take full capacity hours as the factory may not operate at that level and then the absorption rate may be unnecessarily fixed at a lower level. The overheads in a highly mechanised factory are mostly related to the number of hours a machine runs. Hence this is supposed to be the best method for absorbing overhead costs into the cost unit. If a machine normally runs for 2000 hours in a month and monthly overheads to be absorbed are `15000, then the machine hour rate will be calculated as (15000/2000) i.e. `7.50 per machine hour. If a job take 75 hours on that machine, then `562.50 (75 \* 7.5) will have to be loaded as cost of using the machine for that job.

A machine hour rate may be calculated using only those overheads which are directly related to the machine e.g. power, fuel, repairs, maintenance, depreciation etc. These expenses are totalled and then divided by the hours to compute the rate. This is called as *Ordinary Machine Hour Rate*. Whereas, if costs not related to machine are also included (e.g. supervision, rent, lighting, heating etc.) for the rate calculation, such rate is called as *Composite Machine Hour Rate*. While calculating machine hour rate, the wages paid to machine operators may be added to the total costs. This is because these operators directly work on the machines & thus related to machine operation. At times a factory may have more than one similar machines simultaneously working. In such case, *a group machine hour rate* may be calculated.

#### Factors influencing the selection of Overhead Recovery Rate

The particular method or methods selected for application in a company would depend upon the factors mentioned below. Selection of the most equitable method is of paramount importance since a method that is not suitable will distort costs and thus make them useless for control and decision making purpose.

Selection of Overhead Recovery Rates depends on the following factors:-

- (a) Nature of the product and process of manufacture.
- (b) Nature of overhead expenses.
- (c) Organisational set-up of the undertaking into departments and or cost centers.

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UNIT: II

BATCH-2016-2019

- (d) Individual requirements with regard to the circumstances prevailing.
- (e) Policy of the management.
- (f) Accuracy vis-a-vis cost of operating the method. Some of the methods are comparatively more accurate and provide equitable bases for overhead absorption.

The main features of a satisfactory overhead rate are as follows:-

- (a) Simple, easy to operate, practical and accurate;
- (b) Economic in application;
- (c) Fairly stable so that cost from period to period does not vary;
- (d) Related to time factor as far as practical;
- (e) Departmental rates are preferable to blanket rates;
- (f) Area of activity selected for computation of the rate should be homogeneous cost unit;
- (g) Base for the rate should lay stress on the main production element of the concern.

#### **Under-absorption and Over-absorption of Overhead**

The amount of overhead absorbed in costs is the sum total of the overhead costs allotted to individual cost units by application of the overhead rate. When a predetermined rate worked out on the basis of anticipated or budgeted overhead and base is applied to the actual base, the amount absorbed may not be identical with the amount of overhead expenses incurred if either the actual base or the actual expenses or both deviate from the estimates or the budget.

If the amount absorbed is less than the amount incurred , which may due to actual expenses exceeding the estimate and / or the output or the hours worked may be less than the estimate, the difference denotes under-absorption.

On the other hand if the amount absorbed is more than the expenditure incurred, which may be due to the expense being less than estimate and / or the output or hours worked may be exceeding the estimate, this would indicate over-absorption, which goes to inflate the costs. Under or over absorption of overhead may arise due to one or the other of the causes given below:-

(a) Error in estimating overhead expenses.

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

- (b) Error in estimating the level of production, i.e the base.
- (c) Major unanticipated changes in the methods of production.
- (d) Unforeseen changes in the production capacity.
- (e) Seasonal fluctuations in the overhead expenses from period to period.
- (f) Overhead rate may be applied to the Normal Capacity which may be less than the full operating capacity of the undertaking.

How does one deal with the situation of over or under absorption. There are three ways to handle

- it:
- (a) Write-off (in case of under absorption) or write back (in case of over-absorption) to the P & L Account. This treatment is valid if most of the overhead items are related to time.
- (b) Carry forward to the next period through a reserve account. This method is not recommended on the logic that it is inconsistent with Accounting Standards.
- (c) Use of supplementary rates to adjust the effect to the cost of sales, finished stocks and Work in Process stocks. This sounds logical as it does not carry forward the unabsorbed or over absorbed overheads to the next accounting period entirely. It aims at splitting the total effect between the cost of sale (which is charged to current year's profits) and stocks (which get carried forward to the next year).

#### **Illustration 4**

Overhead incurred	`1,50,000
Overhead recovered	` 1,00,000
Cost of sales	`10,00,000
Finished goods	` 8,00,000
Work in process	` 7,00,000

#### Solution:

Here, the overheads under-absorbed are (1,50,000-1,00,000) `50,000.

Total of Cost of sales, FG stock & WIP is `25,00,000

The supplementary rate will be 50,000/25,00,000 i.e. `0.020

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UNIT: II

BATCH-2016-2019

This will be distributed as:

20,000 to cost of sales (i.e. 10,00,000 x 0.020)

`16,000 to FG stock (i.e. 8,00,000 x 0.020) and

`14,000 to WIP (i.e. 7,00,000 x 0.020)Reporting of overhead costs:

#### **Presentation:**

- Overheads shall be presented as separate cost heads like production, administration and marketing.
- Element wise and behavior wise details of the overheads shall be presented, if material.
- Any under-absorption or over-absorption of overheads shall be presented in the reconciliation statement.

#### **Disclosure:**

- The basis of assignment of overheads to the cost objects.
- Overheads incurred in foreign exchange.
- Overheads relating to resources received from or supplied to related parties
- Any Subsidy / Grant / Incentive or any amount of similar nature received / receivable reduced from overheads.
- Credits / recoveries relating to the overheads.
- Any abnormal cost not forming part of the overheads.
- Any unabsorbed overheads.

#### **Illustration 5**

In an Engineering Factory, the following particulars have been extracted for the quarter ended 31st December, 2015. Compute the departmental overhead• rate for each of the production departments, assuming that overheads are recovered as a percentage of direct wages.

Produ	ction Depts.		Service Depts.	
A	В	С	X	Y



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#### COURSE CODE: 16BPU602A

## COURSE NAME: COST AND MANAGEMENT ACCOUNTING

ction 3 of UGC Act, 1956)

UNIT: II

BATCH-2016-2019

Direct Wages (`)	30,000	45,000	60,000	15,000	30,00 0	
Direct Material	15,000	30,000	30,000	22,500	22,50 0	
No. of workers	1,500	2,250	2,250	750	750	
Electricity KWH	6,000	4,500	3,000	1,500	1,500	
Assets Value	60,000	40,000	30,000	10,000	10,00	
No. of Light points	10	16	4	6	4	
Area Sq. Yards	150	250	50	50	50	
The expenses for the perio	od were:					
		<b>`</b>				
Power		1,100				
Lighting		200				
Stores Overhead		800				
Welfare of Staff		3,000				
Depreciation		30,000				
Repairs		6,000				
General Overheads		12,000				
Rent and Taxes		550				
L					1	

Apportion the expenses of Service Dept. Y according to direct wages and those of Service

Department X in the ratio of 5: 3 : 2 to the production departments.

Solution:

Statement showing apportionment of overheads and computation of OH rates:

Particulars	Basis	Total (`)	<b>A</b> (`)	<b>B</b> (`)	<b>C</b> (`)	<b>X</b> (`)	<b>Y</b> (`)



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#### COURSE CODE: 16BPU602A

#### COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

Material	Actual	45,000				22,500	22,500
Wages	Actual	45,000				15,000	30,000
Power	KWH (4:3:2:1:1)	1,100	400	300	200	100	100
Lighting	Light Points (5:8:2:3:2)	200	50	80	20	30	20
Stores overhead	Materials (2:4:4:3:3)	800	100	200	200	150	150
Welfare of staff	No. of workers (2:3:3:1:1)	3,000	600	900	900	300	300
Depreciation	Assets Value (6:4:3:1:1)	30,000	12,000	8,000	6,000	2,000	2,000
Repair	Assets Value (6:4:3:1:1)	6,000	2,400	1,600	1,200	400	400
General Over- heads	Direct Wages (2:3:4:1:2)	12,000	2,000	3,000	4,000	1,000	2,000
Rent & Taxes	Area (3:5:1:1:1)	550	150	250	50	50	50
	¢	1,43,650	17,700	14,330	12,570	41,530	57,520
Costs of 'X'	5:3:2		20,765	12,459	8,306	(41,530)	
Costs of 'Y'	2:3:4		12,782	19,173	25,565		(57,520)
			51,247	45,962	46,441		

Overhead Rate as % on direct wages

 $A = [51,247/30,000] \times 100 =$ 

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COURSE CODE: 16BPU602A

#### COURSE NAME: COST AND MANAGEMENT ACCOUNTING

**UNIT: II** 

BATCH-2016-2019

170.82% B = [45,962/45,000] x 100 = 102.14% C = [46,441/60,000] x 100 = 77.40%

#### **llustration 6**

The New Enterprises Ltd. has three producing departments A,B and C two service Departments D and E. The following figures are extracted from the records of the Co.

Rent and Rates	5,000
General Lighting	600
Indirect Wages	1,500
Power	1,500
Depreciation on Machinery	10,000
Sundries	10,000

The following further details are available:

	A	В	С	D	E
Floor Space (Sq.Mts.)	2,000	2,500	3,000	2,000	500
Light Points	10	15	20	10	5
Direct Wages	3,000	2,000	3,000	1,500	500
H.P. of machines	60	30	50	10	
Working hours	6,226	4,028	4,066		
Value of Material	60,000	80,000	1,00,000		
Value of Assets	1,20,000	1,60,000	2,00,000	10,000	10,000

The expenses of D and E are allocated as follows:

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COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: II

BATCH-2016-2019

	А	В	С	D	Е
D	20%	30%	40%		10%
E	40%	20%	30%	10%	

What is the factory cost of an article if its raw material cost is `50, labour cost `30 and it passes through Departments A, B and C. For 4, 5 & 3 hours respectively.

#### Solution:

#### Statement showing apportionment of overheads to departments

Particulars	Basis	Total (`)	A (`)	<b>B</b> (`)	<b>C</b> (`)	<b>D</b> (`)	<b>E</b> (`)
Rent & Rates	Space						
	(4:5:6:4:1)	5,000	1,000	1,250	1,500	1,000	250
Lighting	Light Points						
	(2:3:4:2:1)	600	100	150	200	100	50
Indirect wages	Direct wages						
	(6:4:6:3:1)	1,500	450	300	450	225	75
Power	Horse Power						
	(6:3:5:1)	1,500	600	300	500	100	
Depreciation	Value of Asset						
	(12:16:20:1:1)	10,000	2,400	3,200	4,000	200	200
Sundries	Direct wages						
	(6:4:6:3:1)	10,000	3,000	2,000	3,000	1,500	500
Wages	Actual	2,000				1,500	500
		30,600	7,550	7,200	9,650	4,625	1,575

#### **Repetitive Distribution Method**

Particulars	Α	В	С	D	Ε
Totals	7,550	7,200	9,650	4,625	1,575
Cost of D (2:3:4:1)	925	1,387	1,850	(4,625)	463
	8,475	8,587	11,500		2,038
Cost of E (4:2:3:1)	815	408	611	204	(2,038)
	9,290	8,995	12,111	204	
Cost of D (2:3:4:1)	41	61	82	(204)	20

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#### COURSE CODE: 16BPU602A



**COURSE NAME: COST AND MANAGEMENT ACCOUNTING** 

UNIT: II

BATCH-2016-2019

	9,331	9,056	12,193		20
Cost of E (4:2:3:1)	8	4	6	2	(20)
	9,339	9,060	12,199	2	
Cost of D (2:3:4:1)		1	1	(2)	
	9,339	9,061	12,200		
Working Hours	6,226	4,028	4,066		
Rate per hour	1.5	2.25	3.00		

#### **Illustration 7**

The following information relates to the activities of a production department of factory for a

certain period.

	,
Material used	36,000
Direct Wages	30,000
Labour hours	12,000
Hours of Machinery-operation	20,000
Overhead Chargeable to the Dept	25,000

On one order carried out in the department during the period the relevant data were:-

Material used (`)	6,000
Direct Wages (`)	4,950
Labour hours worked	1,650
Machine Hours	1,200

Calculate the overheads chargeable to the job by four commonly used methods.

#### Solution:

The four commonly used methods of absorbing or recovering overheads are as follows:

- 1. % of overheads on material =  $(25,000 / 36,000) \times 100 = 69.44\%$
- 2. % of overheads on direct wages =  $(25,000 / 30,000) \times 100 = 83.33\%$
- 3. Overhead rate per labour hour = 25,000 / 12,000 2.083
- 4. Machine hour rate method = 25,000 / 20,000 = 1.25

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**COURSE NAME: COST AND MANAGEMENT ACCOUNTING** 

UNIT: II

BATCH-2016-2019

The overheads chargeable to job under the above methods is as follows:

- 1. Material =  $6,000 \ge 69.44\% = 4,166.40$
- 2. Wages =  $4,950 \ge 83.33\% = 4,125$
- 3. Labour hour rate =  $1650 \times 2.083 = 3,437$
- 4. Machine hour rate =  $1,200 \ge 1.25 = 1,500$

#### **POSSIBLE QUESTIONS**

## PART A (ONE MARKS – ONLINE EXAMINATION

#### PART B (2 MRKS)

- 1. Write a short note on allocation
- 2. Explain absorption of overheads.
- 3. Define Overheads
- 4. Explain over and Under absorption
- 5. What are the source documents for collection of overheads?
- 6. Write a short note on Manufacturing overheads
- 7. What are the different types of Department in Manufacturing Concern.
- 8. Explain administration Overheads
- 9. Write a short note on normal capacity

#### PART C (6 MARKS)

- 1. Discuss the types of department.
- 2. In a factory there are three Production Department P1, P2, P3 and one service department S1. The following figures are available for one month of 25 working days of 8 hours each day. All the department work all these days with full attendance,

Expenses	Total	Service	Production	Production	Production
	Rs	Dept	Dept P1	Dept P2	Dept P3
		<b>Š</b> 1	Rs	Rs	Rs
		Rs			
Power and Lighting	1,100	240	200	300	360
Supervisor Salary	2,000	-	-	-	-

CLASS: III B.COM BPS

#### COURSE CODE: 16BPU602A



**COURSE NAME: COST AND MANAGEMENT ACCOUNTING** 

UNIT: II

#### BATCH-2016-2019

Rent	500	_	_	_	_
Walford	600				
wenale	000	-	-	-	-
Others	1,200	200	200	400	400
Total	5,400				
Supervisor Salary		20%	30%	30%	20%
Number of Workers		10	30	40	20
Floor area in Sq.Meters		500	600	800	600
Service rendered by service		-	50%	30%	20%
Dept to Production					
department					

Calculate Labour Hour for each department P1, P2 and P3

- 3. Explain the principles of apportionment of overhead costs.
- 4. XYZ manufactures households pumps which pass through 3 departments expenses are as follows.

	Foundry Rs	Machine Shop Rs	Assembling Rs	Total Rs
Direct Wages	10,000	50,000	10,000	70,000
Work Overheads	5,000	90,000	10,000	1,05,000

The factory cost of manufacturing type C pumps was prepared by the company as follows:

	Rs	Rs
Materials		16
Direct wages		
Foundry	2	
Machine Shop	4	
Assembling	2	
		8
Work Overheads (150% of direct wages )		12
Total Cost		36

It seems that there is some fallacy. Find out the proper expenses of XYZ Company. 5. From the information, find the profit made by each product, appropriating joint-costs

on the sale-value basis

Joint – Cost :	Rs.
Direct Materials	1,26,000
Power	25,000
Petrol, Oil, Lubricants	5,000
Labour	7,500
Other Charges	4,100

CLASS: III B.COM BPS

#### COURSE CODE: 16BPU602A

#### **COURSE NAME: COST AND MANAGEMENT ACCOUNTING**



UNIT: II

BATCH-2016-2019

	Product X	<b>Product Y</b>		
Selling Costs	Rs. 20,000	Rs. 80,000		
Sales	Rs. 1,52,000	Rs. 1,68,000		

6. Product A is obtained after it passes through three distinct processes. 2,000 kgs. Of material at Rs. 5 per Kg. were issued to the process I. Direst wages amounted to Rs. 900 and production overhead incurred was Rs. 500. Normal loss is estimated at 10 % of input. This wastage is sold at Rs. 3 per kg. the actual output is 1,850 kgs.

