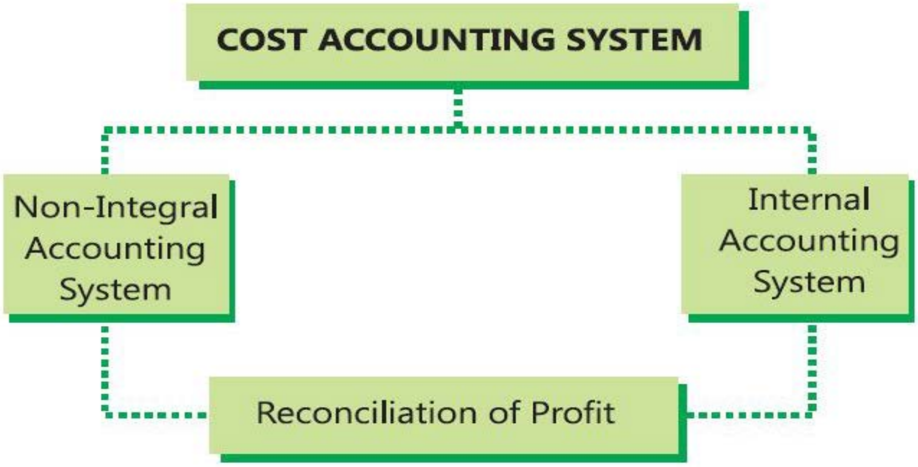
CHAPTER 7

COST ACCOUNTING SYSTEMS

LEARNING OUTCOMES

- Discuss the Cost Accounting System.
- Differentiate between Integral and Non- Integral system of accounting.
- Identify the ledgers maintained under Integral and Non-Integral accounting system.
- Analyse the reasons for differences in profit under financial and cost accounts.
- Prepare reconciliation statement for profit under financial and cost accounts.
- Discuss the accounting for management information and cost control.

CHAPTER OVERVIEW



7.1 INTRODUCTION

To operate business operations efficiently and successfully, it is necessary to make use of an appropriate accounting system. Such a system should state in clear terms whether cost and financial transactions should be integrated or kept separately (Non-integrated). **Where cost and financial accounting records are integrated, the system so evolved is known as integrated or integral accounting. In case cost and financial transactions are kept separately, the system is called Non-Integrated Accounting or Cost Control System.** While non-integrated system of accounting necessitates reconciliation between financial and cost accounts, no reconciliation between two sets of accounts is required under integrated accounting.

7.2 NON-INTEGRATED ACCOUNTING SYSTEM

It is a system of accounting under which separate ledgers are maintained for cost and financial accounts by Accountants. This system is also referred to as **cost ledger accounting system.** Under such a system the cost accounts restrict itself to recording only those transactions which relate to the product or service being provided. Hence items of expenses which have a bearing with sales or, production or for that matter any other items which are under the factory management are the ones dealt with in such accounts. This leads to the exclusion of certain expenses like interest, bad debts and revenue/income from 'other than the sale of product or service'.

A special feature of the non-integrated system of accounts is its ability to deal with notional expenses like rent or interest on capital tied up in the stock. The accounting of notional rent facilitates comparisons amongst factories (some owned and some rented).

Non-Integrated Accounting Systems contain fewer accounts when compared with financial accounting because of the exclusion of purchases, expenses and also Balance Sheet items like fixed assets, debtors and creditors. **Items of accounts which are excluded are represented by an account known as *Cost ledger control account*.**

The important ledgers to be maintained under non-integrated accounting system in the Cost Accounting department are the following:

(a) ***Cost Ledger* -** This is the **principle ledger** of the cost department in which impersonal accounts are recorded. This ledger is made self-balancing by maintaining therein a Control Account for each subsidiary ledger.

(b) ***Stores Ledger* -** It contains an account for each item of stores. The entries in each account maintained in this ledger are made from the invoice, goods received note, material requisitions, material received note etc. Accounts in respect of each item of stores show receipt, issue and balance in physical as well as in monetary terms.

(c) ***Work-in-Process Ledger* -** This ledger is also known as **job ledger**, it contains accounts of unfinished jobs and processes. All material costs, wages and overheads for each job in process are posted to the respective job account in this ledger. The balance in a job account represents total balance of job/work-in-process, as shown by the job account.

(d) ***Finished Goods Ledger* -** It contains an account for each item of finished product manufactured or the completed job. If the finished product is transferred to stock, a credit entry is made in the work-in-process ledger and a corresponding debit entry is made in this ledger.

7.2.1 Principal Accounts

The main accounts which are usually prepared when a separate Cost Ledger is maintained are as follows:

(1) ***Cost Ledger Control Account* -** This account is also known as **General Ledger Adjustment Account. This account is made to complete double entry.** All items of expenditure are credited to this account. Sales are debited to this account and net profit/loss from Costing Profit & Loss

Account is transferred to this account. The balance in this account at the end of the particular period represents the net total of all the balances of the impersonal account

(2) ***Stores Ledger Control Account* –** This account is **debited for the purchase of material and credited for issue of materials from stores**. The balance in this account indicates the total balance of all the individual stores accounts. Abnormal losses or gains if any in this account, are transferred to Costing Profit & Loss Account. Entries are made on the basis of goods received notes and stores requisitions etc.

(3) ***Wages Control Account* -** This account is **debited with total wages paid (direct and indirect)**. Direct wages are further transferred to Work-in-Process Control Account and indirect wages to Production Overhead; Administration Overhead or Selling & Distribution Overhead Control Accounts, as the case may be. Wages paid for abnormal idle time are transferred to Costing Profit & Loss Account either directly or through Abnormal Loss Account.

(4) ***Manufacturing/Production/Works/ Factory Overhead Control Account* -** This account is **debited with indirect costs of production** such as indirect material, indirect employee, indirect expenses (carriage inward etc.). **Overhead recovered is credited to this Account**. The difference between overhead incurred and overhead recovered (i.e. Under Absorption or Over Absorption of Overheads) is transferred to Overheads Adjustment Account.

(5) ***Work-in-Process Control Account* -** This account is **debited with the total cost of production**, which includes—direct materials, direct employee, direct expenses, production overhead recovered, and is credited with the amount of finished goods completed and transferred. The balance in this account represents total balances of jobs/works-in-process, as shown by several job accounts.

(6) ***Administrative Overhead Control Account* -** This account is **debited with overhead incurred and credited with overhead recovered.** The overhead recovered are debited to Finished Goods Control Account, if administrative overhead is related with production activities otherwise to Cost of Sales A/c. The difference between administrative overheads incurred and recovered is transferred to Overhead Adjustment Account.

(7) ***Finished Goods Control Accounts* -** This account is **debited with the value of goods transferred from Work-in-process Control Account**,

administration costs recovered **(if relates to production activities).** This account is credited with Cost of Sales Account. The balance of this account represents the value of goods unsold at the end of the period..

(8) ***Selling and Distribution Overhead Control Account* -** This account is debited with selling and distribution overheads incurred and credited with the selling and distribution overheads recovered. The difference between overheads incurred and recovered is transferred usually to Overhead Adjustment Account.

(9) ***Cost of Sales Account* -** This account is **debited with the cost of finished goods transferred from Finished Goods Control Account for sale,** General Administrative overhead recovered, Selling and distribution overhead recovered. The balance of this account is ultimately transferred to Sales Account or Costing Profit & Loss Account.

(10) ***Costing Profit & Loss Account* –** This account is debited with cost of goods sold, under-absorbed overheads and abnormal losses and is credited with sales value, over-absorbed overhead and abnormal gains. The net profit or loss in this account is transferred to Cost Ledger Control Account.

(11) ***Overhead Adjustment Account* -** This account is to be **debited for under-recovery of overhead and credited with over-recovery of overhead amount**. The net balance in this account is transferred to Costing Profit & Loss Account.

Note: Sometimes, Overhead Adjustment Account is dispensed with and under/over absorbed overheads is directly transferred to Costing Profit & Loss Account from the respective overhead accounts.

7.2.2 Scheme of Entries

The manner in which the Cost Ledger, when maintained on a double entry basis, would operate is illustrated by the following statements of various journal entries as would appear in the cost books.

Material:

				(₹)	(₹)
(a)	Purchase—₹ 5,000 (credit or cash)				
	(i)	Material Control A/c	Dr.	5,000	
		To Cost Ledger Control A/c			5,000
	(ii)	Stores Ledger Control A/c	Dr.	5,000	
		To Material Control A/c			5,000

Note: Sometimes Material Control Account is dispensed with and entries are directly made into Stores Ledger Control A/c, giving a credit to Cost Ledger Control A/c.