Prepare Process I Account and the Abnormal Gain or Abnormal Loss Account as the case may be.

7. You are supplied with the following information and required to work out the production hour rate of recovery of overhead in departments A, B and C

Particulars	Total	Production Depts.			Service	e Depts.
	( <b>Rs.</b> )	A (Rs.)	<b>B</b> ( <b>Rs.</b> )	C (Rs.)	<b>P</b> ( <b>Rs.</b> )	<b>Q</b> ( <b>Rs.</b> )
Rent	12,000	2,400	4,800	2,000	2,000	800
Electricity	4,000	800	2,000	500	400	300
Indirect Labour	6,000	1,200	2,000	1,000	800	1,000
Depreciation	5,000	2,500	1,600	200	500	200
Sundries	4,500	910	2,143	847	300	300
Total	31,500	7,810	12,543	4,547	4,000	2,600
Estimated Working H	Iours	1,000	2,500	1,400		

Expenses of Service Departments P and Q are apportioned as under :

	А	В	С	Р	Q
Р	30 %	40 %	20 %	-	10 %
Q	10 %	20 %	50 %	20 %	-



CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III B.

BATCH-2016-2019

#### UNIT III

Analysis and Interpretation of Financial Statements- Meaning – types of financial analysis – comparative statements – common size statements, - trend analysis. Ratio Analysis, meaning, objective, limitation, classification, computation and interpretation, liquidity, leverage Activity and profitability ratio. Return on capital employed computation and uses

#### **MEANING AND TYPES OF FINANCIAL STATEMENTS**

A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a balance sheet, or may reveal a series of activities over a given period of time, as in the case of an IncomeStatement.

Thus, the term 'financial statements' generally refers to two basic statements: (*i*) the Inco me Statement and (*ii*) the Balance Sheet. A business may also prepare (*iii*) a Statement of Retained Earnings, and (*iv*) a Statement of Changes in

Financial Posit ion in addit ion to the above two statements.

The meaning and significance of each of these statements is being explained below:

#### **1.Income Statement**

The Inco me statement (also termed as Profit and Loss Account) is generally considered to be the most useful of all financial statements. It explains what has



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Income Statement Balance Sheet Statement of Retained

Statement of Changes in Financial Position

happened to a business as a result of operations between two balance sheet dates. For this purpose it matches the revenues and costs incurred in the process of earning revenues and shows the net profit earned or less suffered during a particular period.

The nature of the 'Inco me' which is the focus of the Inco me Statement can be well understood if a business is taken as an organizat ion that uses 'inputs' to'produce' output. The outputs are the goods and services that the business provides to its customers. The values of these outputs are the amounts paid by the customers for them. These amounts are called 'revenues' in account ing. The inputs are the economic resources used by the business in providing these goods and services. These are termed as 'expenses' in accounting.

#### 2. Balance Sheet

It is a statement of financial posit ion of a business at a specified moment of time. It represents all assets owned by the business at a particular moment of time and the claims of the owners at outsiders against those assets at that time. It is in a way a snapshot of the financial condition of the business at that time.

The important dist inct ion between an inco me statement and a Balance Sheet is that the Inco me Statement is for a period while Balance Sheet is on a part icular date. Income Statement is, therefore, a flow report, as contrasted with the Balance Sheet which is a static report. However both are complementary to each other.

#### 3. Statement of Retained Earnings

The term retained earnings means the accumulated excess of earnings over losses and dividends. The balance shown by the Income Statement is transferred to



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the Balance Sheet through this statement, after making necessar y appropriations. It is thus a connecting link between the

Balance Sheet and the Inco me Statement. It is fundamentally a display of things that have caused the beginning of the period retained earnings balance to be changed into the one shown in the end- of the period balance sheet. The statement is also termed as Profit and Loss Appropriat ion Account in case of companies.

#### 4. Statement of Changes in Financial Position (SCFP)

The Balance Sheet shows the financial condit ion of the business at a particular moment of t ime while the Inco me Statement discloses the result s o f operations of business over a period of t ime. However, for a better understanding of the affairs of the business, it is essent ial to ident ify the movement of working capita l or cash in and out of the business. This informat ion is available in the statement of changes in financial posit ion o f the business. The statement may emphasize any of the following aspects relating to change in financial posit ion of the business:

- i. **Change in working capital position**. In such a case the statement is termed as SCFP (Working Capital basis) or popularly Funds Flow Statement.
- ii. **Change in cash position.** In such a case the statement is termed as SCFP (Cash basis) or popularly Cash Flow Statement.
- iii. **Change in overall financial position.** In such a case the statement is termed simply as Statement of Changes in Financial Position (SCFP).

#### ANALYSIS AND INTER PRETATION OF FINANCIAL STATEMENTS

Financial Statements are indicators of the two significant factors:

- i Profitabilit y, and
- **i** Financial soundness



CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

UNIT: III

BATCH-2016-2019

Analysis and interpretation of financial statements, therefore, refers to such a

COURSE NAME: COST AND MANAGEMENT ACCOUNTING

treatment of the informat ion contained in the Income Statement and the Balance

Sheet so as to afford full diagnosis of the profitabilit y and financial soundness of the business.

A dist inct ion here can be made between the two terms - 'Analysis' and

interpretation". The term' Analysis' means methodical classificat ion of the data given in the financial statements. The figures given in the financial statements will not help one unless they are put in a simplified form. For example, all items relat ing to 'Current It Assets' are put at one place while all items relat ing to 'Current Liabilit ies' are put at another place. The term 'Interpretation' means explaining the meaning and significance of the data so simplified. However, both' Analysis' and 'Interpretation' are complementary to each other.

Interpretation requires Analysis, while Analysis is useless without Interpretation. Most of the authors have used the term' Analysis' only to cover the meanings of both analysis and interpretation, since analysis invo lves

interpretation. According to Myres, "Financial statement analysis is largely a study of the relat ionship among the various financial factors in a business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements." For the sake of convenience, we have also used the term 'Financial Statement Analysis' throughout the chapter to cover both analysis and interpretation. '

TYPES OF FINANCIAL ANALYSIS

Financial Analysis can be classified into different categories depending upon

(i)

the material used, and (ii) the modus operandi of analysis.

1. On the Basis of Material Used

According to this basis, financial analysis can be of two types:

(i) ) External Analysis.



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This analysis is done by those who are outsiders for the business. The term outsiders include investors, credit agencies, government agencies and

other creditors who have no access to the internal records of the company. These persons mainly depend upon the published financial statements. Their analysis serves only a limited purpose. The posit ion o f, these analysts has improved in recent times on account of increased governmental control over companies and governmental regulat ions requiring more detailed disclosure o f informat ion by the companies in their financial statements.

#### () ) Internal Analysis.

This analysis is done by persons who have access to the books of account and other informat ion related to the business. Such an analysis can, therefore, be done by execut ives and employees of the organizat ion or by officers appointed for this purpose by the Government or the Court under powers vested in them. The analysis is done depending upon the objective to be achieved through this analysis.

#### 1. On the basis of modus operandi

According to this, financial analysis can also be of two types:

(i) Horizontal Analysis. In case of this t ype of analysis, financial statements for a number of years are reviewed and analyzed. The current year's figures are compared with the standard or base year. The analys is state ment us ually contains figures for two or more years and the changes are shown regarding each item from the base year usually in the form of percentage. Such an analysis gives the management considerable insight into levels and areas of strength and weakness. Since this t ype of analysis is based on the data from year to year rather than on one date, it is also tern as 'Dynamic Analysis'.

(i) Vertical Analysis. In case of this t ype of analysis a study is made of the quant itative relationship of the various items in the financial Statements on a particular date. For example, the rat ios of different items of costs for a particular period may be calculated with the sales



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for that period. Such an analysis is useful in comparing the performance of several companies in the same group', or divisions or department in the same company. Since this analysis depends on the

data for one period, this is not very conducive to a proper analysis of the company's financial posit ion. It is also called 'Static Analysis' as it is frequent ly used for referring to ratios developed on one date or for one accounting period.

It is to be noted that both analyses- vert ical and horizontal-can be done simultaneously also. For example, the Income Statement of a company for several years may be given. Horizontally it may show the change in different elements of cost and sales over a number of years. On the other hand, vertically it may show the percentage of each element of cost to sales.

## STEPS INVOLVED IN FINANCIAL STATEMENTS ANALYSIS

The analysis of the financial statements requires:

- () Methodical classification of the data given in the financial statements.
- (i) Comparison of the various inter-connected figures with each other by Different 'Tools o f Financ ial Analysis'.

Each of the above steps has been explained in the following pages.

#### Methodical Classification

In order to have a meaningful analysis it is necessary that figures should be arranged properly. Usually instead the two-column (T form) statements, as ordinarily prepared the statements are prepared in single (vert ical) co lumn form "which should throw up significant figures by adding or subtracting". This also facilitates showing the figure of a number of firms or number of years side by side for comparison purposes.

## **TECHNIQUES OF FINANCIAL ANALYSIS**



CLASS: III B.COM BPS COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III BATCH-2016-2019

A financial analyst can adopt one or more of the following techniques/tools of financial analysis:

#### 1. Comparative Financial Statements

Comparat ive financial statements are those statements which have been designed in a way so as to provide t ime perspective to the considerat ion of various elements of financial posit ion embodied in such statements. In these statements figures for two or more periods are placed side by side to facilitate comparison.

Both the Inco me Statement and Balance Sheet can be prepared in the form o f Comparat ive Financial Statements.

#### () Comparative Income Statement.

The I nco me Statement discloses Net Profit or Net Loss on account of operations. A Comparat ive Income Statement will show the abso lute figures for two or more periods, the abso lute change from one period to another and, if desired, the change in terms of percentages. Since the figures for two or more periods are shown side by side, the reader can quickly ascertain whether sales have increased or decreased, whether cost of sales has increased or decreased, etc. Thus, only a reading o f data included in Comparat ive Income Statements will be helpful in deriving meaningful conclusions.

#### (i) Comparative Balance Sheet.

Comparative Balance Sheet as on two or more different dates can be used for co mparing assets and liabilit ies and finding out any increase or decrease in those items. Thus; while in a single Balance Sheet the emphasis is on present posit ion, it is on change in the co mpar at ive Balance Sheet. Such a Balance Sheet is very useful in studying the trends in an enterprise.

Comparat ive Financial Statements can be prepared for more than two periods or more Prepared by R.Subasree, Department of Commerce, KAHE Page 7/34



CLASS: III B.COM BPS COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III BATCH-2016-2019

than two dates. However, it becomes very cumberso me to study the trend with more than two period"s data. Trend percentages are more useful in such cases.

The American Inst itute of Certified Public Accountants has explained the utilit y of repairing the Comparat ive Financial Statements as fo llows:

The presentation of comparative financial statements is annual and other reports enhances the usefulness of such reports and brings out more clearly the nature and trend of rent changes affect ing the enterprise. Such presentation emphasizes the fact that statement for a series of periods is far more significant than those of a single period and that the accounts of one period are but an installment of what is essent ially a continuous history. In anyo ne year, it is ordinarily desired that the Balance Sheet, the Inco me Statement and the Surplus Statement be given for one or more preceding years as well as for the current year."

The utilit y of preparing the Co mparat ive Financial Statements has also been realized in our country. The Co mpanies Act, 1956, provides that companies should give figures for different items for the previous period, together with

#### 2. Common-size Financial Statements

Common-size Financial Statements are those in which figures reported are converted into percentages to some commo n base. In the Inco me Statement the sale figure is assumed to be 100 and all figures are expressed as a percentage of this total.

**Example (i):** On the basis o f data given in example (i), prepare a Co mmo n-size Inco me statement and Co mmo n Size Balance Sheet of Swadeshi Po lytex Ltd., for the years ended 31<sup>st</sup> March, 1997 and 1998.

#### Swadeshi Polytex Limited

## **COMPARATIVE BALANCE**

#### SHEET

COURSE NAME: COST AND MANAGEMENT ACCOUNTING



CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

UNIT: III

BATCH-2016-2019

(As on 31st december 1997, 1998) (Figures in lakhs of rupees)				
		Γ		
Particulars	1997		1998	
Net Sales	100		100	
Cost of Goods Sold	75		75	
Gross Profit	25		25	
Opening Expenses:				
Administration Expenses	2.50		2	
Selling Expenses	3.75		4	
Total Opening Expenses	6.25		6	
Operating Profit	18.75		19	

**Interpretation:** The above statement shows that though in abso lute terms, the cost of goods sold has gone up, the percentage of its cost to sales remains constant at 75%. This is the reason why the Gross Profit continues at 25% of the sales. Similarly, in abso lute terms the amount 01 administration expenses remains the same but as a percentage to sales it has come down by 5%. Selling expenses have increased by 0.25%. This all leads to net increase in net profit of 0.25% (*i.e.* from 18.75% to 19%).

Swadeshi Polytex Limited		
COMPARATIVE BALANCE SHEE		
As on 31st december 1997, 1998	(Figures in	lakhs of rupees)
Particulars	1997	1998
	%	%



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Assets		100	100
Curren	t Assets:		
	Cash	7.70	9.21
	Debtors	15.38	19.74
	Stock	15.38	19.74
Total C	Current Assets	<u>38.46</u>	48.69
Fixed A	Assets:		
	Building	23.07	17.76
	Plant	23.07	17.76
	Furniture	7.70	9.21
	Land	7.70	6.68
	Total Fixed Assets	61.54	51.41
 Total A	Assets	100	100
Current I	Liabilities		
	Bills Payable	3.84	4.93
	Sundry Creditors	11.54	13.16
	Taxes Payable	7.69	9.96
	Total Current Liabilit ies	23.07	27.95
	<b>Long Term Liabilities</b> 6% Debentures	<u> </u>	<u> </u>
Capital	l & Reserves:		

23.10

30.76

15.38

100

69.24

Prepared by R.Subasree, Department of Commerce, KAHE

Reserves

6% Preference Share Capital

Equit y Share Capital

Total Shareho lders Funds

Total Liabilit ies and Capital

19.72

26.32

16.15

62.19

100



CLASS: III B.COM BPS COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III BATCH-2016-2019

**Interpretation:** The percentage of current assets to total assets was 38.46 in 1997. It has gone up to 48.69 in 1998. Similarly the percentage of current liabilit ies to total liabilit ies (including capital) has also gone up fro m 23.07 in 1997 to 27.95 in 1998. Thus, the proportion of current assets has increased by a higher percentage (about 10) as compared to increase in the proportion o f current liabilit ies (about 5). This has improved the working capital posit ion o f the Company. There has been a slight deterioration in the debt-equit y rat io though it continues toil very sound. The proportion o f shareholder's funds in the total liabilit ies has co me down from 69.24% to 62.19% while that of the debenture-ho lders has gone up from 7.69% to 9.86%.

Comparative Utility of Common-size Financial Statements: The comparat ive common size financial statements show the percentage of each item to the total in each period but not variations in respect ive items from period to period. In other words commo n-size financial statements when read horizontally do not give informat ion about the trend of individual items but the trend of their relat ionship to total. Observat ion of these trends is not very useful because there are no definite norms for the proportion of each item to total. For example, if it is established that inventory should be 30% of total assets, the computation of various ratios to total assets would be very useful. But since there are no such established standard proportions, calculation of percentages of different items of assets or liabilit ies to total assets or total liabilities is not of much use. On account of this reason co mmon size financial statements are not much useful for financial analysis. However, commo n-size financial statements are useful for studying the comparat ive financial posit ion of two or more businesses. However, to make such co mparison really meaningful, it is necessary that the financial Instatements of all such companies should be prepared on the same pattern, *e.g.*, all the companies should be more or less of the same age, they

should be following the same account ing pract ices, the method of depreciation on fixed assets should be the same.



CLASS: III B.COM BPS COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III BATCH-2016-2019

#### **3.** Trend Percentages

Trend percentages are immensely helpful in making a comparat ive study of the financial statements for several years. The method of calculat ing trend percentages invo lves the calculat ion of percentage relationship that each item bears to the same item in the base year. Any year may be taken as the base year. It is usually the earliest year. Any intervening year may also be taken as the base year. Each item of base year taken as 100 and on that basis the percentages for each of the items of each of the *fears* is calculated. These percentages can also be taken as Index Numbers showing relat ive changes in the financial data result ing with the passage of time.

The method of trend percentages is a useful analytical device for the Management since by substituting percentages for large amounts; the brevit y and readabilit y are achieved. However, trend percentages are not calculated for all of the items in the financial statements. They are usually calculated only for major items since the purpose is to highlight important changes.

While calculat ing trend percentages, care should be taken regarding the following matters:

- The accounting principles and practices followed should be constant throughout the period for which analysis is made. In the absence of such consistency, the comparability will be adversely affected.
- 2. The base year should be carefully selected. It should be a normal year and be representative of the items shown in the statement.
- 3. Trend percentages should be calculated only for items having logical relationship with one another.
- 4. Trend percentages should be studied after considering the absolute figures on which they are based; otherwise, they may give misleading results. For example, one expense .may



 CLASS: III B.COM BPS
 COURSE CODE: 16BPU602A

 COURSE NAME: COST AND MANAGEMENT ACCOUNTING

 UNIT: III

 BATCH-2016-2019

increase from Rs. 100 to Rs. 200 while the other expense may increase from Rs. 10,000 to Rs. 15,000. In the first case trend percentage will show 100% increase while in the second case it will show 50% increase. This is misleading because in the first case the change though 100% is not at all significant in realterms as compared to the other. Similarly, unnecessary doubts may be created when the trend percentages show 100% increase in debt while only 50% increase in equity. This doubt can be removed if absolute figures are seen, *e.g.*, the amount ofdebt may increase from Rs. 20,000 to Rs. 40,000 while that ofequity from Rs. 1,00,000 to Rs. 1,50,000.

5. The figures for the current year should also be adjusted in the light of price level changes as compared to the base year, before calculating the trend percentages

In case this is not done, the trend percentages may make the who le comparison meaningless. For example, if prices in the year 1998 have increased by 100% as compared to 1997, the increase in sales in 1998 by 60% as compared to 1997 will give misleading results. Figures of 1998 must be adjusted on account of rise in prices before calculat ing the trend percentages.

**Example (iii):** From the following data relat ing to the assets side of the Balance Sheet of Kamdhenu Ltd., for the period 31st Dec., 1995 to 31st December, 1998, you are required to calculate the trend percentage taking 1995 as the base year. (Rupees in thousands)

Assets	1995	1996	1997	1998
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COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III BA

BATCH-2016-2019

Cash	100	120	80	140
Debtors	200	250	325	400
Stock- in-trade	300	400	350	500
Other Current Assets	50	75	125	150
Land	400	500	500	500
Building	800	1,000	1,200	1,500
Plant	<u>1,000</u>	<u>1,000</u>	<u>1,200</u>	<u>1,500</u>
	<u>2,850</u>	<u>3,345</u>	<u>3,780</u>	4,690

Solution

#### **COMPARATIVE BALANCE SHEET**

## As on december 31, 1995-96

Assets		Decem	ıber 31		Т	rend Pe	rcentag	ge
	()	Rs. in th	ousand	.s)	Base year 1995			
	1995	1996	1997	1998	1995	1996	1997	1998
Current Assets:								
Cash	100	120	80	140	100	120	80	140
Debtors	200	250	325	400	100	125	163	200
Stock- in-trade	300	400	350	500	100	133	117	167
Other Current Assets	50	75	125	150	100	150	250	300
Total Current Assets	650	845	880	1,190	100	129	135	183



CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III B.

BATCH-2016-2019

Fixed Assets								
Land	400	500	500	500	100	125	125	125
Building	800	1,000	1,200	1,500	100	125	150	175
Plant	1,000	1,000	1,200	1,500	100	100	120	150
Total Fixed Assets	2,200	2,500	2,900	3,500	100	114	132	159

## **1. Funds Flow Analysis**

Funds flow analysis has become an important tool in the analytical kit of financial analysts, credit granting institutions and financial managers. This is because the Balance Sheet of a business reveals its financial status at a particular point of time. It does not sharply focus those major financial transact ions which have been behind the Balance Sheet changes. For example, if a loan of Rs.2, 00,000 was raised and pail during the accounting year, the balance sheet will not depict this transaction However, a financial analyst must know the purpose for Which the loan was utilized and the source from which it was obtained. This will help him in making a better estimate about the company's financial posit ion and policies.

## 2. Cost-Volume-Profit Analysis

Cost-Volume-Profit Analysis is an important tool of profit planning. It studies the relat ionship between cost, volume of production, sales and profit. Of course, it is not strict ly a technique used for analysis of financial statements. However, it is an important tool for the management for decision- making since the data is provided by both cost and financial records. It tells the volume of sales at which firm will break-even, the effect on profit on 'account of variat ion in output, selling price and cost, and finally, the quant it y to be produced and so ld to reach the, target profit level.



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#### 4. Ratio Analysis

This is the most important tool available to financial analysts for their work. An accounting rat io shows the relat ionship in mathemat ical terms between two interrelated accounting figures. The figures have to be interrelated (*e.g.*, Gross Profit and Sales, Current Assets and Current Liabilit ies), because no useful purpose will be served if rat ios are calculated between two figures which are not at all related to each other, *e.g.*, sales and discount on issue o f debentures.

## LIMITATIONS OF FINANCIAL ANALYSIS

Financial analysis is a powerful mechanism which helps in ascertaining the strengths and nesses in the operations and financial posit ion o f an enterprise. However, this analysis is subject to certain limitat ions. Most of these limitations are because o f the limitat ions o f the financial statements themselves. These limitations are as fo llows:

## 1. Financial Analysis is only a Means

Financial analysis is a means to an end and not the end itself. The analysis should be used as a starting po int and the conclusion should be drawn not in iso lat ion, but keeping view the overall picture and the prevailing economic and political situation.

## 2. Ignores Price Level Changes

Financial statements are normally prepared on the concept of historical costs. They do not reflect values in terms of current costs. Thus, the financial analysis based on such financial statements or accounting figures would not portray the effects of price level changes over the period.

## 3. Financial Statements are Essentially Interim Reports

The profit shown by Profit and Loss Account and the financial posit ion as depicted by the



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UNIT: III

BATCH-2016-2019

Balance Sheet is not exact. The exact posit ion can be known

only when the business is clo sed down. Again, the existence of contingent liabilit ies and deferred revenue expenditure make them more imprecise.

#### 4. Accounting Concepts and Conventions

Financial statements are prepared on the basis of certain account ing concept and convent ions. On account of this reason the financial posit ion as disclosed by

statements may not be realist ic. For' example, fixed assets in the balance sheet, shown on the basis of going concern concept. This means that value placed on& assets may not be the same which may be realized on their sale. On account convent ion of conservat ism the inco me statement may not disclose true inco me of the business since probable losses are considered while probable incomes are ignored.

#### 5. **Influence of Personal Judgment**

Many items are left to the personal judgment of the accountant. For example, the method of depreciat ion, mode of amortizat ion of fixed assets, treatment of deferred revenue expenditure - all depend on the personal judgment of the accountant. The soundness o f such judgment will necessarily depend upon his competence and integrit y. However convent ion o f consistency acts as a controlling factor on making indiscreet personal judgments.

#### **Disclose only Monetary Facts** 6.

Financial statements do not depict those facts which cannot be expressed in terms of mo ney. For example, development of a team o f lo yal and efficient workers, enlightened management, the reputation and prest ige o f management with the public are matters which are of considerable importance for the business, but they are nowhere depicted by financial statements.

## **RATIO ANALYSIS**



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UNIT: III

BATCH-2016-2019

Ratio Analysis is a very important tool of financial analysis. It is the process of establishing a significant relat ionship between the items o f financial statements to provide a meaningful understanding of the performance and financial posit ion of a firm.

In view of the requirements of various users (e.g., Short-term Creditors, Longterm Creditors, Management, Investors) of the rat ios, one may classify the ratios into the fo llowing four groups:

Liquidit y Rat ios, Solvency Rat ios, Activit y Ratios and Profitabilit y Rat ios

## **Liquidity Ratios**

These ratios measure the concern's abilit y to meet short-term obligations as and when they become due. These rat ios show the short-term financial so lvency of the concern. Usually the following two ratios are calculated for this purpose:

2. Quick Rat io 1.Current Ratio and

## 1. Current Ratio

(a) Meaning: This ratio establishes a relat ionship between current assets and current liabilit ies.

(b) Objective: The object ive of computing this ratio is to measure the abilit y of the firm to meet its short-term obligations and to reflect the short-term financial strength / so lvency o f a firm. In other words, the objective is to measure the safet y margin available for shorttermcreditors.

(c) **Components:** There are two components of this ratio which are a under:

**Current Assets** which mean the assets which are held for their conversion into Û cash within a year and include the following:



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COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III BA

BATCH-2016-2019

Cash Balance	Bank Balances
Marketable Securit ies	Debtors (less Provisio n)
Bills Receivable (less Provisio ns)	Stock of all t ypes, viz., Raw- Materials
Prepaid Expenses	Work-in-progress, Finished Goods
Inco mes accrued but not due	Short-term Loans and Advances
Advance Payment of tax	(Debit Balances)
Tax reduced at source (Debit Balance)	Inco mes due but not received

(i) **Current Liabilities** which mean the liabilities which are expected to be matured within a year and include the following:

Creditors for Goods	Creditors for Expenses
Bills Payable	Bank Overdraft
Short-term Loans and Advances	Income received-in-advance Provisio
n for Tax	Unclaimed dividend

**d)** Computation: This ratio is computed by dividing the current assets by the current liabilit ies. This rat io is usually expressed as a pure ratio e.g. 2 : I. In the form of a formula, this ratio may be expressed as under:

Current Assets Current

Ratio =

Current Liabilit ies

(e) Interpretation: It indicates rupees of current assets available for each rupee of current liabilit y, Higher the ratio, greater the margin of safety for sho rt-term creditors and vice-versa. However, too high / too low ratio calls for further

investigat ion since the too high rat io may indicate the presence o f idle funds with the firm


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UNIT: III

BATCH-2016-2019

or the absence of investment opportunit ies with the firm and too low ratio may indicate the over trading/under capitalizat ion if the capita l turnover ratio is high.

Tradit ionally, a current ratio of 2: 1 is considered to be a satisfactory ratio. On the basis of this tradit ional rule, if the current ratio is 2 or more, it means the firm is adequately liquid and has the abilit y to meet its current obligat ions but if the current ratio is less than 2, it means the firm has difficult y in meeting its current obligat ions. The logic behind this rule is that even if the value of current assets becomes half, the firm can still meet its short-term obligations.

However, the traditional standard of 2: I should not be used blindly since there may be firms having current ratio of less than 2, which are working efficiently and meeting their short-term obligations as and when they become due while the other firms having current ratio of more than 2, may not be able to meet their current obligations in time. This is so because the current ratio measures the quantity of current assets and not their quality. Current assets may consist of doubtful and slow paying debtors and slow moving and obsolete stock of goods. That is why, it can be said that current ratio is no doubt a quick measurement of a firm's liquidity but it is crude as well.

f) Precaution: While computing and using the current ratio, it must be ensured (a) that the qualit y of both receivables (debtors and bills receivable) and inventory has been carefully assessed and (b) that all current assets and current liabilit ies have been properly valued.

Liabilit ies	Rs.	Assets	Rs.
Equit y Share Capital	1,00,000	Land & Building	6,00,000
18% Pref. Share capital	1,00,000	Plant & Machinery	5,00,000
Reserves	60,000		. 1.00,000

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Example Lengthere Lower CADEMY OF HIGHER EDUCATION (Deemed to be University) (Established Under Section 3 of UGC Act, 1356)

BATCH-2016-2019

15% Debentures8,00,0002 00 000Trade Creditors40,000Less: Depreciat ion10,00,000Bills Payable30,0001,00,0001,00,000Outstanding Expenses20,000Trade Invest ments (long-term)95,000Bank overdraft10,000Stock	re & Fixtures 12,00	Fixtures	Furniture	2,40,000	č Loss A/c	Profit & I
Trade Creditors40,000Less: Depreciat ion10,00,000Bills Payable30,0001,00,000Outstanding Expenses20,000Trade Invest ments (long-term)95,000Bank overdraft10,000Stock10,000	2 00 0			8,00,000	ebentures	15% Deb
Bills Payable30,0001,00,000Outstanding Expenses20,000Trade Invest ments (long-term)95,000Bank overdraft10,000Stock10,000	epreciat ion 10,00	iat ion	Less: Dep	40,000	Creditors	Trade Cr
Outstanding Expenses20,000Trade Invest ments (long-term)95,000Bank overdraft10,000Stock	1,00,0			30,000	yable	Bills Pay
Bank overdraft 10,000 Stock	nvest ments (long-term) 95,00	ments (lon	Trade Inve	20,000	nding Expenses	Outstand
			Stock	10,000	verdraft	Bank ove
Provisio n for Tax 2,40,000 Debtors 3,40,000 3,10,000	3,40,000 3,10,0	3,40,000	Debtors	2,40,000	o n for Tax	Provisio
Less: Provisio n 30,000 10,000	rovisio n 30,000 10,00	on 30	Less: Prov			
Marketable Securit ies 10,000	able Securit ies 10,00	Securit ies	Marketabl			

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Evalue | Evalue Evalue | Evalue CACADEMY OF HIGHER EDUCATION (Deemed to be University) (Established Under Section 3 of UC Act, 1956)

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	UNIT: III			BATCH-2016-2019		
		Cash		10,000		

		Bills receivables	5,000
		Prepaid Expenses	60,000
		Preliminary Expenses	
		Underwrit ing	40,000
1	16,40,000	Commissio n	16,40,000

Net Sales for the year 19XI-19X2 amounted to Rs. 20.00.000. Calculate Current Ratio.

### Solution

Current Assets =Stock + Debtors - Provisio n on Debtors +Marketable Securit ies

+ Cash + B/R + Prepaid Expenses

= Rs. 95,000 + Rs. 3,40,000 - Rs. 30,000 + Rs. 10,000 +

Rs. 5,000 = Rs. 4,40,000



**CLASS: III B.COM BPS** 

COURSE CODE: 16BPU602A

UNIT: III

COURSE NAME: COST AND MANAGEMENT ACCOUNTING BATCH-2016-2019

Current Liabilit ies= Trade Creditors + B/P + O/s Exp + Bank O/D + Provisio n for Tax = Rs. 40,000 + Rs. 30,000 + Rs. 20,000 + Rs. 10,000 + Rs. 2,40,000

= Rs. 3,40,000

	Current Assets		Rs. 4,40,000	
Current Ratio =		=		= 22:17 Current
	Liabilities		Rs.3,40, 000	

### 2. Quick Ratio

(a) Meaning: This ratio establishes a: relat ionship between quick assets and current liabilit ies.

(b) Objective: The object ive of computing this ratio is to measure the ability of the firm to meet its short-term obligat ions as and when due wit hout relying upon the realizat ion of stock.

(c) Components There are two components of this ratio which are as under:

() Quick assets: which mean those current assets which can be converted into cash immediately or at a short notice without a loss of value and include the following:

Cash Balances	Bank Balances
Marketable Securities	Debtors
Bills Receivable	Short-term Loans and Advances

(i) Current liabilities: (as explained earlier in Current Ratio)

(d) Computation This ratio is computed by dividing the quick assets by the current liabilit ies. This rat io is usually expressed as a pure ratio e.g., 1: 1. In the form of a formula, this ratio may be expressed as under:



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COURSE CODE: 16BPU602A

BATCH-2016-2019

QUICK RATIO = QUICK ASSET

CURRENT LIABILITIES

(a) Interpretation: It indicates rupees of quick assets available for each rupee of current liability. Tradit ionally, a quick rat io of 1:1 is considered to be a satisfactory rat io. However, this tradit ional rule should not be used blindly since a firm having a quick rat io of more than 1, may not be meet ing its short-term obligat ions in t ime if its current assets consist of doubtful and slow paying debtors while a firm having a quick ratio of less than 1, may be meet ing its short-term obligations in t ime because of its very efficient inventory management.