(b)	Purchases worth ₹ 500 for special job			
	Work-in-Process Ledger Control A/c.....................	Dr.	500	
	To Cost Ledger Control A/c			500
(c)	Material returned to vendor—*₹ 500*			
	Cost Ledger Control A/c	Dr.	500	
	To Store Ledger Control A/c			500
(d) (i)	Material (Direct) issued to production—*₹ 1,000*			
	Work-in-Process Control A/c........................	Dr.	1,000	
	To Store Ledger Control A/c			1,000
(ii)	Material (Indirect) issued to production—*₹ 200*			
	Production Overhead Control A/c.....................	Dr.	200	
	To Store Ledger Control A/c			200
(e) (i)	Material worth ₹ 200 returned from shop to stores			
	Stores Ledger Control A/c.....................	Dr.	200	
	To Work-in-Process Control A/c			200
(ii)	Material worth ₹ 100 is transferred from Job-1 to Job- 2			
	Job- 2 A/c...	Dr.	100	
	To Job- 1 A/c			100
(f)	Material worth ₹ 100 is issued from stores for re-pairs			
	Production Overhead Control A/c..........................	Dr.	100	
	To Stores Ledger Control A/c			100

Labour:

(g)	Direct wages paid to workers— ₹ 1,000			
	Wages Control A/c...	Dr.	1,000	
	To Cost Ledger Control A/c			1,000

(h) Indirect wages paid to workers in the production— ₹ 700

(i)	Wages Control A/c...	Dr.	700	
	To Cost Ledger Control A/c			700
(ii)	Production Overhead Control A/c.......................	Dr.	700	
	To Wages Control A/c			700

(i) Indirect wages paid to workers in administration— ₹ 500

(i)	Wages Control A/c...	Dr.	500	
	To Cost Ledger Control A/c			500
(ii)	Administration Overhead A/c.............................	Dr.	500	
	To Wages Control A/c			500

(j) Indirect wages paid to workers in Selling & Dist. department— ₹ 300

(i)	Wages Control A/c...	Dr.	300	
	To Cost Ledger Control A/c			300
(ii)	Selling & Dist. Overhead A/c.............................	Dr.	300	
	To Wages Control A/c			300

Direct Expenses:

(k) Direct expenses incurred ₹ 500 for Job No. 12

Job No. 12 A/c (WIP Control A/c)...........................	Dr.	500	
To Cost Ledger Control A/c			500

Overheads:

(l) Overhead expenses incurred ₹ 500 (Production ₹150; Administrative ₹150; Selling and Distribution ₹200)

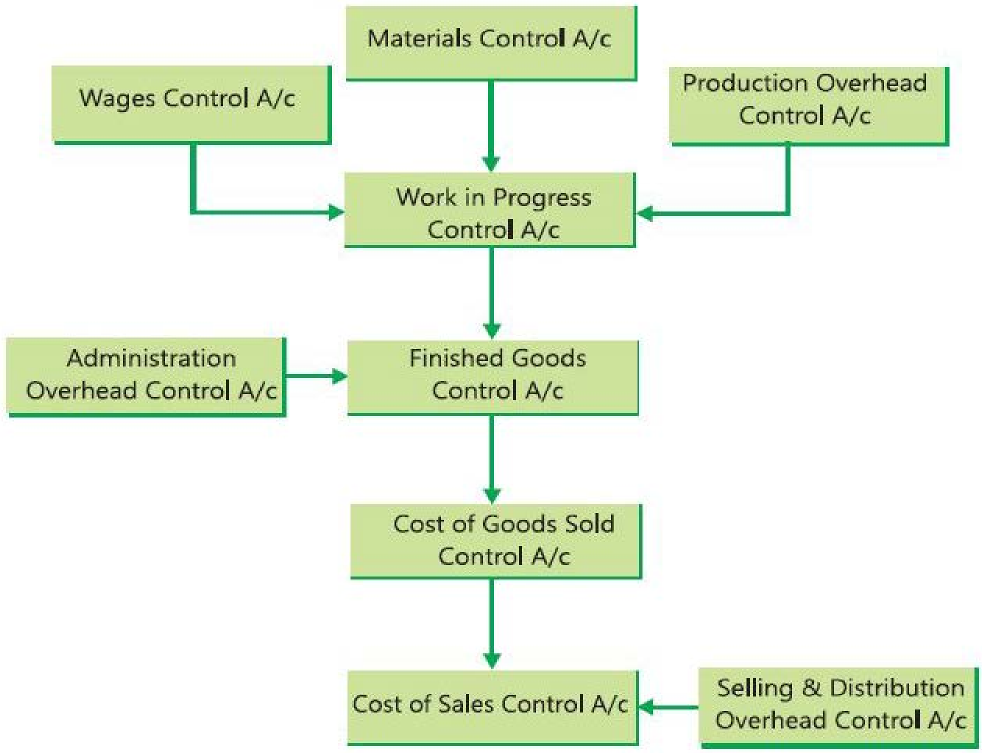
Production Overhead Control A/c............................	Dr.	150	
Administrative Overhead Control A/c.......................	Dr	150	
Selling & Dist. Overhead Control A/c.......................	Dr	200	
To Cost Ledger Control A/c			500

(m) Carriage Inward (Direct to Factory) —₹ 100

Production Overhead Control A/c............................	Dr.	100	

	To Cost Ledger Control A/c			100
(n)	Production overhead recovered—₹ 1,000			
	Work-in-Process Ledger Control A/c......................	Dr.	1,000	
	To Production Overhead Control A/c			1,000
(o)	Administrative Overhead recovered ₹ 500 from finished goods			
	Finished Goods Ledger Control A/c........................	Dr.	500	
	To Administrative Overhead Control A/c			500
(p)	Selling and Distribution Overhead ₹ 100 recovered from sales			
	Cost of Sales A/c...	Dr.	100	
	To Selling & Dist. Overhead Control A/c			100
(q)	Under recovery of overheads			
	Costing Profit & Loss A/c.....................................	Dr.	xxx	
	To Administrative Overhead Control A/c			xxx
(r)	Over recovery of overheads			
	Production Overheads Control A/c........................	Dr.	xxx	
	To Costing Profit & Loss A/c			xxx
Sales:				
(s)	Cost Ledger Control A/c.......................................	Dr.	xxx	
	To Costing Profit & Loss A/c			xxx
Profit/ Loss:				
(t)	In case of Profit			
	(i) Costing Profit & Loss A/c................................	Dr.	xxx	
	To Cost Ledger Control A/c			xxx
(u)	In case of Loss			
	(ii) Cost Ledger Control A/c................................	Dr.	xxx	
	To Costing Profit & Loss A/c			xxx

Non-Integrated Accounting System-flowchart



Administrative overhead is assumed to be related with production

ILLUSTRATION 1

As on 31st March, 20X8, the following balances existed in a firm's Cost Ledger:

	Dr.	Cr.
	(₹)	(₹)
Stores Ledger Control A/c	*3,01,435*	
Work-in-Process Control A/c	*1,22,365*	
Finished Stock Ledger Control A/c	*2,51,945*	
Manufacturing Overhead Control A/c		*10,525*
Cost Ledger Control A/c		*6,65,220*
	6,75,745	*6,75,745*

During the next three months the following items arose:

	(₹)
Finished product (at cost)	*2,10,835*
Manufacturing overhead incurred	*91,510*
Raw materials purchased	*1,23,000*
Factory Wages	*50,530*
Indirect Labour	*21,665*
Cost of Sales	*1,85,890*
Material issued to production	*1,27,315*
Sales returned at Cost	*5,380*
Material returned to suppliers	*2,900*
Manufacturing overhead charged to production	*77,200*

You are required to PASS the Journal Entries; write up the accounts and schedule the balances, stating what each balance represents.

SOLUTION

Journal entries are as follows:

			Dr. (₹)	Cr. (₹)
1.	Finished stock ledger Control A/c	Dr.	2,10,835	
	To Work-in-Process Control A/c			2,10,835
2.	Manufacturing Overhead Control A/c	Dr.	91,510	
	To Cost Ledger Control A/c			91,510
3.	Stores Ledger Control A/c	Dr.	1,23,000	
	To Cost Ledger Control A/c			1,23,000
4.	(i) Wage Control A/c	Dr.	72,195	
	To Cost Ledger Control A/c			72,195
	(ii) Work-in-Process Control A/c	Dr.	50,530	
	To Wages Control A/c			50,530
	(iii) Manufacturing Overhead Control A/c	Dr.	21,665	
	To Wages Control A/c			21,665

5.	Cost of Sales A/c	Dr.	1,85,890	
	To Finished Stock Ledger A/c			1,85,890
6.	Work-in-Process Control A/c	Dr.	1,27,315	
	To Stores Ledger Control A/c			1,27,315
7.	Finished Stock Ledger Control A/c	Dr.	5,380	
	To Cost of Sales A/c			5,380
8.	Cost Ledger Control A/c	Dr.	2,900	
	To Stores Ledger Control A/c			2,900
9.	Work-in-Process Control A/c	Dr.	77,200	
	To Manufacturing Overhead Control A/c			77,200

COST LEDGERS

Cost Ledger Control Account

		(₹)			(₹)
To	Stores Ledger Control A/c (return)	2,900	By	Balance b/d	6,65,220
"	Balance c/d	9,49,025	"	Manufacturing OH Control A/c	91,510
			"	Stores Ledger Control A/c	1,23,000
			"	Wages Control A/c	72,195
		9,51,925			9,51,925

Stores Ledger Control Account

		(₹)			(₹)
To	Balance b/d	3,01,435	By	Work in Process Control A/c	1,27,315
"	Cost Ledger Control A/c	1,23,000	"	Cost Ledger Control A/c	2,900
			"	Balance c/d	2,94,220
		4,24,435			4,24,435

Work-in-Process Control Account

		(₹)			(₹)
To	Balance b/d	1,22,365	By	Finished Stock Ledger Control A/c	2,10,835
"	Wages Control A/c	50,530	"	Balance c/d	1,66,575
"	Stores Ledger Control A/c	1,27,315			
"	Manufacturing OH Control A/c	77,200			
		3,77,410			3,77,410

Finished Stock Ledger Control Account

		(₹)			(₹)
To	Balance b/d	2,51,945	By	Cost of Sales Control A/c	1,85,890
"	Work in Process Control A/c	2,10,835	"	Balance c/d	2,82,270
"	Cost of Sales Control A/c (Return at cost)	5,380			
		4,68,160			4,68,160

Manufacturing Overhead Control Account

		(₹)			(₹)
To	Cost Ledger Control A/c	91,510	By	Balance b/d	10,525
"	Wages Control A/c	21,665	"	Work in Process Control A/c	77,200
			"	Balance c/d	25,450
		1,13,175			1,13,175

Wages Control Account

		(₹)			(₹)
To	Cost Ledger Control A/c	72,195	By	Work in Process Control A/c	50,530
			"	Manufacturing OH Control A/c	21,665
		72,195			72,195

Cost of Sales Account

	(₹)		(₹)
To Finished Stock Ledger Control	1,85,890	By Finished Stock Ledger Control (Return)	5,380
		" Balance c/d	1,80,510
	1,85,890		1,85,890