(b) Precaution: While computing and using the quick ratio, it must be ensured,

(a) that the qualit y o f the receivables (debtors and bills receivable) has been carefully assessed and (b) that all quick assets and current liabilit ies have been properly valued.

**Example** (v): Current Assets Rs.2,00,000, Inventory Rs.40,000, Working Capital Rs.1, 20 000. Calculate the Quick Ratio.

Solution: Current Liabilit ies = Current Assets - Working Capital

= Rs. 2,00,000 - Rs. 1,20,000 = Rs. 80,000

Quick Assets = Current Assets - Inventory

= Rs. 2,00,000 - Rs. 40,000 = Rs. 1,60,000

Quick Assets RS.1,60,000

= 2:1

Quick Ratio

Current Liabilities Rs. 80000

SOLVENCY RATIOS



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These rat ios show the long- term financial solvency and measure the enterprise's abilit y to pay the interest regularly and to repay the principal (i.e. capita l amount) on maturit y or in pre-determined installments at due dates. Usually, the follo wing rat ios are calculated to judge the long- term financial so lvency of the concern.

### **Debt-Equity Ratio**

(a) Meaning: This ratio establishes a relationship between long- term debts and share-ho lders' funds.

(b) **Objective:** The object ive of computing this ratio is to measure the relative proportion of debt and equit y in financing the assets of a firm.

(c) Components: There are two components of this ratio, which are as under:

- Long-term Debts, which mean long-term loans (whether secured or unsecured (e.g., Debentures, bonds, loans from financial inst itutions).
- Shareho lders' Funds which mean equit y share capital plus preference share capital plus reserves and surplus minus fictit ious assets (e.g., preliminary expenses).

(d) **Computation:** This rat io is computed by dividing the long- term debts by the shareho lders' funds. This ratio is usually expressed as a pure ratio e.g., 2: 1. In the form of a formula, this ratio may be expressed as under:

Long - term Debts Debt-

Equity Ratio =

Shareho lders 'Funds

(e) Interpretation: It indicates the margin of safety to long-term creditors. A

low debt equit ies rat io implies the use of more equit y than debt which means a larger safety margin for creditors since owner's equit y is t reated as a margin o f safet y by

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Page 25/34



COURSE CODE: 16BPU602A **CLASS: III B.COM BPS** COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: III

BATCH-2016-2019

creditors and vice versa.

**Example (vi):** Capital Employed Rs. 24,00,000, Long- term Debt Rs. 16,00,000 Calculate the Debt- Equit y Rat io. **Solution:** Shareho lders' 'Funds = Capital Emplo yed - Long-ter = Rs. 24,00,000 - Rs. 16,00,000 = Rs. 8,00,000 Rs. 16,00,000 Long-term Debts Debt-Equity Ratio = = 2:1Shareho =lders' Funds Rs 8.00.00 Example (vii): Capital Emplo yed Rs. 8,00,000, Shareho Iders' Funds Rs. 2,00,000 Calculate the Debt Equity Rat io. Solution: Long-term Debt = Capital Emplo yed - Shareholders' Funds = Rs. 8,00,000 - Rs. 2,00,000 = Rs. 6,00,000 Long-term Debts - Rs. 6,00,000 = 3:1 Shareho Debt equit y Ratio = \_ lders Funds Rs. 2,00,000

### **Debt Total Funds Ratio**

This rat io is a variat ion of the debt-equit y rat io and gives the similar indicat ions as the debt-equit y ratio. In this rat io, the outside long- term liabilit ies are related to the total capitalizat ion of the firm and not merely to the shareho lders' funds. This rat io is computed by dividing the long- term debt by the capital employed. In the form of a formula, this ratio may be expressed as under:

Debt-Total Funds Ratio =

Capital Employed long-term Debt



**CLASS: III B.COM BPS** COURSE CODE: 16BPU602A COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: III

BATCH-2016-2019

Where, the Capital Employed comprises the long-term debt and the shareho lders' funds.

# Interest Coverage Ratio (or Time-interest Earned Ratio or **Debt-Service Ratio**)

(a) Meaning: This rat io establishes a relat ionship between net profits before interest and taxes and interest on long-termdebt.

(b) Objective: The objective of computing this ratio is to measure the debt- servicing capacity of a firm so far as fixed interest on long-term debt is concerned.

**(c) Components:** There are two components of this ratio which are as under:

- (i) Net profits before interest and taxes;
- Interest on long-termdebts. (ii)

(d) Computation: This ratio is computed by dividing the net profits before interest and taxes by interest on long- term debt. This ratio is usually expressed as 'x' number of times. In the form of a formula, this rat io may be expressed as under:

Net Profit before interest and taxes

Interest Coverage Ratio =

### Interest on Long- term debt

Interpretation: Interest coverage ratio shows the number of t imes the interest charges **(e)** are covered by the profits out of which they will be paid. It

indicates the limit beyo nd which the abilit y of the fir m to service its debt would be adversely affected. For instance, an interest coverage of five times would imply that even if the firm's net profits before interest and tax were to decline to 20% of the present level, the fir m will st ill be able to pay interest out of profits. Higher the rat io, greater the firm's abilit y to pay interest but very high rat io may imply lesser use of debt and/or very efficient



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COURSE CODE: 16BPU602A

UNIT: III

BATCH-2016-2019

operations.

**Example (viii):** Net Profit before Interest and Tax Rs. 3,20,000, Interest on long term debt Rs. 40,000. Calculate Interest Coverage Ratio.

Solution:

Net Profit before Interest and Taxes

Interest Coverage Ratio =

Interest on Long- term Debt

Rs.3,20,000

= 8 Times

Rs.40,000 8 Times

## **ACTIVITY RATIOS**

=

These ratios measure the effect iveness wit h which a firm uses its available resources. These ratios are also called 'Turnover Ratios' since they indicate the speed wit h which the resources are being turned (or converted) into sales.

Usually the fo llowing turnover ratios are calculated:

- I. Capital Turnover Ratio II. Fixed Assets Turnover Ratio,
- III. Net Working Capital Turnover Rat io IV. Stock Turnover Ratio
- V. Debtors Turnover Ratio. VI. Creditors Turnover Ratio.

### **Capital Turnover Ratio**

(a) Meaning: This rat io establishes a relat ionship between net sales and capita l employed.

(b) **Objective:** The object ive of computing this ratio is to determine the efficiency with



COURSE NAME: COST AND MANAGEMENT ACCOUNTING

COURSE CODE: 16BPU602A

UNIT: III

BATCH-2016-2019

which the capital employed is utilized.

(c) Components: There are two components of this ratio which are as under:

- () Net Sales which mean gross sales minus sales returns; and
- (i) Capital Employed which means Long- term Debt plus Shareho lders' Funds.

(d) **Computation:** This ratio is computed by dividing the net sales by the capita 1 emplo yed. This rat io is usually expressed as 'x' number of t imes. In the form of a formula this ratio may be expressed as under:

Net Sales

Capital Turnover Rat io =

Capital Emplo yed

(e) **Interpretation:** It indicates the firm's abilit y to generate sales per rupee o f capital employed. In general, the higher the ratio the more efficient the management and utilizat ion o f capital employed. A too high rat io may indicate the situation o f an over-trading (or under. capitalization) if current ratio is lower than that required reasonably and vice versa.

### **Fixed Assets TurnoverRatio**

(a) Meaning: This rat io establishes a relationship between net sales and fixed assets.

(b) Objective: The object ive of computing this ratio is to determine the

efficiency wit h which the fixed assets are utilized.

(c) Components: There are two components of this ratio which are as under:

- () Net Sales which means gross sales minus sales returns;
- Net Fixed (operating) Assets which mean gross fixed assets minus depreciat ion thereon.



**CLASS: III B.COM BPS** 

COURSE CODE: 16BPU602A

UNIT: III

COURSE NAME: COST AND MANAGEMENT ACCOUNTING BATCH-2016-2019

(d) Computation This rat io is computed by dividing the net sales by the net fixed assets. This rat io is usually expressed as 'x' number of t imes. In the form of a formula, this ratio may be expressed as under:

Net Sales

Fixed Assets Turnover Ratio =

Net Fixed Assets

(e) Interpretation: It indicates the firm's ability to generate sales per rupee of investment in fixed assets. In general, higher the ratio, the more efficient the management and utilizat ion of fixed assets, and vice versa. It may be noted that there is no direct relat ionship between sales and fixed assets since the sales are influenced by other factors as well (e.g., qualit y o f product, delivery terms, credit terms, after sales service, advertise ment and publicit ies.)

Example (ix): Fixed Assets (at cost) Rs. 7,00,000, Accumulated Depreciat ion till date Rs. 1,00,000, Credit Sales Rs. 17,00,000, Cash Sales Rs., 1,50,000, Sales Returns Rs. 50,000. Calculate Fixed Assets Turnover Ratio.

**Solution:** Net Sales = Cash Sales + Credit Sales - Sales Returns

= Rs. 1,50,000 + Rs. 17,00,000 - Rs. 50,000 = Rs. 18,00,000

Net Fixed Assets = Fixed Assets (at cost) - Depreciat ion

= Rs. 7,00,000 - Rs. 1,00,000 = Rs. 6,00,000

Net Sales Rs. 18,00,000.

Fixed Assets Turnover Ratio = Fixed Assets Rs. 600000

Example (x): Capital Employed Rs. 2,00,000, Working Capital Rs. 40,000, Cost of goods sold Rs. 6,40,000, Gross Profit Rs. 1,60,000. Calculate Fixed Assets Turnover Ratio.

Solution: Net Sales = Cost of Goods Sold + Gross Profit

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= 3 Times Net



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#### BATCH-2016-2019

= 5 Times

= Rs. 6,40,000 + Rs. 1,60,000 = Rs. 8,00,000

Net fixed Assets = Capital Employed - Working Capital = Rs. 2,00,000 - Rs. 40,000 = Rs. 1,60,000

> Net Sales Rs. 8,00,000

> > =

Fixed Assets Turnover Ratio =

Net fixed Asset Rs. 1,60,000

Working Capital TurnoverRatio

(a) Meaning: This rat io establishes a relat ionship between net sales and working capital.

(b) Objective: The object ive of computing this ratio is to determine the efficiency with which the working capital is utilized.

(c) Components: There are two components of this ratio which are as under:

- (i) Net Sales which mean gross sales minus sales returns; and
- (ii) Working Capital which means current assets minus current liabilities.

(d) Computation: This rat io is computed by dividing the net sales by the working i capital. This rat io is usually expressed as 'x' number of t imes. In the form of a formula, this ratio may be expressed as under:

Net Sales

Working Capital Turnover Rat io =

#### Working Capital

(e) Interpretation: It indicates the firm's abilit y to generate sales per rupee o f working capital. In general, higher the ratio, the more efficient the management and utilization o f,



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working capital and vice versa.

**Example (xi):** Current Assets Rs. 6,00,000, Current Liabilit ies Rs. 1,20,000, Credit Sales Rs. 12,00,000, Cash Sales Rs. 2,60,000, Sales Returns Rs. 20,000. Calculate Working Capital Turnover Ratio.

### Solution:

Net Sales = Cash Sales + Credit Sales - Sales Returns

= Rs. 2,60,000 + Rs. 12,00,000 - Rs. 20,000 = Rs. 14,40,000

Working Capital = Current Assets - Current Liabilities

= Rs. 6,00,000 - Rs. 1,20,000 = Rs, 4,80,000

	Net Sales	Rs. 14,40,000	
Working Capital Turnover Ratio =		=	=3 Times Net Sales
		Rs. 14,40,000	
Working Capital Turnover Ratio =		=	=3 Times Working
	Capital Rs.	4,80,000	
Stock Turneyon Detio			

### **Stock Turnover Ratio**

(a) Meaning: This rat io establishes a relat ionship between costs of goods sold and aver age inventory.

(b) **Objective:** The object ive of computing this ratio is to determine the efficiency with which the inventory is utilized.

(c) Components: There are two components of this ratio which are as under:

(i) Cost of Goods Sold, this is calculated as under.

Cost of Goods Sold = Opening Inventory + Net Purchases + Direct Expenses -Closing Inventory = Net Sales - Gross Profit



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(ii) Average Inventory which is calculated as under:

Average Inventory = (Opening Inventory plus Closing Inventory)/2

(d) **Computation:** This ratio is computed by dividing the cost of goods sold by the average inventory. This ratio is usually expressed as 'x' number of times. In the form of a formula, this ratio may be expressed as under:-

Cost of Goods Sold

Stock Turnover Ratio =

Average Inventory

(e) Interpretation: It indicates the speed with which the inventory is converted into sales. In general, a high ratio indicates efficient performance since an improvement in the ratio shows that either the same volume of sales has been maintained with a lower investment in stocks, or the volume of sales has increased without any increase in the amount of stocks. However, too high rat io and too low ratio calls for further invest igat ion. A too high rat io may be the result of a very low inventory levels which may result in frequent stock-outs and thus the firm may incur high stock-out costs. On the other hand, a too low ratio may be the result of excessive inventory levels, slow- mo ving or obsolete inventory and thus, the firm may incur high carrying costs. Thus, a firm should have neit her a very high nor a very low stock turnover ratio, it should have

Satisfactory level. To judge whether the rat io is satisfactory or not, it should be compared wit h its own past ratios or with the ratio of similar firms in the same industry or with industry average.

(f) Stock Velocity- This velocit y indicates the period for which sales can be generated with the help of an average stock maintained and is usually expressed in days. This velocit y may be calculated as follows:

Average stock



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UNIT: III

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Stock Velocity=\_\_\_\_\_

Average Daily cost of Goods Sold

12 months /52 weeks /365 days

Or\_\_\_\_\_ Stock

Turnover Ratio



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BATCH-2016-2019

#### Unit IV

**Fund flow and Cash Flow Statement:** Schedule of changes in working capital- Preparation of fund flow and cash flow statement- Importance of fund flow and cash flow analysis – Differenciate between fund flow and cash flow-Ratio analysis- Utility and limitation of accounting.

#### **Definition of fund flow**

Flow of fund is just like circulation of blood. Like circulation of blood, fund flow should come in business and go from business.

Flow of fund here means conversation of one asset to be use to purchase of another asset or use to deduction in liabilities

### Definition of fund flow state ment

Fund flow statement is a statement which shows source and use of fund in particular time. This period may be two years or more years' .Basis of making fund flow statement is two years or more than two years balance sheet.

Funds Flow Statement is a statement prepared to analyse the reasons for changes in the Financial Position of a Company between two Balance Sheets. It shows the inflow and outflow of funds i.e. Sources and Applications of funds for a particular period.

In other words, a **Funds Flow Statement** is prepared to explain the changes in the Working Capital Position of a Company.

There are 2 types of Inflows of Funds:-

- 1. Long Term Funds raised by Issue of Shares, Debentures or Sale of Fixed Assets
- 2. Funds generated fromOperations

If the Long Term Fund requirements of a company are met just out of the Long Term Sources of Funds, then the whole fund generated from operations will be represented by increase in Working Capital. However, if the Funds generated from Operations are not sufficient to bridge a gap of Long Term Fund Requirements, then



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BATCH-2016-2019

there will be a decline in Working Capital.

#### **Advantages of Fund Flow State ments**

A Funds flow statement is prepared to show changes in the assets, liabilities and equity between two balance sheet dates, it is also called statement of sources and uses of funds. The advantages of such a financial statement are many fold.

### Some of these are:

- 1. Funds flow statement reveals the net result of Business operations done by the company during the year.
- In addition to the balance sheet, it serves as an additional reference for many interested parties like analysts, creditors, suppliers, government to look into financial position of the company.
- 3. The Fund Flow Statement shows how the funds were raised from various sources and also how those funds were deployed by a company, therefore it is a great tool for management when it wants to know about where and from what sources funds were raised and also how those funds got utilized into the business.
- It reveals the causes for the changes in liabilities and assets between the two balance sheet dates therefore providing a detailed analysis of the balance sheet of the company.
- 5. Funds flow statement helps the management in deciding its future course of plans and also it acts as a control tool for the management.
- 6. Funds flow statement should not be looked alone rather it should be used along with balance sheet in order judge the financial position of the company in a better way.

### **Disadvantages of Fund Flow Statements**

Funds flow statement has many advantages; however it has some disadvantages or limitations also.



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#### Let's look at some of the limitations of funds flow statement.

- 1. Funds Flow statement has to be used along with balance sheet and profit and loss account for inference of financial strengths and weakness of a company it cannot be used alone.
- 2. Fund Flow Statement does not reveal the cash position of the company, and that is why company has to prepare cash flow statement in addition to funds flow statement.
- 3. Funds flow statement only rearranges the data which is there in the books of account and therefore it lacks originality. In simple words it presents the data in the financial statements in systematic way and therefore many companies tend to avoid preparing funds flow statements.
- 4. Funds flow statement is basically historic in nature, that is it indicates what happened in the past and it does not communicate anything about the future, only estimates can be made based on the past data and therefore it cannot be used the management for taking decision related to future.

### **Benefits of Funds Flow Statement**

Funds Flow Statement is useful for Long Term Analysis. It is a very useful tool in the hands of the management for judging the financial and operating performance of the Company. The Balance Sheet and the Profit and Loss A/c (Income Statement)fail to provide the information which is provided by the Funds Flow Statement i.e. Changes in Financial Position of an enterprise. Such an analysis is of great help to the management, shareholders, creditors etc

1. The Funds Flow Statement helps in answering the following questions:-

- Where have the profits gone?
- Why is there an imbalance existing between liquidity position and profitability position of an enterprise?



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BATCH-2016-2019

Why is the concern financially solid in spite of losses?

2. The Funds Flow Statement analysis helps the management to test whether the working capital has been effectively used or not and the working capital level is adequate or inadequate for the requirements of the business. The Working Capital Position helps the management in taking policy decisions regarding payment of dividend etc.

3. The Funds Flow Statement Analysis helps the investors to decide whether the company has managed the funds properly. It also indicates the Credit Worthiness of a company which helps the lenders to decide whether to lend money to the company or not.

It helps the management to take policy decisions and to decide about the financing policies and Capital Expenditure for the future.

#### Limitations of Fund Flow State ment

The fund flow statement suffers from the following limitations :

1. The fund flow statement is prepared with the help of balance sheet and profit and loss account of the current period and these statements are based on historical cost. So a realistic comparison of profitability and the funds position is not possible as the current cost is not considered for the purpose of preparation of fund flow statement.

2. The cash position of the firm is not revealed by fund flow statement. To know the cash position a cash flow statement has to be prepared.

3. The various activities are not classified as operating activities, investing activities and financing activities while preparing fund flow statement.

#### Uses of Fund Flow State ment

The users of fund flow statement, such as investors, creditors, bankers, government, etc., can understand the managerial decisions regarding dividend distribution, utilization
 The quantum of working capital is revealed by the schedule of working capital changes, which is a part of fund flow statement.

3. The fund flow statement is the best and first source for judging the repaying capacity



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BATCH-2016-2019

of an enterprise.

4. The management will be able to detect surplus/shortage of fund balance.

### Difference between Funds Flow State ment and Cash Flow Statement

	Basis of Funds Flow State ment		Cash Flow Stateme nt		
	Difference				
1.	Basis of	Funds flow statement is based	Cash flow statement is based on narrow		
	Analysis	on broader concept i.e. working	concept i.e. cash, which is only one of		
		capital.	the elements of working capital.		
2.	Source	Funds flow statement tells about	Cash flow statement stars with the		
		the various sources from where	opening balance of cash and reaches to		
		the funds generated with various	the closing balance of cash by		
		uses to which they are put.	proceeding through sources and uses.		
3.	Usage	Funds flow statement is more	Cash flow statement is useful in		
		useful in assessing the long-	understanding the short-term		
		range financial strategy.	phenomena affecting the liquidity of		
		the business.			
4.	Schedule of	In funds flow statement changes	In cash flow statement changes in		
	Changes in	in current assets and current current assets and current liabilities are			
	Working	liabilities are shown through the shown in the cash flow statement itself.			
	Capital	schedule of changes in working			
		capital.			
5.	End Result	Funds flow statement shows the	Cash flow statement shows the causes		
		causes of changes in net	the changes in cash.		
		working capital.			



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6	Princinal of	Funds flow statement is in In cash flow statement data obtained on
••	Accounting	alignment with the accrual basis accrual basis are converted into cash
		of accounting. basis.

### Steps for making Fund flow state ment

#### Procedure for preparing fund flow state ment

#### For making fund flow statement , we took three steps

1st step: Making schedule or statement of change working capital

2nd step: Making adjusted profit and loss account or statement showing fund from operation or lost in operation

3rd Step: Fund flow statement

### First Step

### Making of statement of Changes of Working Capital

For making of fund flow statement. It is very necessary to make statement changes of working capital. Because net increase in working capital is use of fund and net decrease in working capital is source of fund. So, it is duty of accountant to make statement of changes of working capital. Making of statement of changes working is very easy and simple.

We take two balance sheets, one is current year balance sheet and other is year balance sheet. Then we separate current assets and current

If current assets are more than previous year current assets, it means increase working capital.

If current assets are less than previous year current assets, it means decrease working capital. Because, relationship between current assets and working capital positive and if any changes in current assets, working capital will change in direction

If current liabilities are more than previous year current liabilities, it means decrease Prepared by R.Subasree, Department of Commerce, KAHE Page 6/34



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COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING

UNIT: IV

BATCH-2016-2019

in working capital.

If current liabilities are less than previous year current liabilities, it means increase in working capital. Relationship between working capital and current liabilities are inverse

Particular	previous	Current	Effect on working capital	
	year	year		
			Increase	Decrease
Current Assets				
Þ Cash in hand				
Þ Bills receivable				
▶ Sundry debtors				
<b>P</b> Temporary investments				
Þ Stocks / inventories				
▶ Prepaid expenses				
Þ Accrued incomes				
Total current assets	XXXX	xxxx		
Current liabilities				
Þ Bills payables				
Þ Sundry creditors				
Þ Bank overdraft				
▶ Short term advances				
Þ Dividends payables				
▶ Provision for taxation				
Total current Liabilities	XXXX	XXXX		
Working capital	XXXX	xxxx		
CA- CL				

### Statement or schedule of changes in working capital



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Net increase or decrease	XXXX	XXXX	XXXX	XXXX	
in working capital					

### 2nd Step

### Statement showing the fund from ope ration

Because is the source of fund and will show in fund flo w statement's source side.

So before making fund flow statement, we must make statement showing the fund from

operation.

Operation means business activity and fund from operation means profit from business

activity. So, you will easy understand that profit from business activity between accounting period must be the source of fund.

## Statement of fund from

Closing balance of profit and loss account or retained earning given in the Balance

sheet

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Pebited to profit and loss account	
1. Depreciation	
2. Amortization of f goodwill	ictitious and intangible
patent	
trade	
preliminary	
discount on issue of	
3. Appropriation of retained ea	rning such
Transfer to general	
Dividend equalization fu	ind
Transfer to sinking fund	
Contingency reserve etc.	
4. Loss on sale of any non currer	nt or fixed assets such as Loss
on sale of land and build	ling
ss on sale of machinery Loss on sale of	furniture
Loss on sale of long term	n investments
5. Dividends including	
Interim dividend Propose	ed
dividend	
(If it is an appropriation of profit an	nd not taken as current liability)
6. Provision for taxation (if it is not	taken as currentliability)
7. Any other non fund / r	non operating items which have been debited to P/L
Total ( A)	> $\downarrow$ XXXXX $\downarrow$



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BATCH-2016-2019

#### and loss account

1. Profit or gain from the sale of non current / fixed assets such

Profit on sale of land and building

Profit on sale of plant and

Profit on sale of long term investment

2. Appreciation in the value of fixed assets such as increase in the value of land if it

been credited to profit and loss

3. Dividends received

4. Excess provision retransferred to profit and loss account or written back

5. Any other non operating item which has been credited to profit and loss

6. opening balance of profit and loss account or retained earnings as given in the sheet

\_\_\_\_\_

Total ( B) ------> ↓ XXXXX ↓

Funds received from operation or business activities = total (A) – Total (B)

(You can make also above statement in t shape adjusted profit and loss account form).

### 3rd Step

### Fund flow statement

A) Source of funds: Fund from operation ( balance of second step )

- 1. issue of shares capital
- 2. issue of debentures
- 3. raising of long term loans
- 4. receipts from partly paid shares, called up
- 5. amount received from sales of non current or fixed assets
- 6. non trading receipts such as dividend received
- 7. sale of investments ( Long term)
- 8. Decrease in working capital as per schedule of changes in working capital

\_\_\_\_\_



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UNIT: IV

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total-----> | XXXXX |

\_\_\_\_\_

### **B)** Applications or uses of funds

1. Funds lost in operations (Balance negative in second step)

- 2. Redemption of preference share capital
- 3. Redemption of debentures
- 4. Repayment of long term loans
- 5.purchase of long term loans 6.purchase
- of longterm investments
- 7. Non trading payments
- 8. Payment of tax
- 9.payment of dividends

10. increase in working capital (As per positive balance of ist step)

----- total -

-----> \ XXXXX \

# There are 3 basic financial state ments that exist in the area of **Financial Management.**

- 1. Balance Sheet.
- 2. Income Statement.
- 3. Cash Flow Statement.
- 4. Fund Flow Statement



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The first two statements measure one aspect of performance of the business over a period of time. Cash flow statements signify the changes in the cash and cash equivalents

of the business due to the business operations in one time period. Funds flow statements report changes in a business's working capital from its operations in a single time period, but have largely been superseded by cash flow statements.

A **Cash Flow Statement** is a statement showing changes in cash position of the firm from one period to another. It explains the inflows (receipts) and outflows (disbursements) of cash over a period of time. The inflows of cash may occur from sale of goods, sale of assets, receipts from debtors, interest, dividend, rent, issue of new shares and debentures, raising of loans, short-term borrowing, etc. The cash outflows may occur on account of purchase of goods, purchase of assets, payment of loans loss on operations, payment of tax and dividend, etc.

A cash flow statement is different from a cash budget. A cash flow statement shows the cash inflows and outflows which have already taken place during a past time period. On the other hand a cash budget shows cash inflows and outflows which are expected to take place during a future time period. In other words, *a cash budget is a projected cash* **Funds Flow State ment** states the changes in the working capital of the business in relation to the operations in one time period. The main components of Working Capital

#### **Current Assets**

1. Cash

are:

- 2. Receivables
- 3. Inventory

### **Current Liabilities**

1. Payables

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Net working capital is the total change in the business's working capital, calculated as total change in current assets minus total change in current liabilities.

Working Capital = Current Assets-Current Liabilities

### **PROBLEMS:**

SUM 1:

Prepare a funds flow statement

### Balance Sheet of M/s \_\_\_\_\_

Liabilities	As on 31st D	ecember	Assets	As on 31st December		
	2004	2005		2004	2005	
Share Capital	10,000	15,000	Cash	5,000	8,000	
Profit and Loss			Debtors	10,000	15,000	
Appropriation	5,000	8,000	Stock	10,000	12,000	
account	4,000	6,000	Machinery	3,000	5,000	
Long Term Loan	8,000	12,000	Land	4,000	4,000	
Sundry Creditors	5,000	3,000		-		
Bills Payable						
	32,000	44,000		32,000	44,000	

From the information relating to the non-current area from the balance sheet figures on 31<sup>st</sup> Dec 2004 and 31<sup>st</sup> Dec 2005, we would be able to prepare a funds flow statement for the period between 31<sup>st</sup> December 2004 and 31<sup>st</sup> December 2005 i.e. for the year 2005.

### **Current Liabilities**

#### 1. Payables



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Net working capital is the total change in the business's working capital, calculated as

total change in current assets minus total change in current liabilities.

Working Capital = Current Assets-Current Liabilities

**PROBLEMS:** 

SUM 1:

Prepare a funds flow statement

### Balance Sheet of M/s \_\_\_\_\_

Liabilities	As on 31st D	ecember	Assets	As on 31st December	
	2004	2005	1135013	2004	2005
Share Capital	10,000	15,000	Cash	5,000	8,000
Profit and Loss			Debtors	10,000	15,000
Appropriation	5,000	8,000	Stock	10,000	12,000
account	4,000	6,000	Machinery	3,000	5,000
Long Term Loan	8,000	12,000	Land	4,000	4,000
Sundry Creditors	5,000	3,000			
Bills Payable					
	32,000	44,000		32,000	44,000

From the information relating to the non-current area from the balance sheet figures on 31<sup>st</sup> Dec 2004 and 31<sup>st</sup> Dec 2005, we would be able to prepare a funds flow statement for the period between 31<sup>st</sup> December 2004 and 31<sup>st</sup> December 2005 i.e. for the year 2005.

## Balance Sheet of M/s \_\_\_\_\_

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Schedule/State ment of Changes in Working Capital for the period from\_\_\_\_\_to \_\_\_\_

Particulars/Account	Balance as on	31 <sup>st</sup> December	Working Ca	pital Change
	2004 2005		Increase	Decrease
a) CURRENT ASSETS				
1) Cash	5,000	8,000		3,000
2) Sundry Debtors	10,000	15,000		5,000
3) Stock	10,000	12,000		2,000
TOTAL	25,000	35,000		10,000
b) CURRENT LIABILITIES				
1) Sundry Creditors	8,000	12,000	4,000	
2) Bills Payable	5,000	3,000		2,000
TOTAL	13,000	15,000	4,000	2,000
Working Capital [(a) - (b)]	12,000	20,000		
TOTAL			4,000	12,000
Net Change in Working Capital		8,000		

### Funds Flow State ment for the period from\_\_\_\_\_to \_\_\_\_

Particulars	Amount	Amount
a) Sources (Inflow) of Funds		
1) Share Capital	5,000	
2) Funds from Operations	3,000	8,000



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BATCH-2016-2019

[P/L appropriation account]		
<ul><li>b) Applications (Outflow) of Funds</li><li>1) General Reserve</li><li>2) Machinery</li></ul>	2,000 2,000	4,000
Change in Working Capital [a - b]		+ 4,000

Sum 2 Prepare:

### i) A Schedule of Changes in Working Capital

ii) A Funds Flow Statement

### Balance Sheet of M/s

Lighiliting	as on 31 <sup>st</sup> M	larch	as on 31 <sup>st</sup> March		arch
Liaonnies	2006	2007	Assets	2006	2007
Capital	18,50,000	21,00,000	Goodwill (at Cost)	6,00,000	6,00,000
Profit/Loss	14,78,000	17,64,000	Land and	18,50,000	22,00,000
Appropriation	12,00,000	9,00,0000	Buildings	4,74,000	5,24,000
Bank Loan	4,00,000	6,80,000	Plant and	1,94,000	1,94,000
Bills Payable	14,00,000	12,20,000	Machinery	8,26,000	7,24,000
Sundry Creditors	2,00,000	1,80,000	Furniture and	12,00,000	12,80,000
Reserve for			Fittings	8,00,000	7,21,000
Taxation			Stock/Inventories	5,00,000	4,83,000
			Sundry Debtors	84,000	1,18,000



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BATCH-2016-2019

			Bills Receivable			
			Bank			
			Cash			
TOTAL	65,28,000	68,44,000	TOTAL	65,28,000	68,44,000	

### **SOLUTION**

Schedule/Statement of Changes in Working Capital for the period from 31/03/06 to

31/03/07

Particulars/Account	Balance as on 31 <sup>st</sup> March		Working Capital Change	
	2006	2007	Increase	Decrease
a) CURRENT ASSETS				
<ol> <li>Stock/Inventories</li> <li>Sundry Debtors</li> <li>Bills Receivable</li> <li>Bank</li> <li>Cash</li> </ol>	8,26,000 12,00,000 8,00,000 5,00,000 84,000	7,24,000 12,80,000 7,21,000 4,83,000 1,18,000	80,000 34,000	1,02,000 79,000 17,000
<ul> <li>b) CURRENT LIABILITIES</li> <li>1) Bills Payable</li> <li>2) Sundry Creditors</li> <li>3) Provision for Taxation</li> </ul>	4,00,000 14,00,000 2,00,000	6,80,000 12,20,000 1,80,000	1,80,000 20,000	2,80,000
TOTAL	20,00,000	20,80,000	2,00,000	2,80,000



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Working Capital [(a) - (b)]	14,10,000	12,46,000		
TOTAL	3,14,000	4,78,000		
Net Change in Working Capi		1,64,000		

Working Notes

Make up the ledgers for all the non-current accounts.