Trial Balance

	Dr. (₹)	Cr. (₹)
Stores Ledger Control A/c	2,94,220	
Work-in-Process Control A/c	1,66,575	
Finished Stock Ledger Control A/c	2,82,270	
Manufacturing Overhead Control A/c	25,450	
Cost of Sales A/c	1,80,510	
Cost Ledger Control A/c		9,49,025
	9,49,025	**9,49,025**

ILLUSTRATION 2

From the following details PREPARE the necessary accounts in the Cost Ledger

	Materials (₹)	*Work-in-Process (₹)*	*Finished Stock (₹)*
Opening balance	*8,000*	*5,000*	*10,000*
Closing balance	*11,000*	*9,000*	*12,000*

Transactions during the period:	*(₹)*
Materials purchased	*25,000*
Wages paid (including ₹ 2,000 indirect)	*10,000*
Overheads incurred	*8,000*
Overheads absorbed	*9,000*
Sales	*50,000*

SOLUTION

Cost Ledgers
Cost Ledger Control Account

	(₹)		(₹)
To Cost of Sales A/c	50,000	By Balance b/d (8,000 + 5,000 + 10,000)	23,000
		" Stores Ledger Control A/c	25,000
		" Wages Control A/c	10,000
		" Overheads Control A/c	8,000
" Balance c/d (11,000 + 9,000 + 12,000)	32,000	" Costing P&L A/c (profit)	16,000
	82,000		82,000

Stores Ledger Control Account

	(₹)		(₹)
To Balance b/d	8,000	By Work-in-process A/c (balancing figure)	22,000
" Cost Ledger Control A/c	25,000	" Balance c/d	11,000
	33,000		33,000

Work-in-process Control A/c

	(₹)		(₹)
To Balance b/d	5,000	By Finished stock (balancing figure)	35,000
" Store Ledger Control A/c	22,000	" Balance c/d	9,000
" Wages Control A/c	8,000		
" Overheads Control A/c	9,000		
	44,000		44,000

Finished Stock Account

		(₹)			(₹)
To	Balance b/d	10,000	By	Cost of Sales A/c (balancing figure)	33,000
"	Work-in-Process Control A/c	35,000	"	Balance c/d	12,000
		45,000			45,000

Wages Control Account

		(₹)			(₹)
To	Cost Ledger Control A/c	10,000	By	Work-in-process Control A/c	8,000
			"	Overheads A/c	2,000
		10,000			10,000

Overheads Control Account

		(₹)			(₹)
To	Cost Ledger Control A/c	8,000	By	Work-in-process Control A/c	9,000
"	Wages Control A/c	2,000	"	Costing P&L A/c*	1,000
		10,000			10,000

* [(Overhead incurred + Indirect wages) – Overheads absorbed]
[(₹ 8,000 + ₹ 2,000) - ₹ 9,000] = ₹ 1,000 (under-absorption)

Cost of Sales Account

		(₹)			(₹)
To	Finished Stock A/c	33,000	By	Costing P&L A/c	33,000
		33,000			33,000

Costing P & L Account

		(₹)			(₹)
To	Cost of Sales A/c	33,000	By	Cost Ledger Control A/c (Sales A/c)	50,000
"	Overheads Control (under-absorbed)	1,000			

" Cost Ledger Control A/c (Profit) (balancing figure)	16,000		
	50,000		50,000

ILLUSTRATION 3

On 31st March, 20X8 the following balances were extracted from the books of the Supreme Manufacturing Company:

	Dr. (₹)	Cr. (₹)
Stores Ledger Control A/c	*35,000*	
Work-in-Process Control A/c	*38,000*	
Finished Goods Control A/c	*25,000*	
Cost Ledger Control A/c		*98,000*
	98,000	*98,000*

The following transactions took place in April 20X8:

	Dr. (₹)
Raw Materials:	
- *Purchased*	*95,000*
- *Returned to suppliers*	*3,000*
- *Issued to production*	*98,000*
- *Returned to stores*	*3,000*
Productive wages	*40,000*
Indirect wages	*25,000*
Factory overhead expenses incurred	*50,000*
Selling and Administrative expenses	*40,000*
Cost of finished goods transferred to warehouse	*2,13,000*
Cost of Goods sold	*2,10,000*
Sales	*3,00,000*

Factory overheads are applied to production at 150% of direct wages, any under/over absorbed overhead being carried forward for adjustment in the subsequent months. All administrative and selling expenses are treated as period costs and charged off to the Profit and Loss Account of the month in which they are *incurred.*

PREPARE the following Accounts:

(a) Cost Ledger Control A/c

(b) Stores Ledger Control A/c

(c) Work-in-Process Control A/c

(d) Finished Goods Stock Control A/c

(e) Factory Overhead Control A/c

(f) Costing Profit and Loss A/c

(g) Trial Balance as at 30th April, 20X3.

SOLUTION

(a) Cost Ledger Control A/c

		(₹)			(₹)
To	Costing P&L A/c (sales)	3,00,000	By	Balance b/d	98,000
"	Stores Ledger Control A/c	3,000	"	Stores Ledger Control A/c	95,000
			"	Wages Control A/c (Productive + Indirect wages)	65,000
			"	Factory OH Control A/c	50,000
			"	Selling & Admn. OH A/c	40,000
"	Balance c/d	95,000	"	Costing P&L A/c (profit)	50,000
		3,98,000			3,98,000

(b) Stores Ledger Control A/c

		(₹)			(₹)
To	Balance b/d	35,000	By	Cost Ledger Control A/c	3,000
"	Cost Ledger Control A/c	95,000	"	Work-in-process Control A/c	98,000
"	Work-in-process Control A/c	3,000	"	Balance c/d	32,000
		1,33,000			1,33,000

(c) Work-in-Process Control A/c

	(₹)		(₹)
To Balance b/d	38,000	By Stores Ledger Control A/c	3,000
" Store Ledger Control A/c	98,000	" Finished Goods Control A/c	2,13,000
" Wages Control A/c	40,000		
" Factory OH Control A/c	60,000	" Balance c/d	20,000
	2,36,000		2,36,000

(d) Finished Goods Control A/c

	(₹)		(₹)
To Balance b/d	25,000	By Cost of goods sold A/c	2,10,000
" Work-in-process Control A/c	2,13,000	" Balance c/d	28,000
	2,38,000		2,38,000

(e) Factory Overhead Control A/c

	(₹)		(₹)
To Wages Control A/c (Indirect wages)	25,000	By Work-in-process A/c (150% of ₹40,000)	60,000
" Cost Ledger Control A/c	50,000	" Balance c/d	15,000
	75,000		75,000

(f) Costing Profit and Loss A/c

	(₹)		(₹)
To Cost of Goods Sold A/c	2,10,000	By Cost Ledger Control A/c (Sales)	3,00,000
" Selling and Admn. OH Control A/c	40,000		
" Cost Ledger Control A/c (Profit) (balancing figure)	50,000		
	3,00,000		3,00,000

(g) Trial Balance (as at 30th April, 20X8)

	Dr. (₹)	Cr. (₹)
Stores Ledger Control A/c	32,000	
Work-in-Process Control A/c	20,000	
Finished Goods Control A/c	28,000	
Factory Overhead Control A/c	15,000	
Cost Ledger Control A/c		95,000
	95,000	**95,000**

Working Notes:

(1) Wages Control A/c

	(₹)		(₹)
To Cost Ledger Control A/c	65,000	By Work-in-process Control A/c	40,000
		" Factory OH Control A/c	25,000
	65,000		65,000

(2) Cost of Goods Sold A/c

	(₹)		(₹)
To Finished Goods Control A/c	2,10,000	By Costing P&L A/c	2,10,000
	2,10,000		2,10,000

(3) Selling & Administrative Expenses A/c

	(₹)		(₹)
To Cost Ledger Control A/c	40,000	By Costing P&L A/c	40,000
	40,000		40,000

ILLUSTRATION 4

Acme Manufacturing Co. Ltd. opens the costing records, with the balances as on 1st July, 20X8 as follows:

	(₹)	(₹)
Material Control A/c	*1,24,000*	
Work-in-Process Control A/c	*62,500*	
Finished Goods Control A/c	*1,24,000*	
Production Overhead Control A/c	*8,400*	
Administrative Overhead Control A/c		*12,000*
Selling & Distribution Overhead Control A/c	*6,250*	
Cost Ledger Control A/c		*3,13,150*
	3,25,150	***3,25,150***

The following are the transactions for the quarter ended 30th September 20X8:

	(₹)
Materials purchased	*4,80,100*
Materials issued to jobs	*4,77,400*
Materials to works maintenance	*41,200*
Materials to administration office	*3,400*
Materials to selling department	*7,200*
Wages direct	*1,49,300*
Wages indirect	*65,000*
Transportation for indirect materials	*8,400*
Production overheads	*2,42,250*
Absorbed production overheads	*3,59,100*
Administration overheads	*74,000*
Administration allocation to production	*52,900*
Administration allocation to sales	*14,800*
Sales overheads	*64,200*
Sales overheads absorbed	*82,000*
Finished goods produced	*9,58,400*
Finished goods sold	*9,77,300*
Sales	*14,43,000*

Make up the various accounts as you envisage in the Cost Ledger and PREPARE a Trial Balance as at 30th September, 20X8.

SOLUTION

Cost Ledgers

Material Control A/c*

		(₹)			(₹)
To	Balance b/d	1,24,000	By	Work-in-process Control A/c	4,77,400
"	Cost Ledger Control A/c (purchase)	4,80,100	"	Production OH Control A/c	41,200
			"	Admn. OH Control A/c	3,400
			"	S&D OH Control A/c	7,200
			"	Balance c/d	74,900
		6,04,100			6,04,100

*Material Control A/c may also be written as Stores Ledger Control A/c

Wages Control A/c

		(₹)			(₹)
To	Cost Ledger Control A/c	2,14,300	By	Work-in-process Control A/c	1,49,300
			"	Production OH Control A/c	65,000
		2,14,300			2,14,300

Work-in-Process Control A/c

		(₹)			(₹)
To	Balance b/d	62,500	By	Finished goods Control A/c	9,58,400
"	Material Control A/c	4,77,400			
"	Wages Control A/c	1,49,300			
"	Production OH Control A/c	3,59,100			
"			"	Balance c/d	89,900
		10,48,300			10,48,300

Production Overhead Control A/c

	(₹)		(₹)
To Balance b/d	8,400	By Work-in-process Control A/c	3,59,100
" Cost Ledger Control A/c:			
- Transportation	8,400		
- Production OH	2,42,250		
" Wages Control A/c	65,000		
" Material Control A/c	41,200	" Balance c/d	6,150
	3,65,250		3,65,250

Administration Overhead Control A/c

	(₹)		(₹)
To Cost Ledger Control A/c	74,000	By Balance b/d	12,000
" Material Control A/c:	3,400	" Finished Goods Control A/c	52,900
" Balance c/d	2,300	" Cost of sales A/c	14,800
	79,700		79,700

Selling and Distribution Overhead Control A/c

	(₹)		(₹)
To Balance b/d	6,250	By Cost of Sales A/c	82,000
" Cost Ledger Control A/c:	64,200		
" Material Control A/c	7,200		
" Balance c/d	4,350		
	82,000		82,000

Finished Goods Control A/c

	(₹)		(₹)
To Balance b/d	1,24,000	By Cost of Sales A/c	9,77,300
" ADMINISTRATION OVERHEAD CONTROL A/C	52,900		

"	Work-in-process Control A/c	9,58,400	"	Balance c/d	1,58,000
		11,35,300			11.35.300

Cost of Sales A/c

		(₹)			(₹)
To	Finished Goods Control A/c	9,77,300	By	Costing P&L A/c	10,74,100
"	Admn. OH Control A/c	14,800			
"	S&D OH Control A/c	82,000			
		10,74,100			10,74,100

Cost Ledger Control A/c

		(₹)			(₹)
To	Costing P&L A/c (Sales)	14,43,000	By	Balance b/d	3,13,150
			"	Material Control A/c	4,80,100
			"	Wages Control A/c	2,14,300
			"	Production OH Control A/c	2,50,650
			"	Administrative OH A/c	74,000
			"	S&D OH Control A/c	64,200
"	Balance c/d	3,22,300	"	Costing P&L A/c	3,68,900
		17,65,300			17,65,300

Costing Profit & Loss A/c

		(₹)			(₹)
To	Cost of sales A/c	10,74,100	By	Cost Ledger Control A/c (sales)	14,43,000
"	Cost Ledger Control A/c (profit) (balancing figure)	3,68,900			
		14,43,000			14,43,000

Trial Balance as at 30th September, 20X8

	Dr. (₹)	Cr. (₹)
Material Control A/c	74,900	
Production OH Control A/c	6,150	
Administrative OH Control A/c		2,300
Selling & Distribution OH Control A/c		4,350
Work-in-process Control A/c	89,900	
Finished Goods Control A/c	1,58,000	
Cost Ledger Control A/c		3,22,300
	3,28,950	**3,28,950**

ILLUSTRATION 5

(a) A fire destroyed some accounting records of a company. You have been able to collect the following from the spoilt papers/records and as a result of consultation with accounting staff in respect of January, 20X8:

(i) Incomplete Ledger Entries:

Materials Control A/c

	(₹)		(₹)
To Balance b/d	*32,000*		

Work-in-Process Control A/c

	(₹)		(₹)
To Balance b/d	*9,200*	*By Finished Goods Control A/c*	*1,51,000*

Payables (Creditors) A/c

	(₹)		(₹)
		By Balance b/d	*16,400*
To Balance c/d	*19,200*		

Manufacturing Overheads Control A/c

	(₹)		(₹)
To Cost Ledger Control A/c (Amount spent)	*29,600*		

Finished Goods Control A/c

	(₹)		(₹)
To Balance b/d	24,000	By Balance c/d	30,000

(ii) Additional Information:

(1) The cash-book showed that ₹ 89,200 have been paid to creditors for raw-material.

(2) Ending inventory of work-in-process included material ₹ 5,000 on which 300 direct labour hours have been booked against wages and overheads.

(3) The job card showed that workers have worked for 7,000 hours. The wage rate is ₹ 10 per labour hour.

(4) Overhead recovery rate was ₹ 4 per direct labour hour.

You are required to COMPLETE the above accounts in the cost ledger of the company:

SOLUTION

Materials Control A/c

	(₹)		(₹)
To Balance b/d	32,000	By Work-in-process control A/c	53,000
Cost Ledger Control A/c	92,000		
(Purchases) (refer working note)		By Balance c/d	71,000
	1,24,000		1,24,000

Work-in-Process Control A/c

	(₹)			(₹)
To Balance b/d	9,200	By Finished Goods Control A/c		1,51,000
To Materials Control A/c (Bal. fig.)	53,000	By Balance c/d:		
To Wages Control A/c (₹10 × 7,000 hours)	70,000	Material	5,000	
		Wages (₹10 × 300 hours)	3,000	
To Overheads Control A/c (₹4 × 7,000 hours)	28,000	Overheads (₹4 × 300 hours)	1,200	9,200
	1,60,200			1,60,200

Finished Goods Control A/c

	(₹)		(₹)
To Balance b/d	24,000	By Cost of sales A/c (Bal. fig.)	1,45,000
To Work-in-process Control A/c (as above)	1,51,000	By Balance c/d	30,000
	1,75,000		1,75,000

Manufacturing Overheads A/c

	(₹)		(₹)
To Cost Ledger Control A/c	29,600	By Work-in-process control A/c (₹4 × 7,000 hours)	28,000
		By Costing P/L A/c (Under-absorbed OH)	1,600
	29,600		29,600

Working Note:

Payables (Creditors) A/c

	(₹)		(₹)
To Cash or Bank	89,200	By Balance b/d	16,400

To	Balance c/d	19,200	By	Purchases (Balancing fig.)	92,000
		1,08,400			1,08,400

7.3 INTEGRATED (OR INTEGRAL) ACCOUNTING SYSTEM

Integrated Accounts is the name given to a system of accounting, whereby **cost and financial accounts are kept in the same set of books.** Obviously, then there will be no separate sets of books for Costing and Financial records. Integrated accounts provide or meet out fully the information requirement for Costing as well as for Financial Accounts. For Costing it provides information useful for ascertaining the cost of each product, job, process, operation of any other identifiable activity and for carrying necessary analysis. **Integrated accounts provide relevant information which is necessary for preparing profit and loss account and the balance sheets** as per the requirement of law and also helps in exercising effective control over the liabilities and assets of its business.

7.3.1 Advantages

The main advantages of Integrated Accounts are as follows:

(a) ***No need for Reconciliation***- The question of reconciling costing profit and financial profit does not arise, as there is only one figure of profit.

(b) ***Less efforts***- Due to use of one set of books, there is a significant saving in efforts made.

(c) ***Less time consuming***- No delay is caused in obtaining information as it is provided from books of original entry.

(d) ***Economical process***- It is economical also as it is based on the concept of "Centralisation of Accounting function".

7.3.2 Essential pre-requisites for Integrated Accounts

The essential pre-requisites for integrated accounts include the following steps:

1. The management's decision about the extent of integration of the two sets of books. Some concerns find it useful to integrate up to the stage of prime

cost or factory cost while other prefer full integration of the entire accounting records.

2. A suitable coding system must be made available so as to serve the accounting purposes of financial and cost accounts.

3. An agreed routine, with regard to the treatment of provision for accruals, prepaid expenses, other adjustment necessary for preparation of interim accounts.

4. Perfect coordination should exist between the staff responsible for the financial and cost aspects of the accounts and an efficient processing of accounting documents should be ensured.

Under this system there is no need for a separate cost ledger. Of course, there will be a number of subsidiary ledgers; in addition to the useful Customers' Ledger and the Bought Ledger, there will be: (a) Stores Ledger; (b) Stock Ledger and (c) Job Ledger.

7.3.3 Features of Integrated Accounting System: Following are the main points of integrated accounting:

(a) Complete analysis of cost and sales are kept.

(b) Complete details of all payments in cash are kept

(c) Complete details of all assets and liabilities are kept and this system does not use a notional account to represent all impersonal accounts

In non-integrated system, a cost ledger control account or general ledger adjustment account is used in cost ledger. In this system, **general ledger adjustment account is eliminated** and detailed accounts for assets and liabilities are maintained. In other words, following accounts are used for "General Ledger Adjustment Account/ Cost Ledger Control Account" of non-integrated system:

(a) Bank account

(b) Receivables (Debtors) account

(c) Payables (Creditors) account

(d) Provision for depreciation account etc.