Dr		Capita	Cr		
Date	Particulars	Amount	Date	Particulars	Amount
31/03/07	To Balance c/d	21,00,000	01/04/06	By Balance b/d	18,50,000
				By Bank a/c (?)	2,50,000
		21,00,000			21,00,000
			01/04/07	By Balance b/d	21,00,000

Assumption :

Capital has been raised during the period for cash.

Dr	Bank Loan a/c				Cr
Date	Particulars	Amount	Date	Particulars	Amount
	To Bank a/c (?)	3,00,000	01/04/06	By Balance b/d	12,00,000
31/03/07	To Balance c/d	9,00,000			
		12,00,000			12,00,000
			01/04/07	By Balance b/d	9,00,000

Prepared	by R.Subasree,	Department of	Commerce,	KAHE

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BATCH-2016-2019

Assumption : Bank loan has been repaid during the period through a cheque.

Dr	Land and Buildings a/c				Cr	
Date	Particulars	Amount	Date	Particulars	Amount	
01/04/06	To Balance b/d	18,50,000	31/03/07	By Balance c/d	22,00,000	
	To Bank a/c (?)	3,50,000				
		22,00,000	-		22,00,000	
01/04/07	To Balance b/d	22,00,000				

Assumption :

Additional assets have been purchased during the period for cash.

Dr		Plant and Machinery a/c Cr			
Date	Particulars	Amount	Date	Particulars	Amount
01/04/06	To Balance b/d	4,74,000	31/03/07	By Balance c/d	5,24,000
<u> </u>	To Bank a/c (?)	50,000			
		5,24,000			5,24,000
01/04/07	To Balance b/d	5,24,000			

Assumption :

Additional assets have been purchased during the period for cash.

Posting by name Bank on the credit side indicates an inflow and on the debit side indicates an outflow.

Dr Profit and Loss Appropriation			iation	Cr	
Date	Particulars	Amount	Date	Particulars	Amount
31/03/07	To Balance c/d	17,64,000	01/04/06	By Balance b/d	14,78,000



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COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: IV B

BATCH-2016-2019

17,64,000	01/04/07	By Balance b/d	17,64,000 17,64,000
	31/03/07	By Funds From Operations (?)	2,86,000

Assumption :

Funds have been generated through operations during the period.

Treat the Funds from operations posting as if it is a posting by name bank.

Funds Flow Statement

Funds Flow Statement for the period from 31/03/06 to 31/03/07

Particulars	Amount	Amount
a) Sources (Inflow) of Funds		
	2,50,000	
1) Share Capital	2,86,000	5,36,000
2) Funds from Operations		
[P/L appropriation account]		
b) Applications (Outflow) of Funds		
1) Land and Buildings	3,50,000	
2) Plant and Machinery	50,000	
3) Bank Loan	3,00,000	7,00,000
	1	

### **Sum 3:**

Following are the Balance Sheets of BROYHILL Industries Ltd, as on 31.12.2005 and



CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

Established Under Section 3 of UGC Act, 1956)

#### COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: IV B

BATCH-2016-2019

### 31.12.2006

### Balance Sheet of M/s BROYHILL Industries Ltd,

Liphilition	As on 31st December		Assots	As on 31st December	
Liaomues	2005	2006	Assets	2005	2006
Share capital Debentures Reserve Profit & Loss a/c Creditors Bank Loan Fixed Deposits Provision for Depreciation on Buildings on Plant & Machinery Provision for: Bad & Doubtful Debts Taxation	12,00,000 4,00,000 3,00,000 2,50,000 4,50,000 8,00,000 2,00,000 12,000 40,000 60,000 50,000	16,00,000 6,00,000 3,50,000 5,00,000 3,80,000 13,00,000 - 6,000 48,000 70,000 1,20,000	Goodwill (at Cost) Plant and Machinery (Cost) Furniture Buildings Investments Land Debtors Stock Bank Preliminary expenses	6,00,000 8,00,000 2,00,000 6,00,000 2,20,000 3,50,000 3,38,000 6,00,000 40,000 14,000	5,50,000 14,90,000 2,00,000 10,00,000 - 4,70,000 3,72,000 8,00,000 80,000 12,000
	37,62,000	49,74,000		37,62,000	49,74,000

You are required to analyse the Funds Flow and the Changes in working Capital in as much
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COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: IV B

BATCH-2016-2019

detail as possible, using the following additional details available.

M/S BROYHILL Industries Ltd

Schedule/Statement of Changes in Working Capital for the period from 31/12/05 to 31/12/06

	Balance as o	n 31 <sup>st</sup> March	Working Capital Change		
Particulars/Account	2005	2006	Increase	Decrease	
a) CURRENT ASSETS	2 28 000	2 72 000	24.000		
1) Debtors 2) Stock	6,00,000 40,000	3,72,000 8,00,000 80,000	2,00,000 40,000	-	
3) Bank					
TOTAL	9,78,000	12,52,000	2,74,000	-	
b) CURRENT LIABILITIES					
<ol> <li>Creditors</li> <li>Provision for Bad Debts</li> <li>Provision for Taxation</li> </ol>	4,50,000 60,000 50,000	3,80,000 70,000 1,20,000	70,000	10,000 70,000	
TOTAL	5,60,000	5,70,000	70,000	80,000	
Working Capital [(a) - (b)]	4,18,000	6,82,000			
		TOTAL	3,14,000	4,78,000	
Net	2,64,000				

Dr

Profit and Loss Appropriation a/c

Cr

Prepared by R.Subasree, Department of Commerce, KAHE



CLASS: III B.COM BPS

COURSE CODE: 16BPU602A

COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: IV B

BATCH-2016-2019

Particulars	Amount	Particulars	Amount
To Reserve a/c To Profit and Loss a/c To Goodwill a/c To Reserve for Depreciation on Plant and Machinery To Machine Sale a/c To Depreciation on Furniture To Reserve for Depreciation on Building To Preliminary Expenses	$30,000 \\ 2,50,000 \\ 50,000 \\ 20,000 \\ 8,000 \\ 44,000 \\ 4,000 \\ 2,000$	By Building Sale a/c By Investments a/c <b>By Funds From Operations</b> (?)	20,000 24,000 3,64,000
-	4,08,000		4,08,000

# **Statement for Calculation of Funds from Operations**

Particulars	Amount	Amount
Current Period Profit Capitalised Add: Losses/Appropriations debited to Profit/Loss a/c		2,50,000
1) Reserve created	30,000 50,000	



CLASS: III B.COM BPS	COURSE CODE: 16BPU602A
KARPAGAM COURSE NAME: COST AND MANAG	GEMENT ACCOUNTING
ACADEMY OF HIGHER EDUCATION UNIT: IV	BATCH-2016-2019
Established Under Section 3 of UGC Act, 1956)	
<ul> <li>2) Goodwill written off</li> <li>3) Reserve for Depreciation on Plant and Machinery</li> <li>4) Loss on Sale of Machine</li> <li>5) Depreciation on Furniture</li> <li>6) Reserve for Depreciation on Building</li> </ul>	20,000 8,000 44,000 4,000 2,000 1,58,000
7) Preliminary Expenses Written off	2,000 1,58,000
Less: Gains and Adjustments credited to Profit/Loss a/c	4,08,000
<ol> <li>Profit on Sale of Building</li> <li>Profit on Sale of Investments</li> </ol>	24,000 44,000
Funds From Operations	3,64,000

Statement of Sources and Applications of Funds for the period from\_\_\_\_\_to \_\_\_\_

Sources/Inflows of Funds	Amount	<b>Applications/Outflows of Funds</b>	Amount
Share Capital (Stock)	50,000	Purchase of Plant and Machinery	8,30,000
Share Capital (Cash/Bank)	3,00,000	Purchase of Furniture	44,000
Debentures	2,00,000	Purchase of Buildings	4,50,000
Bank Loan	5,00,000	Fixed Deposits Cleared	2,00,000

Prepared by R.Subasree, Department of Commerce, KAHE



#### CLASS: III B.COM BPS COURSE CODE: 16BPU602A COURSE NAME: COST AND MANAGEMENT ACCOUNTING UNIT: IV BATCH-2016-2019

tablished Under Section 3 of UGC Act, 1956)				
Plant Sale Building Sale Investments Sale Land Sale Funds from Operations	1,20,000 1,10,000 2,44,000 1,70,000 3,88,000	Purchase of Land	2,70,000	
	20,58,000		17,94,000	
		Change in Fund (Working Capital)	2,64,000	

KARPAGAM ACADEMY OF HIGHER EDUCATION III B.COM (BPS) (2016 - 2019 BATCH)							
VI SEMESTER COST AND MANAGEMENT ACCOUNTING (16RPU602A)							
MULTIPLE CHOICE QUESTIONS ( Each	MULTIPLE CHOICE QUESTIONS (Each question carries one mark) PART A - Online Examination						
	UNIT I						
Ouestion	Opt 1	Opt 2	Opt 3	Opt 4	Answer		
is ascertainment of costs after they have been incurred.	Marginal costing	Historical costing	Direct costing	Indirect costing	Historical costing		
is used of same costing principle and / or practices by several undertaking for	Uniform costing	Marginal costing	Standard costing	Direct costing	Uniform costing		
methods has been dropped from the latest CIMA terminology.	Multiple costing	Farm costing	Operating costing	Operating Expenses	Farm costing		
Cost accounting can be used only by concerns.	Big	Small	Medium	Private	Big		
Many theories can be proved or disproved in the light of basic principles of	Cost accounting	Management accounting	Financial accounting	Financial management	Financial accounting		
cost are those costs incurred to maintain the earning capacity of the firm.	Capital	Revenue	Direct	Indirect	Capital		
Management accounting involves	Recording of costs	Recording of transaction	Preparation of accounts	Analysis and interpretation of data	Analysis and interpretation of		
Management accounting is also known as	Cost accounting	Financial accounting	Corporate accounting	Decision accounting	Decision accounting		
Management accounting functions are	Complementar y in nature	Contradictory nature	Neutral in effect	Not effective	Complementary in nature		
Management accounting provides valuable services to management in performing	Planning functions	Controlling functions	Co-ordinating functions	All managerial functions	All managerial functions		
Management accounting is	An extension of financial	An extension of cost accounting	A blend of these two and of	An extension of Corporate	A blend of these two and of financial		
Management accounting is concerned with formulation of to meet enterprise	Plans	Cost	Risk	Mission	Plans		
Installation of management accounting is purely	Compulsory	Optional	Not require	Not effective	Optional		
The term of appointment of financial controller may be fixed by the	Board of Directors	Chief financial officer	Memorandum	Employees	Board of Directors		
Financial accounting deals with	Determination of costs	Determination of profits	Determination of prices	Determination of demand	Determination of profits		
The term management accountancy was first used in	1910	1950	1925	1940	1950		

Preparation of financial accounts is compulsory for	Sole trader business	Partnership firm	Join stock companies	Public Companies	Join stock companies
is the oldest branch of accounting.	Management accounting	Cost accounting	Financial accounting	Corporate accounting	Financial accounting
Management accounting also comprises the preparation of financial reports for non-	Share holders	Creditors	Share holders, Creditors & Tax	Government	Share holders, Creditors & Tax
Management accounting and cost accounting are	Supplementary to each other	Complementary to each other	Independent to each other	Opposite to each other	Complementary to each other
is also known as Management oriented accounting.	Management accounting	Cost accounting	Financial accounting	Corporate accounting	Management Accounting
is concerned with accounting information which is useful to management	Management accounting	Cost accounting	Financial accounting	Corporate accounting	Management Accounting
is the general accounting which relates to the recording of business	Financial accounting	Cost accounting	Management accounting	Final accounts	Financial accounting
is the process and techniques of ascertaining costs.	Financial accounting	Cost accounting	Management accounting	Final accounts	Cost accounting
is important part of management accounting	Budgeting	Statistics	Inventory control	Interpretation of data	Interpretation of data
The primary objective of is to enable the management to maximize or	Cost accounting	Financial accounting	Management accounting	Corporate accounting	Management accounting
The main objective of management accounting is to present	Cost	Management	Financial	Corporate	Financial
Management accounting makes process more modern and scientific by	Forecasting	Planning	Budgeting	Decision Making	Decision Making
Management accounting is a useful advice of managerial	Planning	Control	Motivation	Forecasting	Control
Return on capital employed is one of the tools of	Financial accounting	Management accounting	Cost accounting	Corporate accounting	Management accounting
of data are considered as back bone of management accounting.	Modification	Analysis and interpretation	Communication	Co-ordination	Analysis and interpretation
Management accounting is an important medium of	Motivation	Co-ordination	Communication	Delegation	Communication
has more or less become compulsory or statutory for every business.	Financial accounting	Management accounting	Cost accounting	Corporate accounting	Financial accounting
costs are partly fixed and partly variable in relation to output	Fixed	Variable	Semi variable	Direct	Semi variable
cost are those costs incurred to maintain the earning capacity of the firm.	Capital	Revenue	Deferred revenue expenditure	Loss	Capital

cost is a cost which is normally incurred at a given level of	Normal	Explicit	Implicit	Sunk	Normal
output in the					
Variable cost per unit	Remain fixed	Fluctuates with the volume of	Varies in sympathy with the	Production	Fluctuates with the volume of
Incremental cost is a type of	Differential cost	Out-of-pocket cost	Conversion cost	Sunk cost	Differential cost
Fixed cost per unit increases when	Production volume	Production volume	Variable cost per unit decreases	Variable cost per unit increases	Production volume decreases
Opportunity cost helps in	Ascertainment of cost	Controlling cost	Making managerial	Calculating production cost	Making managerial decisions
Management accounting system cannot replace	Management	Administartion	Management & Administration	Administartion only	Management & Administration
Closing stock are valued at cost price or Financial accounting Cost accounting	Manag	gement market price	whichever is less	Company accounts	Financial accounting
for improved or new products, new or improved methods etc	Development	Policy	Research	Policy	Research
action of a specified number of an undertaking is known as cost	Uncontrollable	Controllable	Flexible	Sunk	Controllable
records only monetary transaction	Financial accounting	Management accounting	Cost accounting	Corporate accounting	Financial accounting
is the essence of managerial activity.	Co-ordination	Control	Motivation	Decision Making	Co-ordination
supplies analytical information regarding various alternatives and the choice	Financial accounting	Management accounting	Cost accounting	Corporate accounting	Management accounting
Return on capital employed is one of the tools of Management accounting is a useful advice of managerial	Financial accounting	Management accounting	Cost accounting	Corporate accounting	Management accounting
Management accounting makes process more modern and scientific by providing significant information relating	Planning	Control	Motivation	Forecasting	Control
accounting is to present information to the management enable the management to maximize or minimize losses	Forecasting	Planning	Decision Making	Budgetting	Decision Making
	Cost	Financial	Cost	Company	Financial
	Financial accounting	Management accounting	Cost accounting	Corporate accounting	Management accounting
is important part of management accounting	Budgeting	Statistical	Inventory control	Interpretation of data	Interpretation of data