In integrated system, all accounts necessary for showing classification of cost will be used but **the cost ledger control account of non-integrated accounting is replaced by use of following accounts**:

(a) Bank account

(b) Receivables (Debtors) account

(c) Payables (Creditors) account

(d) Provision for depreciation account

(e) Fixed assets account

(f) Share capital account

If the illustration given below is to be worked out on integrated account basis, the journal entries would be as follows:

ILLUSTRATION 6

JOURNALISE the following transactions assuming that cost and financial transactions are integrated:

	(₹)
Raw materials purchased	*2,00,000*
Direct materials issued to production	*1,50,000*
Wages paid (30% indirect)	*1,20,000*
Wages charged to production	*84,000*
Manufacturing expenses incurred	*84,000*
Manufacturing overhead charged to production	*92,000*
Selling and distribution costs	*20,000*
Finished products (at cost)	*2,00,000*
Sales	*2,90,000*
Closing stock	*Nil*
Receipts from debtors	*69,000*
Payments to creditors	*1,10,000*

SOLUTION

Journal entries are as follows:

	DR. (₹)	CR. (₹)
Stores Ledger Control A/c.................................. Dr. To Payables (Creditors) A/c (Materials purchased)	2,00,000	 2,00,000

Work-in-Process Control A/c................................ To Stores Ledger Control A/c (Materials issued to production)	Dr.	1,50,000	 1,50,000
Wages Control A/c... To Bank A/c (Wages paid)	Dr.	1,20,000	 1,20,000
Factory Overhead Control A/c.............................. To Wages Control A/c (30% of wages paid being indirect charged to overhead)	Dr.	36,000	 36,000
Work-in-Process Control A/c................................ To Wages Control A/c (Direct wages charged to production)	Dr.	84,000	 84,000
Factory Overhead Control A/c............................. To Bank A/c (Manufacturing overhead incurred)	Dr.	84,000	 84,000
Work-in-Process Control A/c................................ To Factory Overhead Control A/c (Manufacturing overhead charged to production)	Dr.	92,000	 92,000
Selling and Distribution Overhead Control A/c.......... To Bank A/c (Selling and distribution costs incurred)	Dr.	20,000	 20,000
Finished Goods Control A/c................................. To Work-in-Process Control A/c (Cost of finished goods)	Dr.	2,00,000	 2,00,000
Cost of Sales A/c.. To Finished Goods Control A/c To Selling and Distribution Control A/c (Costs of goods sold)	Dr.	2,20,000	 2,00,000 20,000
Receivables (Debtors) A/c.................................. To Sales A/c (Finished stock sold)	Dr.	2,90,000	 2,90,000
Bank A/c... To Receivables (Debtors) A/c	Dr.	69,000	 69,000

(Receipts from receivables)			
Payables (Creditors) A/c......................................	Dr.	1,10,000	
To Bank A/c			1,10,000
(Payment made to payables)			

ILLUSTRATION 7

Bangalore Petrochemicals Co. keeps books on integrated accounting system. The following balances appear in the books as on 1st January, 20X8.

	DR. (₹)	CR. (₹)
Stores Ledger control A/c	*18,000*	
Work-in-Process Control A/c	*17,000*	
Finished Goods Control A/c	*13,000*	
Bank A/c	*10,000*	
Creditors A/c		*8,000*
Fixed assets A/c	*55,000*	
Debtors A/c	*12,000*	
Share capital A/c		*80,000*
Provision for depreciation A/c		*5,000*
Profit and loss A/c		*32,000*
	1,25,000	***1,25,000***

Transaction for the year ended 31st Dec., 20X8 were as given below:

	(₹)	(₹)
Wages-direct	*87,000*	
Wages-indirect	*5,000*	*92,000*
Purchase of materials (on credit)		*1,00,000*
Materials issued to production		*1,10,000*
Materials for repairs		*2,000*
Goods finished during the year (at cost)		*2,15,000*
Sales (credit)		*3,00,000*
Cost of goods sold		*2,20,000*
Production overhead absorbed		*48,000*

Production overhead incurred		*40,000*
Administration overhead incurred (production)		*12,000*
Selling overhead incurred		*14,000*
Payments of creditors		*1,01,000*
Payments of debtors		*2,90,000*
Depreciation on machinery		*1,300*
Prepaid rent (included in factory overheads)		*300*

PREPARE accounts in the integrated ledger.

SOLUTION

Stores Ledger Control Account

		(₹)			(₹)
To	Balance b/d	18,000	By	Work-in-process Control A/c	1,10,000
To	Payables (Creditors) A/c	1,00,000	By	Production OH Control A/c	2,000
			By	Balance c/d	6,000
		1,18,000			1,18,000

Wages Control Account

		(₹)			(₹)
To	Bank A/c	92,000	By	Work-in-process A/c	87,000
			By	Production OH A/c	5,000
		92,000			92,000

Work-in-Process Control A/c

		(₹)			(₹)
To	Balance b/d	17,000	By	Finished Goods Control A/c	2,15,000
To	Stores Ledger Control A/c	1,10,000	By	Balance c/d	47,000
To	Wages Control A/c	87,000			
To	Production OH A/c	48,000			
		2,62,000			2,62,000

Production Overhead Control A/c

	(₹)		(₹)
To Wages Control A/c	5,000	By Work-in-process Control A/c	48,000
To Stores Ledger Control A/c	2,000	By Prepaid Rent A/c	300
To Bank A/c	40,000		
To Prov. for Depreciation	1,300		
	48,300		48,300

Finished Goods Control A/c

	(₹)		(₹)
To Balance b/d	13,000	By Cost of Sales A/c (Cost of goods sold)	2,20,000
To Work-in-process Control A/c	2,15,000	By Balance c/d	20,000
To Administrative OH Control A/c	12,000		
	2,40,000		2,40,000

Administration Overheads Control A/c

	(₹)		(₹)
To Bank A/c	12,000	By Finished Goods Control A/c	12,000
	12,000		12,000

Cost of Sales A/c

	(₹)		(₹)
To Finished Goods Control A/c	2,20,000	By Sales A/c	2,34,000
To Selling & Dist. OH A/c	14,000		
	2,34,000		2,34,000

Selling and Distribution Overheads A/c

	(₹)		(₹)
To Bank A/c	14,000	By Cost of Sales A/c	14,000
	14,000		14,000

Sales A/c

	(₹)		(₹)
To Cost of Sales A/c	2,34,000	By Receivables A/c	3,00,000
To Costing P&L A/c	66,000		
	3,00,000		3,00,000

Prepaid Rent A/c

	(₹)		(₹)
To Production OH Control A/c	300	By Balance c/d	300
	300		300

Provision for Depreciation A/c

	(₹)		(₹)
To Balance c/d	6,300	By Balance b/d	5,000
		By Production OH Control A/c	1,300
	6,300		6,300

Profit and Loss A/c

	(₹)		(₹)
		By Balance b/d	32,000
To Balance c/d	98,000	By Sales A/c	66,000
	98,000		98,000

Receivables (Debtors) A/c

	(₹)		(₹)
To Balance b/d	12,000	By Bank A/c	2,90,000
To Sales	3,00,000	By Balance c/d	22,000
	3,12,000		3,12,000

Payables (Creditors) A/c

	(₹)		(₹)
To Bank A/c	1,01,000	By Balance b/d	8,000
To Balance c/d	7,000	By Stores Ledger Control A/c	1,00,000
	1,08,000		1,08,000

Bank A/c

	(₹)		(₹)
To Balance b/d	10,000	By Payables (Creditors) A/c	1,01,000
To Receivables (Debtors) A/c	2,90,000	By Wages Control A/c	92,000
		By Production OH A/c	40,000
		By Administration OH A/c	12,000
		By Selling & Dist. OH A/c	14,000
		By Balance c/d	41,000
	3,00,000		3,00,000

Fixed Assets A/c

	(₹)		(₹)
To Balance b/d	55,000	By Balance c/d	55,000
	55,000		55,000

Share Capital A/c

	(₹)		(₹)
To Balance c/d	80,000	By Balance b/d	80,000
	80,000		80,000

ILLUSTRATION 8

In the absence of the Chief Accountant, you have been asked to prepare a month's cost accounts for a company which operates a batch costing system fully integrated with the financial accounts. The following relevant information is provided to you:

	(₹)	(₹)
Balances at the beginning of the month:		
Stores Ledger Control Account		*25,000*
Work-in-Process Control Account		*20,000*
Finished Goods Control Account		*35,000*
Prepaid Production Overheads brought forward from previous month		*3,000*
Transactions during the month:		
Materials Purchased		*75,000*
Materials Issued:		
To production	*30,000*	
To factory maintenance	*4,000*	34,000
Materials transferred between batches		*5,000*
Total wages paid:		
To direct workers	*25,000*	
To indirect workers	*5,000*	30,000
Direct wages charged to batches		*20,000*
Recorded non-productive time of direct workers		*5,000*
Selling and Distribution Overheads Incurred		*6,000*
Other Production Overheads Incurred		*12,000*
Sales		*1,00,000*
Cost of Finished Goods Sold		*80,000*
Cost of Goods completed and transferred into finished goods during the month		*65,000*
Physical value of work-in-Process at the end of the month		*40,000*

The production overhead absorption rate is 150% of direct wages charged to work-in-Process.

Required:

PREPARE the following accounts for the month:

(a) Stores Ledger Control Account.

(b) Work-in-Process Control Account.

(c) Finished Goods Control Account.

(d) Production Overhead Control Account.

(e) Costing Profit and Loss Account.

SOLUTION

(a) Stores Ledger Control Account

	(₹)		(₹)
To Balance b/d	25,000	By Work in Process Control A/c	30,000
" Creditors/ Bank A/c	75,000	" Production OH Control A/c	4,000
		" Balance c/d	66,000
	1,00,000		1,00,000

(b) Work-in-Process Control Account

	(₹)		(₹)
To Balance b/d	20,000	By Finished Goods Control A/c	65,000
" Store Ledger Control A/c	30,000	" Balance c/d (Physical value)	40,000
" Wages Control A/c	20,000		
" Production OH Control A/c (150% of direct wages)	30,000		
" Costing P&L A/c (Stock Gains)	5,000		
	1,05,000		1,05,000

(c) Finished Goods Control Account

	(₹)		(₹)
To Balance b/d	35,000	By Cost of Goods Sold* A/c	80,000
" Work-in-Process Control A/c	65,000	" Balance c/d	20,000
	1,00,000		1,00,000

* Alternatively, Costing Profit & Loss Account

(d) Production Overhead Control Account

		(₹)			(₹)
To	Balance b/d (Prepaid amount)	3,000	By	Work-in-Process Control A/c (150% of direct wages)	30,000
"	Stores Ledger Control A/c	4,000			
"	Wages Control A/c (₹5,000 + ₹5,000)	10,000			
"	Bank A/c	12,000			
"	Costing P&L A/c* (Over-absorption, balancing figure)	1,000			
		30,000			30,000

* Alternatively the over absorbed overhead may be carried forward.