Material is issued by storekeeper against requisitions	issue	material	purchase	goods received	purchase
Basic objective of cost accounting is	tax compliance	financial audit	cost ascertainment	profit analysis	cost ascertainment
Process costing is suitable for	hospitals	oil reefing firms	transport firms	brick laying firm	oil reefing firms
Process costing is suitable for	Two	Three	Four	Several	Several
The cost which is to be incurred even when a business unit is closed is a	imputed cost	Historical cost	shunt cost	shutdown cost	shutdown cost
Direct expenses are also called	major expenses	chargeable expense	overhead expenses	sundry expenses	chargeable expenses

### KARPAGAM ACADEMY OF HIGHER EDUCATION III B.COM (BPS) (2016 - 2019 BATCH) - VI SEMESTER COST AND MANAGEMENT ACCOUNTING (16BPU602A) MULTIPLE CHOICE QUESTIONS ( Each Question carries one mark) PART - A (Online Examination) UNIT II

Question	Opt 1	Opt 2	Opt 3	Opt 4	Answer
Direct material+ Direct labour+ Direct expenses	Fixed cost	Prime cost	Factory cost	Total cost	Prime cost
Salary of general manager is generally treated as	Factory overhead	Administrative overhead	Selling overhead	Distribution overhead	Administrative overhead
of any product comprises of all direct cost	Work cost	Prime cost	Total cost	Sunk cost	Prime cost
means and represents the factory cost plus administrative expenses	Prime cost	Work cost	Cost of production	Cost of goods sold	Cost of production
Indirect material plus + indirect labour + = overhead	Indirect expenses	Direct labour	Direct expenses	Factory overhead	Indirect expenses
Which of the follwing is sales overhead?	Office salaries	Advertisement expenses	Factory rent	Indirect material	Advertisement expenses
What is the equation of prime cost?	Direct material+direct	Direct material+labour	Materials labour+direct	Materials labour+Cost of	Direct material+direct
What is the equation of cost of production?	Work cost + factory cost	Work cost + prime cost	Work cost x prime cost	Work cost + administrative	Work cost + administrative
Which of the following is equal to total cost?	Cost of production+selling	Cost of sales+ distribution	Cost of production +	Cost of Sales+selling and	Cost of production+sel
The work cost is also known as	Factory cost	Cost of manufacturing	Prime cost	Overhead	Cost of manufacturing
What is the other name for prime cost?	Future cost	First cost	Direct cost	Indirect cost	Direct cost
Which of the following is the advantage of cost sheet?	It helps in fixing price	It facilitates cost reduction	It facilitates the preparation of	It helps in maintaining	It helps in fixing price
Which of the following is the distribution overhead?	Cost of goods sold	Direct wages	Warehouse rent	Warehouse Expenses	Warehouse rent
The expenses other than direct expenses, indirect material and labour is called	Indirect expenses	Chargeable expenses	Production expenses	Sales Expenses	Indirect expenses

Which of the following comes under the administrative overhead?	Office rent, taxes. Lighting and	Salary of Managing director	Direct expenses	Distribution Costs	Office rent, taxes. Lighting
The indirect expenses incurred to create and maintain demand for the product or services is	Selling overhead	Distribution overhead	Selling and distribution	Administrative Overhead	Selling and distribution
The expenses which are not considered for computing the total cost is called	Non-cost expenses	Overhead	Direct expenses	Indirect Expenses	Non-cost expenses
Which of the following equation is correct?	Selling price = cost of sales+	Selling price= cost of sales- loss	Selling price= cost of sales +	Selling price= cost of	Selling price = cost of sales+
Quantitative perpetual inventory means	ABC analysis	Stores ledger	Continuous stock taking	EOQ	Stores ledger
EOQ is related to	Fixed cost	Ordering and carrying cost	Variable cost	Total cost	Ordering and carrying cost
ABC analysis stands for	Always best control	Always better control	Automated better control	Adjusted best control	Always better control
Reorder level is calculated by using the following formula	Maximum consumption x	Maximum consumption x	Minimum consumption x	Economic order quantity	Maximum consumption x
According to which method of pricing issues is close to current economic values?	LIFO	HIFO	FIFO	Weighted average price	LIFO
Direct material is a	Variable cost	Fixed cost	Semi variable cost	Semi fixed cost	Variable cost
method of issuing materials are priced at a predetermined rate?	specific price method.	inflated price method	Replacement price method.	Standard price method	Standard price method
The term base stock in the method of issuing materials represents the	quantity of stock being issued	maximum stock	Minimum stock	stock in balance	minimum stock
The ascertainment of costs after they have been incurred is known as	marginal cost	historical cost	sunk cost	notional cost	historical cost
Cost unit of a sugar industry can be	per liter	per tonne	per acre	per meter	per tonne
Audit fees is a part of	works on cost	selling overhead	distribution overhead	adminstration overhead	adminstration overhead
Danger level is	consumption * Lead time for	consumption * reorder period	consumption * minimum reorder	consumption * maximum	consumption * Lead time for
Economic Order Quantity is also known as	ordering cost	Optimal order quantity	minimum level	maximum level	Optimal order quantity

Which one of the following is not considered for preparation of cost sheet?	Factory cost	goodwill written off	labour cost	Selling cost	goodwill written off
Sale of defectives is reduced from	prime cost	work cost	cost of production	cost of sales	cost of production
Total of all direct costs is named as	prime cost	work cost	cost of production	cost of sales	prime cost
Indirect material scrap is adjusted along with	prime cost	factory cost	labour cost	cost of production	factory cost
Elements of costs are	Three types	Four types	Five types	Seven types	Three types
The piece rate system is also called	Payment by result	Standard rate	Quality rate system	Price rate system	Payment by result
What are the two main methods of wage payment system?	and piece rate system	and time rate system	and unit rate system	Quality rate system	system and piece rate
Direct alabour cost can be to cost centre or cost unit.	Identified	Allocated	Identified and allocated	calculated	Identified and allocated
What is the other name of direct labour?	Product labour	Process labour	Work cost labour	Indirect cost labour	Process labour
Which of the following is direct labour?	Labour engaged in actual production	supervision, foremen,etc.	Inspectors analyst for production	Labour engaged in production	engaged in actual
Idle time represents	which workers paid when	which workers paid when	which workers not paid when	which workers paid	which workers paid when
The differential piece rate plan was first evolved by	Merric	James Rowan	G and J Weir limited	F.W. Taylor	F.W. Talor
Payment by results relate to	Time rate	Piece rate	Guaranteed time rate	Bonus	Piece rate
is not included in the labour cost	Basic pay	contribution to ESI	Employer's contribution to PF	Dearness allowance	contribution to PF
In Taylor's differential piece rate system piece rates are set for each job.	Two	Three	Straight	662/3	Two
In LIFO method, the materials	Received last are issued first	Received first are issued first	Received average are issued first	Issuee based on standard price	Received last are issued first

In FIFO method, the value of closing stock will be at	The latest price	Old price	Inflated price	Deflated price	The latest price
In FIFO method, the	New stocks issued first	Old stocks issued first	stocks are issued first	No issue is taking place	New stocks issued first
Reorder level is calculated by using the following formula	consumption x Maximum reorder	consumption x Minimum reorder	consumption x Minimum reorder	consumption x Standard price	consumption x Maximum
What is the other name for economic order quantity?	Standard order quantity	Optimum quantity	Economic lot size	Economic price	Economic lot size
be ordered when the stock level reaches the	Danger level	Maximum level	Minimum level	Average level	Minimum level
The economic order quantity	is a stock level	is not a stock level	May or may not be a stock level	is optimum stock level	is optimum stock level
The store is headed by	Stores manager	Stores keeper	Stores manager or storeskeeper	Purchase manager	Stores keeper
The stores department is a	Service department	Production department	Production department	HR Department	Service department
For effective material control, purchasing should be	Centralized	Decentralized		valuable materials only	Centralized
Stock control through stocks and EOQ is called	Perpetual inventory system	Demand and supply method	importance and exception	Sales and inventory method	Demand and supply method
Perpetual inventory system involves	Bin card and stores ledger	Bill of materials and material requisition	Purchase requisition and purchase order	Inward and outward invoices	Bin card and stores ledger
Weighted average is computed by dividing total purchase cost of material in stock with total	good	quantity	quality	qualified	quantity
LIFO method of pricing of material issues is more suitable when	material prices are rising	material prices are falling	material prices are fluctuating	material prices are constant	material prices are rising

### KARPAGAM ACADEMY OF HIGHER EDUCATION III B.COM (BPS) (2016 - 2019 BATCH) VI SEMESTER COST AND MANAGEMENT ACCOUNTING (16BPU602A) MULTIPLE CHOICE QUESTIONS ( Each question carries one mark) PART A - Online Examination UNIT III

Question	opt 1	opt 2	opt 3	opt 4	Answer
Financial statement is outcome of accounting	Cost	Management	Financial	corporate	Financial
A comparative study of the financial statements of several year is called	Vertical analysis	Structural Analysis	Trend Analysis	Internal Analysis	Trend Analysis
is concern with future.	Forecasting	Directing	suppy of information	Increase in efficiency	Forecasting
The indicated quotient of two mathematical expression is known as	Ratio	Analysis	Working capital	Profit	Ratio
Current ratio is an example for ratio.	Balance Sheet	Income Statement	Profit and Loss Account	Inter Statement	Balance Sheet
ratio is an example for long term solvency ratio.	Gross Profit	Net Profit	Debt Equity	Current	Debt equity
The relationship between current assets and current liabilities is known as ratio.	Gross Profit	Net Profit	Current	Stock Turnover	Current
The ideal current ratio is	02:01	03:01	04:01	05:01	02:01
Liquid ratio is also known as ratio.	Current	Acid test	Velocity	Profitability	Acid test
Operating cost/ net sales X 100=	Gross profit ratio	Net profit ratio	Operating ratio	Current ratio	Operating ratio
The ideal liquid ratio is	01:02	01:01	01:03	01:04	01:01

Total sales / debtors =	Acid test ratio	Inventory turn over ratio	Debtors turnover ratio	Current ratio	Debtors turnover ratio
The excess of current assets over current liabilities is known as	Current ratio	Liquid ratio	Working capital	Debt	Working Capital
is to measure the overall performance and effectiveness of the firm.	Profitability	Liquidity	Activity	Leverage	Profitability
Efficiency ratio are also called as ratios	Turn over	Profitability	Liquidity	Leverage	Turn over
A inventory ratio indicates an inefficient management of inventory.	Low	High	Average	Abnormal	Low
Profit and loss account is also called as the statement.	Income	Balance sheet	Trading account	Asset account	Income
Proprietary ratio is also known as	Equity ratio	Debt equity ratio	Current ratio	Gross profit ratio	Debt equity ratio
With the help of current assets and current liabilities, one can calculate.	Current ratio	Gross profit ratio	Net profit ratio	Operating ratio	Current ratio
Current ration 2.5 ; current liabilities Rs 1,00,000 current assets=	40,000	2,50,000	2,00,000	3,00,000	2,50,000
Average of gross profit Rs. 40,000 ; rate of gross profit 25% sales=	1,00,000	10,000	1,50,000	1,60,000	1,60,000
5000 in excess of opening stock. Then the closing stock is	42,500	72,500	80,000	40,000	42,500
measure of the relationship between two accounting figure	Accounting ratio	Property ratio	Current ratio	Gross profit ratio	Accounting ratio
ratios help to management in evaluating the performance.	Acitivity	Solvency	Profitability	Liquidity	Acitivity
solvency is indicated by debt equity ratio.	Long term	Short term	Medium term	Current	Long term
The primary objective of ratio is to measure the liquidity.	Gross profit	Net profit	Current	Inventory	Current

Average receivable period is 2 months, hence debtors turnover will be	6 Times	5 Times	4 Times	7 Times	6 Times
If the operating ratio is 75%; the net operating profit ratio will be	25%	100%	75%	20%	25%
ratio establishes the relationship between total operating expenses and sales.	Operating	Current	Liquidity	Turn over	Operating
Total assets minus total liabilities is equal to	Net Assets	Owner's fund	Share holders fund	Liabilities	Owners fund
ratio is also known as rate of dividend to net profit	Payout	Price to earnings	Gross profit	Net profit	Payout
The reciprocal of payout ratio is	Interest cover	Dividend cover	Earnings per share	Debt	Dividend cover
Activity ratios are also known as	Performance ratios	Liquidity ratios	Profitability ratios	Current ratio	Performance ratio's
indicates the number of times the payable rotate in a year.	Creditors velocity	Debtors turnover	Stock turnover	Debtors velocity	Creditors velocity
ratio attempts to measure the utilization and effectiveness of the use of current assets.	Current assets turn over	Current	Net current assets turnover	Gross profit	Current
Financial ratio include	Fixed assets ratio	Current ratio	Quick ratio	Combination of all three ratios	of all three ratios
Common statement is also known as	100 Percentage Statement	50 Percentage Statement	75 Percentage Statement	25 Percentage Statement	
analysis refers to the comparison financial data of a company for several years	Vertical	Horizontal	Horizontal & Vertical	Parallel	Horizontal & Vertical
relationship of the various items in the financial statements of one accounting period.	Vertical	Horizontal	Horizontal & Vertical	Parallel	Vertical
Current ratio is 2. Current assets = Rs 40,000 then current liabilities=	Rs. 20,000	Rs. 15,000	Rs. 25,000	Rs. 30,000	Rs. 20,000
Financial statements are	Estimates of facts	Anticipated facts	Recorded facts	Forecasted facts	Recorded facts

current ratio is 3:1 and quick ratio is1:1 then the value of stock in trade is	1,00,000	2,00,000	3,00,000	6,00,000	6,00,000
Current assets of a concern = Rs. 3,00,000 current liabilities = 1,00,000 then current ratio	03:01	02:01	01:01	03:03	03:01
If current ratio is 1:5:1 and current liability is 50,000 then the current assets could be	Rs. 20,000	Rs. 75,000	Rs. 50,000	Rs. 1,00,000	Rs. 75,000
Higher the ratio, the lower the profitability is applicable to	Gross profit ratio	Net profit ratio	Operating ratio	Current ratio	Operating ratio
Which of the following transaction with results in change in current ratio?	Paid 90 days bank loan	Liquidated long term liability	merchandise on credit	payment of an account	long term liability
Financial statement records only	Monetary facts	Non-monetary facts	Profitability facts	Theoritical facts	Monetary facts
Network of business means	Equity capital	Total assets	Total assets - Total liabilities	Fixed assets- current assets	Total liabilities
An in debt collection period indicates blockage of funds in debtors.	Increase	Decrease	High	Low	Increase
investments or over investment or under investment in fixed assets.	Fixed assets turn over ratio	Fixed assets to current assets ratio	Fixed assets to capital ratio	Fixed assets to profit ratio	Fixed assets to capital ratio
is the between sales or cost of sales and share holder's fund.	Debt equity ratio	Owned capital turnover	Fixed assets ratio	Operating ratio	Owned capital turnover
Total sales – sales return =	Cash sales	Credit sales	Net sales	Net profit	Net sales
Cash sales + credit sales +	Total sales	Sales return	Cost of purchase	Cost of sales	Total sales
Cost of goods sold + closing stock – opening stock=	Purchase	Sales return	Sales	Puechase return	Purchase
Opening stock + closing stock/2 =	Total sales	Total assets	Total stock	Average stock	Average stock
Opening stock + purchase – closing stock =	Sales	Purchase	Working capital	Cost of goods sold	Cost of goods sold

Opening debtors + closing debtors /2	Total creditors	Total Debtors	Average Debtors	Average creditors	Average Debtors
An ideal debt equity ratio is	1	2	3	4	1
Low turnover of stock ratio indicates	position	monopoly situation	over investment in inventory	liquidity position	investment in inventory
Marginal cost is	Prime cost	Variable cost	Works cost	Cost of production	Variable cost

### KARPAGAM ACADEMY OF HIGHER EDUCATION III B.COM (BPS) (2016 - 2019 BATCH) VI SEMESTER COST AND MANAGEMENT ACCOUNTING (16BPU602A) MULTIPLE CHOICE QUESTIONS (Each question carries one mark) PART A - Online Examination UNIT IV