(e) Costing Profit & Loss Account

		(₹)			(₹)
To	Finished goods control A/c or Cost of Goods Sold A/c	80,000	By	Sales A/c	1,00,000
"	Selling & distribution OH A/c	6,000	"	Production OH Control A/c	1,000
"	Balance c/d	20,000	"	Work-in-Process Control A/c (Stock gain)	5,000
		1,06,000			1,06,000

Notes:

(1) Materials transferred between batches will not affect the Control Accounts.

(2) Non-production time of direct workers is a production overhead and therefore will not be charged to work-in-Process control A/c.

(3) Production overheads absorbed in work-in-Process Control A/c will then equal ₹ 30,000 (150% of ₹ 20,000).

(4) In the work-in-Process Control A/c the excess physical value of stock is taken resulting in stock gain. Stock gain is transferred to Profit & Loss A/c.

7.4 RECONCILIATION OF COST AND FINANCIAL ACCOUNTS

When the cost and financial accounts are kept separately, it is imperative that those should be reconciled, otherwise the cost accounts would not be reliable. In this connection, it is necessary to remember that a reconciliation of the two sets of accounts only can be made if both the sets contain sufficient details as would enable the causes of differences to be located. It is, therefore, important that in the financial accounts, the expenses should be analysed in the same way as in the cost accounts.

In the text book, there appears a General Ledger Adjustment Account as would appear in the Cost Ledger, students should study the entries therein as well as a discussion that follows to explain the manner in which the details of items included therein could be reconciled with the corresponding items appearing in the financial accounts. They would thus realise that **the reconciliation of the balances generally, is possible preparing a *Memorandum Reconciliation Account*.** In this account, the items charged in one set of accounts but not in the other or those charged in excess as compared to that in the other are collected and by adding or subtracting them from the balance of the amount of profit shown by one of the accounts, shown by the other can be reached. **The procedure is similar to the one followed for reconciling the balance with a bank that shown by the cash book or the ledger.**

It is important, however, to know the causes which, generally, give rise to differences in the Cost and Financial Accounts. These are briefly summarised below:

7.4.1 Causes of differences in Financial and Cost Accounts :

1. Items included in Financial Accounts only-

(a) *Purely Financial Expenses:*

(i) Interest on loans or bank mortgages.

(ii) Expenses and discounts on issue of shares, debentures etc.

(iii) Other capital losses i.e., loss by fire not covered by insurance etc.

(iv) Losses on the sales of fixed assets and investments

(v) Goodwill written off

(vi) Preliminary expenses written off

(vii) Income tax, donations, subscriptions

(viii) Expenses of the company's share transfer office, if any.

(b) *Purely Financial Income*

(i) Interest received on bank deposits, loans and investments

(ii) Dividends received

(iii) Profits on the sale of fixed assets and investments

(iv) Transfer fee received.

(v) Rent receivables

2. Item included in Cost Accounts only (notional expenses):

(i) Charges in lieu of rent where premises are owned

(ii) Interest on capital at notional figure though not incurred

(iii) Salary for the proprietor at notional figure though not incurred

(iv) Notional Depreciation on the assets fully depreciated for which book value is nil.

3. **Items whose treatment is different in the two sets of accounts**: The objective of cost accounting is to provide information to management for decision making and control purposes while financial accounting conforms to external reporting requirements. Hence there are chances that certain items are treated differently in the two sets of accounts. For example, LIFO method is not allowed for inventory valuation in India as per the Accounting Standard 2 issued by the Council of the ICAI. However, this method may be adopted for cost accounts as it is more suitable for arriving at costs which shall be used as a base for deciding selling prices. Similarly cost accounting may use a different method of depreciation than what is allowed under financial accounting.

4. **Varying basis of valuation**: It is another factor which sometimes is responsible for the difference. It is well known that in financial accounts

stock are valued either at cost or market price, whichever is lower. But in Cost Accounts, stocks are only valued at cost.

7.4.2 Procedure for reconciliation: There are 3 steps involved in the procedure for reconciliation.

1. Ascertainment of profit as per financial accounts
2. Ascertainment of profit as per cost accounts
3. Reconciliation of both the profits *(similar to the bank reconciliation statement)*

Circumstances where reconciliation statement can be avoided: When the Cost and Financial Accounts are integrated - there is no need to have a separate reconciliation statement between the two sets of accounts. Integration means that the same set of accounts fulfil the requirement of both i.e., Cost and Financial Accounts.

ILLUSTRATION 9

The following figures are available from the financial records of ABC Manufacturing Co. Ltd. for the year ended 31-3-20X8.

	(₹)
Sales (20,000 units)	*25,00,000*
Materials	*10,00,000*
Wages	*5,00,000*
Factory Overheads	*4,50,000*
Office and administrative Overhead (production related)	*2,60,000*
Selling and distribution Overheads	*1,80,000*
Finished goods (1,230 units)	*1,50,000*

	(₹)	(₹)
Work-in-Process:		
Materials	*30,000*	
Labour	*20,000*	
Factory overheads	*20,000*	*70,000*
Goodwill written off		*2,00,000*
Interest on capital		*20,000*

In the Costing records, factory overhead is charged at 100% of wages, administration overhead 10% of factory cost and selling and distribution overhead at the rate of ₹ 10 per unit sold.

PREPARE a statement reconciling the profit as per cost records with the profit as per financial records.

SOLUTION

Profit & Loss Account of ABC Manufacturing Co. Ltd.
(for the year ended 31-3-20X8)

	(₹)		(₹)
To Opening Stock	Nil	By Sales (20,000 units)	25,00,000
To Materials	10,00,000	By Closing Stock:	
To Wages	5,00,000	Finished goods (1,230 units)	1,50,000
To Factory Overheads	4,50,000	Work-in-Process	70,000
To Office & Admn. Overheads	2,60,000		
To Selling & Dist. Overheads	1,80,000		
To Goodwill written off	2,00,000		
To Interest on Capital	20,000		
To **Net Profit**	**1,10,000**		
	27,20,000		**27,20,000**

Cost Sheet

	(₹)
Materials	10,00,000
Wages	5,00,000
Direct Expenses	Nil
Prime Cost	**15,00,000**
Add: Factory overhead @ 100% of wages	5,00,000
Gross Factory Cost	20,00,000
Less: Closing WIP	(70,000)
***Factory Cost** of (20,000 + 1,230) units*	**19,30,000**

Add Office & Admn. Overhead @ 10% of Factory cost	1,93,000
	21,23,000
Less: Closing Stock of finished goods (1,230 units)	(1,23,000)*
Production Cost of 20,000 units	**20,00,000**
Add: Selling & Dist. Overhead @ ₹ 10 per unit	2,00,000
Cost of sales *of 20,000 units*	**22,00,000**
Sales of 20,000 units	25,00,000
Profit	**3,00,000**

* (₹ 21,23,000 x 1,230 units/ 21,230 units)

Reconciliation Statement

	(₹)	(₹)
Profit as per Cost Accounts		**3,00,000**
Add: Factory overheads over-absorbed (₹ 5,00,000 – ₹ 4,50,000)	50,000	
Selling & Dist. Overhead over-absorbed (₹ 2,00,000 – ₹ 1,80,000)	20,000	
Difference in the valuation of closing stock of finished goods (₹ 1,50,000 – ₹ 1,23,000)	27,000	97,000
		3,97,000
Less: Office & Admn. overhead under-absorbed (₹ 2,60,000 – ₹ 1,93,000)	67,000	
Goodwill written off taken in financial accounts	2,00,000	
Interest on capital	20,000	2,87,000
Profit as per financial accounts		**1,10,000**

ILLUSTRATION 10

Following are the figures extracted from the Cost Ledger of a manufacturing unit.

	(₹)
Stores:	
Opening balance	*15,000*
Purchases	*80,000*

Transfer from WIP	*40,000*
Issue to WIP	*80,000*
Issue to repairs and maintenance	*10,000*
Sold as a special case at cost	*5,000*
Shortage in the year	*3,000*
Work-in-Process:	
Opening inventory	*30,000*
Direct labour cost charged	*30,000*
Overhead cost charged	*1,20,000*
Closing Balance	*20,000*
Finished Products:	
Entire output is sold at 10% profit on actual cost from work-in-process.	
Others:	
Wages for the period	*35,000*
Overhead Expenses	*1,25,000*

ASCERTAIN the profit or loss as per financial account and cost accounts and reconcile them.