Question	Opt 1	Opt 2	Opt 3	Opt 4	Answer
may be regarded as the life blood of a business	Working capital	Current asset	Fixed asset	Current liability	Working capital
There are concepts of working capital	One	Тwo	Three	Four	Two
The term represent the difference between current assets and current liabilities	Gross working capital	Net working capital	Capital	Assets	Net working capital
The networking capital can be	Positive	Negative	High	Low	Positive
As indicated concepts of working capital have functional significance.	Net	Gross	Net or Gross	Assets	Net
is the most important source for raising the permanent working capital.	Floating of debentures	Issue of share	Pouching back of profits	Loans	Issue of share
Working capital =	Current assets – current liabilities	Current liabilities - Quick assets	Rent assets + current liabilities	Fixed assets + current assets	Current assets – current liabilities

Companies have to follow the finacial year	April 1 <sup>st</sup> to March 31 <sup>st</sup>	March 1 <sup>st</sup> to April 30 <sup>th</sup>	Jan1st to Dec 31 <sup>st</sup>	July 1 <sup>st</sup> to June 30th	April 1 <sup>st</sup> to March 31 <sup>st</sup>
The statement which shows the periodical increase or decrease of funds is called	Fund flow statement	Cash flow statement	Working capital statement	Income statement	Working capital statement
Fund flow statement is based on the concept of	Business entity	Going concern	Accountin g period	Money measurement	Going concern
The term fund also refers to	Money	Cash	Capital	Any form of financial respurces	Any form of financial respurces
Excess of current assets over current liabilities is called	Net working capital	Net current assets	Free current assets	Net current liability	Net working capital
The term flow of funds refers to	Change in funds	Flow of cash	Fund flow statement	Cash flow statement	Change in funds
The term current account refers to	Current assets	Current liabilities	assets and current liabilities	Non-current assets	current assets and current liabilities
The term non-current account refers to	Capital	Liabilities	Long-term liabilities	Capital and long-term liabilities	Capital and long-term liabilities
Transactions between may cause the flow of funds	Current liabilities and fixed assets	liabilities and capital	liabilities and fixed assets	Fixed assets	Current liabilities and fixed assets
The fund flow analysis is of primary importance to	Personnel management	Quality control management	Financial manageme nt	Auditing	Financial management

The sources side of funds flow statement shows the sources of funds of a firm	Internal	External	Internal and external	Not Internal and external	Internal and external
Fund flow statement is complementary to	Balance sheet	Income statement	statement and balance	Trading account	Income statement and balance sheet
Which of the following is the source of fund?	Issue of shares	Decreasing long term loans	Purchase of fixed assets	Short trem loans	Issue of shares
Which of the following is an application of funds?	Income from investments	Funds from operation	Funds lost in operation	Income from fixed assets	Funds lost in operation
What is meant by funds from operation?	Net profit	Gross profit	from business operations	Gross Loss	Net profit from business operations
To find out funds from operation, which of the following items should be added with net profit?	preliminary expenses written off	Land and bulidings	interest received	indirect expenses	preliminary expenses written off
Which of the following item should be deducted from net profit to find out funds from operation?		Rent paid	sale and revaluation of assets	Loss on sale of fixed assets	Refund of tax, divided received
Which one of the following is an important step in preparing a funds flow statement?	changes in working capital statement	Opening accounts for current assets	cash from operation statement	accounts for current Liabilities	changes in working capital
The schedule of changes in working capital shows	Increase in working capital	Decrease in working capital	decrease in working capital	Decrease in current assets	decrease in working capital
In funds flow analysis, the adjusted profit and loss account is prepared to know	Funds from operation	Funds lost in operation	from operation and funds	operation or funds lost in operation	operation or funds lost in operation

Non-operating items refer to which are not directly connected to the main operation of a business	Expenses and income	Expenses and assets	Contracts and agreements	Expenses only	Expenses and income
A company will get cash from	Sales	Creditors	Purchase of assets	Rent paid	Sales
A statement prepared to show the sources and application of cash is known as	Funds flow statement	Working capital statement	Cash flow statement	Cash from operation	Cash flow statement
The cash flow statement is prepared for	A particular period	One year	Two years	Five year	One year
The term cash includes	Sundry debtors	Accounts receivable	Bills receivables	Bank balance	Bank balance
The cash flow statement analysis helps the management in planning	Reinvestment schedule	Replacement of assets	Debit arrangeme nts	Long term loans	Replacement of assets
Is it possible to prepare projected cash flow statement?	Possible	Sometimes possible	Impossible	Possible for a limited company	Possible
Which is meant for short-term planning?	Cash flow statement	Working capital statement	Fund flow statement	Funds from operation	Cash flow statement
Which of the following statement is useful for long range planning?	Fund flow statement	Funds form operation	Balance sheet	Cash flow statement	Fund flow statement
The adjusted profit and loss account is prepared to ascertain	Cash trading profit	Cash trading loss	trading profit or loss	Current liability	Cash trading profit or loss

	Non-cash items	Non-operating	items and Non	Non-current	items and Non operating items
Cash trading profit excludes—	only	items only	operating	assets	only
Increase in current assets will result in	Outflow of cash	Inflow of cash	No change in cash	Payments pending	Outflow of cash
Increase in current liabilities will result in	Outflow of cash	Inflow of cash	No change in cash	Payments received in advance	Inflow of cash
Standard costs are	Ideal costs	Normal costs	Average costs	Reasonable attainable costs	Reasonable attainable costs
The type of costing which is most suitable for cost control purposes is	Standard costing	Post costing	Continuou s costing	Marginal Costing	Standard costing
Budgetary control and standard costing is to	Interdependent on each other	Independent of each other	related with each other	Inter-related with current assets	Inter-related with each other
One of the objective of standard costing is to	Promote and measure performance	Control and reduce costs	Simplify production operations	Set cost of manufacture	Control and reduce costs
The type of standard that is best suited from cost control point of view is	Ideal or theoretical standard	Expected standard	Normal standard	Basic standard	Expected standard
Direct material price variance is computed by multiplying the	with the difference between standard	with the difference between	with the difference between	with the difference between	quantity with the difference between
Standard costing used	Cost control	Performance appraisal	Decrease Inventory	Inventory turnover	Cost control

Standard costing is	A technique	A procedure	A method	A system	A technique
Standard cost is	Past cost	Future cost	Planned cost	Concurrent cost	Planned cost
variance is the difference between the standard cost of materials specified and the actual cost of materials used	Material cost	Material price	Material usage	Material yield	Material cost
Material cost variance may be classified into groups	Two	Three	Four	Five	Two
Which department is responsible for material price variance	Sales department	Production department	Finance department	Accounting department	Production department
variance arises due to the difference between standard usage and actual usage of material	Material yield	Material usage	Material price	Material mix	Material price
Which department is responsible for labour rate variance?	Sales department	Personal department	Finance department	Accounting department	Personal department
Standard input allows for one unit is divided by standard cost per output unit for variable direct cost input to calculate	Standard price per input unit	Standard price per output unit	Standard cost per input unit	Standard cost per output unit	Standard price per input unit
Consideration of decreased operating income relative to budgeted amount in static budget is classified as	Revenue variance	Cost variance	Favorable variance	Unfavorable variance	Unfavorable variance
Quantity of input which is carefully determined is called	Output unit	Input unit	Standard input	Standard output	Standard input

Variance is stated difference between expected performance and the	Revenue planning	Actual results	Marketing results	Cost planning	Actual results
A costing system which focuses on individual activities as particular cost object is classified as	Activity based costing	Improved costing	Learned improveme nts	Positive effectiveness	Activity based costing
Difference between actual input variance and budgeted input variance is called	Price variance	Actual output price	Budgeted output price	Actual selling price	Price variance

### KARPAGAM ACADEMY OF HIGHER EDUCATION III B.com(BPS) (2016 - 2019 BATCH) - VI SEMESTER COST AND MANAGEMENT ACCOUNTING (16BPU602A) MULTIPLE CHOICE QUESTIONS ( Each Question carries one mark) PART - A (Online Examination)

UNIT V

Question	opt 1	opt 2	opt 3	opt 4	Answer
The deviation of the actual cost from the standard cost is known as	Profit	Loss	Variance	invariable	Variance
variance is the difference between standard cost of labour and actual cost of labour	Labour cost	Labour rate	Labour efficiency	Idle time	Labour Cost
Labour efficiency variance is	Labour mix variance+labour	Labour rate variance+Labo	Labour mix variance+Labou	Labour Cost variance+ Labour	Labour rate variance+Labou
concerned with the control of expenses	Budgetary control	Standard costing	Marginal costing	Cost Management	Standard costing
is one which tends to vary does with the volume of output.	Fixed cost	Variable cost	Total cost	Average cost	Variable cost
As fixed costs arecosts	Total	Variable	Average	Period	Period
The difference between the contribution and fixed costs is the	Net profit or loss	Net profit	Gross profit	Net loss	Net profit or loss
Fixed costs remain constantof level of activity.	Respective	Irrespective	Contribution	Variable	Irrespective
expenses are those expenses which vary according to the units of production.	Fixed	Variable	Semi- variable	Marginal	Variable
expenses are those which are partly constant and partly variable.	Fixed	Variable	Semi- variable	Marginal	Semi- variable
The difference between sales value and variable cost is known as	Profit	Contribution	BEP	Fixed cost	Contribution

Contribution=	Sales – variable cost	Sales – fixed cost	Sales + variable cost	Sales + fixed cost	Sales – variable cost
Marginal cost is also known as	Period cost	Fixed cost	Volume cost	Prime cost	Volume cost
Fixed cost is also known as	Period cost	Fixed cost	Volume cost	Prime cost	Period cost
indicates the relation ship of contribution to sales	P/v ratio	Contribution	Sales	Profit	P/v ratio
Marginal cost =	Prime cost – total variable	Total variable cost – prime	Prime cost + total variable	Prime cost + total fixed cost	Prime cost + total variable
Marginal cost =	Total cost – fixed cost	Total cost – variable cost	Total cost + fixed cost	Total cost + variable cost	Total cost – fixed cost
Total cost 400, fixed cost Rs. 200 marginal cost =	600	200	500	100	200
Profit Rs.800 fixed cost Rs. 200 Contribution =	600	800	1000	200	1000
is one which tends to be unaffected by variation in volume of output.	Total cost	Average cost	Marginal cost	Fixed cost	Fixed cost
P/v ratio can be improved by	Increase sales once	Decreasing selling price	Increasing the variable cost	Increasing the value of sale	Increasing the value of sale
= sales X p/v ratio.	Sales	Profit	Contribution	Fixed cost	Contribution
Contribution minus profit is equal to	Sales	Loss	Variable	Fixed cost	Fixed cost
P/V ratio=	Profit volume ratio	Profit variable ratio	Production volume ratio	Price Volume ratio	Profit volume ratio
is the point at which sales revenue is equal to total cost.	Margin of safety	Break even	Fixed cost	Variable cost	Break even

Is the angle at which sales line cuts the total cost line	BEP	Angle of incidence	Contribution	Variable cost	Angle of incidence
If the angle of incidence isat indicates that the profits are being made at higher rate	Large	Small	Neither large nor small	Flexible	Large
is the difference between the total sales revenue and the sales at breakeven point.	Actual sales	Margin of safety	Reducing the fixed costs	increase average cost	Margin of safety
Budget is prepared for a	Definite period of time	Indefinite period	period of one year	Period of six months	Definite period of time
A budget is a plan of action expressed in	Finanical terms	Non-financial terms	Financial and non-financial	Economic terms	Financial and non-financial
A budget is tool which helps the management in planning and control of	Production activities	Purchase activities	Sales activities	All business activies	All business activies
Budgetary control replace management in decision making	can	cannot	Sometimes can	the information is inadequate	cannot
The success of budgetary control system depends			All the		All the
upon the willing cooperation of	Shareholders	Creditors	functional areas	Management	functional areas
upon the willing cooperation of Recording of actual performance is	Shareholders a step in budgetary control	Creditors an advantage of budgetary	functional areas a limiation of budgetary	Management Systamatic of economic refom	functional areas a step in budgetary
upon the willing cooperation of         Recording of actual performance is         is a written record.	Shareholders a step in budgetary control Budgetary control	Creditors an advantage of budgetary Budges centers	functional areas a limiation of budgetary Budget manual	Management Systamatic of economic refom Budget officer	functional areas a step in budgetary Budget manual
upon the willing cooperation of         Recording of actual performance is         is a written record.         Usually the production budget is stated in terms of	Shareholders a step in budgetary control Budgetary control money	Creditors an advantage of budgetary Budges centers quantity	functional areas a limiation of budgetary Budget manual money or quantity	Management Systamatic of economic refom Budget officer money or quantity or both	functional areas a step in budgetary Budget manual money or quantity or both
upon the willing cooperation of Recording of actual performance is is a written record. Usually the production budget is stated in terms of The budgets are classified on the basis of	Shareholders a step in budgetary control Budgetary control money Time	Creditors an advantage of budgetary Budges centers quantity Function	functional areas a limiation of budgetary Budget manual money or quantity Flexibility	Management Systamatic of economic refom Budget officer money or quantity or both	functional areas a step in budgetary Budget manual money or quantity or both Function
upon the willing cooperation of         Recording of actual performance is         is a written record.         Usually the production budget is stated in terms of         The budgets are classified on the basis of            The cash budget and material budgets come under         the classification	Shareholders a step in budgetary control Budgetary control money Time Short period budget	Creditors an advantage of budgetary Budges centers quantity Function current budget	functional areas a limiation of budgetary Budget manual money or quantity Flexibility production budget	Management Systamatic of economic refom Budget officer money or quantity or both long term budget	functional areas a step in budgetary Budget manual money or quantity or both Function Short period budget

The short period budgets are usually prepared for a period of	Six months	Three months	One year	Two years	One year
Current budgets are usually prepared for a period of-	One to three months	one to two years	five years		One to three months
Functional budget relates toof the organisation	the production function	the purchase function	the marketing function	any function	any function
A sales budget is an estimate of expected sales during the budget period and stated in terms of	Money	quantity	Money or quanity	always by both	Money or quanity or both
Sales budget shows the sales details as	Money	quantity	Assets	Liability	Money
The budget committee consists of	managers	managers and creditors	budget officers	managing director, budget	managing director, budget
is a plan of estimated receipts and payment of cash for the budget period	Cash budget	Production budget	Sales budget	Organization Budget	Cash budget
Flexible budget variance for revenues of company is classified as	Selling price variance	Investment variance	Profit variance	Primary variance	Selling price variance
Which of the following method is used to prepare cash budget	receipts and payments method	the adjusted p& l a/c	the balance sheet method	all the above methods	all the above methods
Budget designed to remain constant irrespective of the level of operation is called	master budget	fixed budget	total budget	flexible budget	fixed budget
Budget which is designed to change according to the level of activity is called as	flexible budget	moving budget	changing budget	master budget	flexible budget
In flexible budget, the expenses are classifed as-	Fixed and variable	fixed, variable and semi-	Variable and semi-variable	fixed and semi- variable	fixed, variable and semi-
The technique of zero-base budgeting was introducted in 1961 in	US	UK	France	India	UK
In zero-base budgeting, the base is	previous year's performance	no base	competitor's performance	Current performance	no base

Sales budget is a type of-	flexible budget	functional budget	master budget	economic budget	functional budget
Budgetary control system helps the mangement in the matter of	planning and control	cost control	expansion	modernization	planning and control
Flexible budget amount is added to flexible budget variance to calculate	Static result	Actual result	Secondary result	Primary result	Actual result
Budgetary control is aof costing.	Mental	Technique	Kind	future	Technique
Budgetary control and budgets are the	Same	Different	Variable	moderate	Different
Both budgetary control andsystems are interrelated.	Marginal costing	Standard costing	Budgeting	accounting	Standard costing
The period covered by a budget is known as	Budget committee	Budget period	Budget manual	financial period	Budget period