SOLUTION

Stores Ledger Control A/c

		(₹)			(₹)
To	Balance b/d	15,000	By	Work-in-process Control A/c (Issued to WIP)	80,000
To	Cost Ledger Control A/c (Purchases)	80,000	By	Overhead Control A/c (Issued for repairs)	10,000
To	Work-in-process Control A/c (Return from WIP)	40,000	By	Cost Ledger Control A/c (Sold at cost)	5,000
			By	Overheads Control A/c* (Shortages)	3,000
			By	Balance c/d	37,000
		1,35,000			1,35,000

* Assumed normal

Wages Control A/c

	(₹)		(₹)
To Cost Ledger Control A/c	35,000	By Work-in-process Control A/c	30,000
		By Overhead Control A/c	5,000
	35,000		35,000

Overhead Control A/c

	(₹)		(₹)
To Stores Ledger Control A/c	10,000	By Work-in-process	1,20,000
To Stores Ledger Control A/c	3,000	Control A/c	
To Cost Ledger Control A/c	1,25,000		
To Wages Control A/c	5,000	By Balance c/d	23,000
	1,43,000		1,43,000

WIP Control A/c

	(₹)		(₹)
To Balance b/d	30,000	By Stores Ledger Control A/c	40,000
To Stores Ledger Control A/c	80,000	By Finished goods Control A/c	2,00,000*
To Wages Control A/c	30,000		
To Overheads Control A/c	1,20,000	By Balance c/d	20,000
	2,60,000		2,60,000

* Finished output at cost	2,00,000
Profit at 10% on actual cost from WIP Sales	20,000
	2,20,000

Statement of Profit as per Costing Records

	(₹)
Direct material Cost	40,000
Direct wages	30,000
Prime Cost	**70,000**

Production Overheads	1,20,000
***Works* Cost**	**1,90,000**
Add: Opening WIP	30,000
	2,20,000
Less: Closing WIP	(20,000)
Cost of finished goods	**2,00,000**
Profit (10% of cost)	20,000
Sales	**2,20,000**

Profit & Loss A/c

		(₹)			(₹)
To	Material (Op. bal. + Purchases - Sale)	90,000	By	Sales A/c	2,20,000
To	Work-in-process Control A/c	30,000	By	Closing Work-in-process	20,000
To	Wages Control A/c	35,000	By	Closing Finished goods	37,000
To	Overheads Control A/c	1,25,000	**By**	**Net loss**	**3,000**
		2,80,000			**2,80,000**

Reconciliation Statement

	(₹)
Profit (loss) as per Financial Accounts	**(3,000)**
Add: Overheads over absorbed in Cost A/c	23,000
Net Profit as per Accounts	**20,000**

ILLUSTRATION 11

The following figures have been extracted from the Financial Accounts of a manufacturing firm for the first year of its operation:

	(₹)
Direct Material Consumption	*50,00,000*
Direct Wages	*30,00,000*
Factory Overhead	*16,00,000*

Administration Overheads (production related)	*7,00,000*
Selling and Distribution Overheads	*9,60,000*
Bad Debts	*80,000*
Preliminary Expenses written off	*40,000*
Legal Charges	*10,000*
Dividends Received	*1,00,000*
Interest Received on Deposits	*20,000*
Sales (1,20,000 units)	*1,20,00,000*
Closing Stock:	
Finished Goods (4,000 units)	*3,20,000*
Work-in-Process	*2,40,000*

The cost accounts for the same period reveal that the direct material consumption was ₹ 56,00,000. Factory overhead is recovered at 20% on prime cost. Administration overhead is recovered at ₹ 6 per unit of production. Selling and distribution overheads are recovered at ₹ 8 per unit sold.
PREPARE the Profit and Loss Accounts both as per financial records and as per cost records. RECONCILE the profits as per the two records.

SOLUTION

Profit and Loss Account
(*As per financial records*)

		(₹)			(₹)
To	Direct Material	50,00,000	By	Sales (1,20,000 units)	1,20,00,000
To	Direct Wages	30,00,000	By	Closing Stock	
To	Factory Overheads	16,00,000		Work-in-process	2,40,000
To	Gross Profit c/d	29,60,000		Finished Goods (4,000 units)	3,20,000
		1,25,60,000			1,25,60,000
To	Administration Overheads	7,00,000	By	Gross Profit b/d	29,60,000
To	Selling and Dist.	9,60,000	By	Dividend	1,00,000

	OH				
To	Bad Debts	80,000	By	Interest	20,000
To	Preliminary Expenses written off	40,000			
To	Legal Charges	10,000			
To	**Net Profit**	**12,90,000**			
		30,80,000			**30,80,000**

Statement of Cost and Profit
(*As per Cost Records*)

		Total (₹)
	Direct Material	56,00,000
	Direct Wages	30,00,000
	Prime Cost	**86,00,000**
	Factory Overhead (20% of ₹86,00,000)	17,20,000
		1,03,20,000
Less:	Closing Stock (WIP)	(2,40,000)
	Works Cost (1,24,000 units)	**1,00,80,000**
	Administration overhead (1,24,000 units @ ₹ 6 p.u.)	7,44,000
	Cost of production of (1,24,000 units)	**1,08,24,000**
Less:	Finished Goods (4,000 units @ ₹ 87.29)	(3,49,160)
	Cost of goods sold (1,20,000 units)	**1,04,74,840**
	Selling and Distribution Overhead (1,20,000 @ ₹ 8 p.u.)	9,60,000
	Cost of Sales	**1,14,34,840**
	Net profit (Balancing figure)	5,65,160
	Sales Revenue	**1,20,00,000**

Statement of Reconciliation of profit as obtained under Cost and Financial Accounts

		(₹)	**Total (₹)**
	Profit as per Cost Records		**5,65,160**
Add:	Excess of Material Consumption	6,00,000	
	Factory Overhead	1,20,000	

	Administration Overhead	44,000	
	Dividend Received	1,00,000	
	Interest Received	20,000	8,84,000
			14,49,160
Less:	Bad debts	80,000	
	Preliminary expenses written off	40,000	
	Legal Charges	10,000	
	Over-valuation of stock in cost book	29,160	
	(₹ 3,49,160 – ₹ 3,20,000)		(1,59,160)
	Profit as per Financial Records		**12,90,000**

7.5 ACCOUNTING FOR MANAGEMENT INFORMATION AND COST CONTROL

With a view to control costs, standard cost for each element of cost is set. The standard costs so set are used to measure and compare the actual costs. This enable the management to trace cost variances from the standard cost. The variances so obtained are analysed and necessary actions are taken. This ensures that standard costs are adhered.

For cost control purpose, the management needs specific accounting system which fulfils the management objective of controlling costs. On the basis of timing of variance analysis, **two main types of management accounting systems are followed:**

(I) SINGLE PLAN:

Under this system of management accounting, the variances in costs from the set standards are reported at its happenings without waiting for books closing. Timely analysis is done so that much time is not lost in taking corrective action wherever needed.

The single plan system envisages the posting of all items in the debit side of the work-in-progress account at the standard cost leaving the credit side to represent the standard cost of finished production and work-in-progress.

This system enables the **ascertainment of variances as and when the transaction is posted to work-in-progress account.** In other words, the analysis of variances is done from the original documents like invoices, labour sheets, etc., and this method of analysis is known as **analysis at source.**

Since, the single plan system contemplates the analysis of variances at source, the installation of this system requires more planning so that effective documentation at each stage is introduced for proper recording and analysis of variance.

Thus for example, the issue of bill of materials to the stores enables the storekeeper to calculate the standard value of materials. If any material is requisitioned beyond the standard, he can mark the same for material usage variance account. In the production department, as and when the finished output is recorded, the standard waste and actual waste can be compared and necessary entries can be made by the shop supervisors for posting the excessive usage to appropriate variance accounts.

Scheme of entries: So far as materials are concerned, **material price variances are recorded at the time of receipt of the material and the material quantity variances are recorded as far as possible when excess materials are used**. The entries will be as illustrated below:

1. Material Control A/c ....Dr.

   Material Price Variance A/c ....Dr.

   (Actual Cost > Standard Cost)

   To Creditors/ Cost Ledger Control A/c.

   To Material Price Variance A/c

   (Actual Cost < Standard Cost)

This entry enables the firm to debit the material control account with the actual purchases at standard cost and credit the creditor's account at the actual cost of actual prices thereby transferring the variances to price variance account.

2. Work-in-progress Control A/c ....Dr.

   Material Usage Variances A/c..................Dr.

   (Actual usage > Standard usage)

   To Material Control A/c

   To Material Usage Variances A/c

   (Actual usage < Standard usage)

This entry charges the work-in-progress control account with the standard cost of standard quantity and credit the material control account at the standard cost of actual issue, the variance being transferred to usage variance account.

3. Wages Control A/c ....Dr.

Labour Rate Variances A/c ....Dr.

(Actual wage rate > Standard wage rate)

To Cash/ Cost Ledger Control A/c

To Labour Rate Variances A/c

(Actual wage rate < Standard wage rate)

This entry is passed to record the wages at standard rate thereby transferring rate variances to the appropriate account.

4. Work-in-progress Control A/c ....Dr.

Overhead Expense Variances A/c ....Dr.

(Actual OH > Standard OH)

To Overhead Expense Control A/c.

To Overhead Expense Variances A/c

(Actual OH < Standard OH)

(II) PARTIAL PLAN:

In the partial plan, **variances are analysed at the end of period**. Under this method the work-in-progress account is charged at the actual cost of production for the period and is credited with the standard cost of the period's production of finished product.

The **closing balance of work-in-progress** is also shown at **standard cost**. The balance after making the credit entries represent the variance from standard for the period. The analysis of the variance is done after the end of the period. This method is simple in operation because variances are analysed after the end of period but may present difficulties if the firm makes a variety of products.

Recapitulation:

(1) Current standards are used in both the systems.

(2) Under the partial plan, material stocks are carried at actual cost whereas the same are carried out at standard cost under the single plan.

(3) The work-in-progress and finished goods are valued at standard cost under both the methods.

(4) ***Computation of variances :***

(a) *In partial plan*, material price variance is computed on material used in finished goods and work-in-progress whereas *in single plan* it is computed on the material quantity purchased.

(b) The *partial plan* is suitable where simple analysis of variance is sufficient at the end of the period whereas the *single plan* is preferred if frequent detailed analysis of variance is desired, as (a) the comparison of actual with standard cost of each operation or operator or (b) the daily reporting of standard cost of excess material used.

SUMMARY

- ***Cost Control Accounts:*** *These are accounts maintained for the purpose of exercising control over the costing ledgers and also to complete the double entry in cost accounts.*
- ***Integral System of Accounting:*** *A system of accounting where both costing and financial transactions are recorded in the same set of books.*
- ***Non- Integral System of Accounting****: A system of accounting where two sets of books are maintained- (i) for costing transactions; and (ii) for financial transactions*
- ***Reconciliation****: In the Non-Integral System of Accounting, since the cost and financial accounts are kept separately, it is imperative that those should be reconciled, otherwise the cost accounts would not be reliable. The reason for differences in the cost & financial accounts can be of purely financial nature (Income and expenses) and notional nature.*
- ***On the basis of timing of variance analysis***:
  - ***Single Plan****- Under this system of management accounting, the variances in costs from the set standards are reported at its happenings without waiting for books closing.*
  - ***Partial Plan****- In this pan, variances are analysed at the end of period.*

TEST YOUR KNOWLEDGE

MCQS BASED QUESTIONS

1. Under non-integrated accounting system
   - (a) Same ledger is maintained for cost and financial accounts by accountants
   - (b) Separate ledgers are maintained for cost and financial accounts
   - (c) (a) and (b) both
   - (d) None of the above
2. Notional costs
   - (a) May be included in integrated accounts
   - (b) May be included in non- integrated accounts
   - (c) Cannot be included in non-integrated accounts
   - (d) None of the above
3. Under non-integrated accounting system, the account made to complete double entry is
   - (a) Stores ledger control account
   - (b) Work in progress control account
   - (c) Finished goods control account
   - (d) General ledger adjustment account
4. Integrated systems of accounts are maintained
   - (a) In separate books of accounts for costing and financial accounting purposes
   - (b) In same books of accounts
   - (c) Both (a) & (b)
   - (d) None of the above
5. Under non-integrated system of accounting, purchase of raw material is debited to which account
   - (a) Material control account / stores ledger control account
   - (b) General ledger adjustment account

(c) Purchase account

(d) None of the above

6. Under control accounts, if material worth ₹ 1500 is purchased for a special job, then which account will be debited

   (a) Special job account / work in progress account

   (b) Material control account

   (c) Cost control account

   (d) None of the above

7. Which account is to be debited if material worth ₹ 500 is returned to vendor under control accounts

   (a) Cost ledger control account

   (b) Stores ledger control account

   (c) WIP control account

   (d) None of the above

8. Which of the following items is included in cost accounts?

   (a) Notional rent

   (b) Donations

   (c.) Transfer to general reserve

   (d) Rent receivable

9. When costing loss is ₹ 5,600, administrative overhead under-absorbed being ₹ 600, the loss as per financial accounts should be

   (a) ₹ 5,600

   (b) ₹ 6,200

   (c) ₹ 5,000

   (d) None of the above

10. Which of the following items should be added to costing profit to arrive at financial profit?

   (a) Over-absorption of works overhead

   (b) Interest paid on debentures

   (c) Income tax paid

(d) All of the above

Theoretical Questions

1. EXPLAIN what are the essential pre-requisites of integrated accounting system?
2. STATE what are the advantages of integrated accounting?
3. EXPLAIN why is it necessary to reconcile the Profits between the Cost Accounts and Financial Accounts?
4. STATE what are the reasons for disagreement of profits as per cost accounts and financial accounts? Discuss.
5. LIST the Financial expenses which are not included in cost.
6. STATE when is the reconciliation statement of Cost and Financial accounts not required?

Practical Problems

1. The following incomplete accounts are furnished to you for the month ended 31st October, 20X8.

Stores Ledger Control Account

1.10.20X8 To Balance ₹ 54,000

Work in Process Control Account

1.10. 20X8 To Balance ₹ 6,000

Finished Goods Control Account

1.10. 20X8 To Balance ₹ 75,000

Factory Overheads Control Account

Total debits for October, 20X8₹ 45,000

Factory Overheads Applied Account

Cost of Goods Sold Account

Creditors for Purchases Account

1.10. 20X8 By Balance ₹ 30,000

Additional information:

(i) The factory overheads are applied by using a budgeted rate based on direct labour hours. The budget for overheads for 20X8 is ₹ 6,75,000 and the budget of direct labour hours is 4,50,000.

(ii) The balance in the account of creditors for purchases on 31.10.20X8 is ₹ 15,000 and the payments made to creditors in October, 20X8 amount to ₹ 1,05,000.

(iii) The finished goods inventory as on 31st October, 20X8 is ₹ 66,000.

(iv) The cost of goods sold during the month was ₹ 1,95,000.

(v) On 31st October, 20X8 there was only one unfinished job in the factory. The cost records show that ₹ 3,000 (1,200 direct labour hours) of direct labour cost and ₹ 6,000 of direct material cost had been charged.

(vi) A total of 28,200 direct labour hours were worked in October, 20X8. All factory workers earn same rate of pay.

(vii) All actual factory overheads incurred in October, 20X8 have been posted.

You are required to FIND:

(a) Materials purchased during October, 20X8.

(b) Cost of goods completed in October, 20X8.

(c) Overheads applied to production in October, 20X8.

(d) Balance of Work-in-process Control A/c on 31st October, 20X8.

(e) Direct materials consumed during October, 20X8.

(f) Balance of Stores Ledger Control Account on 31st October, 20X8.

(g) Over absorbed or under absorbed overheads for October, 20X8.

2. A company operates on historic job cost accounting system, which is not integrated with the financial accounts. At the beginning of a month, the opening balances in cost ledger were:

	₹ (in lakhs)
Stores Ledger Control Account	80
Work-in-Process Control Account	20
Finished Goods Control Account	430

Building Construction Account	10
Cost Ledger Control Account	540

During the month, the following transaction took place:

Materials –	Purchased		40	
	Issued to production		50	
	Issued to factory maintenance		6	
	Issued to building construction		4	
Wages –	Gross wages paid		150	
	Indirect wages	40		
	For building construction	10		
Works Overheads–	Actual amount incurred (excluding items shown above)		160	
	Absorbed in building construction			20
	Under absorbed	8		
Royalty paid	(related to production)	5		
Selling, distribution and administration overheads			25	
Sales				450

At the end of the month, the stock of raw material and work-in-Process was ₹ 55 lakhs and ₹ 25 lakhs respectively. The loss arising in the raw material accounts is treated as factory overheads. The building under construction was completed during the month. Company's gross profit margin is 20% on sales.

PREPARE the relevant control accounts to record the above transactions in the cost ledger of the company.

3. Dutta Enterprises operates an integral system of accounting. You are required to PASS the Journal Entries for the following transactions that took place for the year ended 30th June, 20X8.

(Narrations are not required.)

	(₹)
Raw materials purchased (50% on Credit)	6,00,000
Materials issued to production	4,00,000
Wages paid (50% Direct)	2,00,000

Wages charged to production	1,00,000
Factory overheads incurred	80,000
Factory overheads charged to production	1,00,000
Selling and distribution overheads incurred	40,000
Finished goods at cost	5,00,000
Sales (50% Credit)	7,50,000
Closing stock	Nil
Receipts from debtors	2,00,000
Payments to creditors	2,00,000

4. The following figures are extracted from the Trial Balance of Go-getter Co. on 30th September, 20X8:

	Dr. (₹)	Cr. (₹)
Inventories:		
Finished Stock	80,000	
Raw Materials	1,40,000	
Work-in-Process	2,00,000	
Office Appliances	17,400	
Plant & Machinery	4,60,500	
Building	2,00,000	
Sales		7,68,000
Sales Return and Rebates	14,000	
Materials Purchased	3,20,000	
Freight incurred on Materials	16,000	
Purchase Returns		4,800
Direct employee cost	1,60,000	
Indirect employee cost	18,000	
Factory Supervision	10,000	
Repairs and Upkeep Factory	14,000	
Heat, Light and Power	65,000	

Rates and Taxes	6,300	
Miscellaneous Factory Expenses	18,700	
Sales Commission	33,600	
Sales Travelling	11,000	
Sales Promotion	22,500	
Distribution Deptt.—Salaries and Expenses	18,000	
Office Salaries and Expenses	8,600	
Interest on Borrowed Funds	2,000	

Further details are available as follows:

(i)	Closing Inventories:	
	Finished Goods	1,15,000
	Raw Materials	1,80,000
	Work-in-Process	1,92,000
(ii)	Accrued expenses on:	
	Direct employee cost	8,000
	Indirect employee cost	1,200
	Interest on Borrowed Funds	2,000
(iii)	Depreciation to be provided on:	
	Office Appliances	5%
	Plant and Machinery	10%
	Buildings	4%

(iv) Distribution of the following costs:

Heat, Light and Power to Factory, Office and Distribution in the ratio 8 : 1 : 1.

Rates and Taxes two-thirds to Factory and one-third to Office.

Depreciation on Buildings to Factory, Office and Selling in the ratio 8 : 1 : 1.

With the help of the above information, you are required to PREPARE a condensed Profit and Loss Statement of Go-getter Co. for the year ended 30th September, 20X8 along with supporting schedules of:

(i) Cost of Sales.

(ii) Selling and Distribution Expenses.

(iii) Administration Expenses.

5. The following information is available from the financial books of a company having a normal production capacity of 60,000 units for the year ended 31st March, 20X8:

(i) Sales ₹ 10,00,000 (50,000 units).

(ii) There was no opening and closing stock of finished units.

(iii) Direct material and direct wages cost were ₹ 5,00,000 and ₹ 2,50,000 respectively.

(iv) Actual factory expenses were ₹ 1,50,000 of which 60% are fixed.

(v) Actual administrative expenses related with production activities were ₹ 45,000 which are completely fixed.

(vi) Actual selling and distribution expenses were ₹ 30,000 of which 40% are fixed.

(vii) Interest and dividends received ₹ 15,000.

You are required to:

(a) FIND OUT profit as per financial books for the year ended 31st March,20X8;

(b) PREPARE the cost sheet and ascertain the profit as per cost accounts for the year ended 31st March, 20X8 assuming that the indirect expenses are absorbed on the basis of normal production capacity; and

(c) PREPARE a statement reconciling profits shown by financial and cost books.

6. M/s. H.K. Piano Company showed a net loss of ₹ 4,16,000 as per their financial accounts for the year ended 31st March, 20X8. The cost accounts, however, disclosed a net loss of ₹ 3,28,000 for the same period. The following information was revealed as a result of scrutiny of the figures of both the sets of books:

		(₹)
(i)	Factory overheads under-recovered	6,000
(ii)	Administration overheads over-recovered	4,000
(iii)	Depreciation charged in financial accounts	1,20,000

(iv)	Depreciation recovered in costs	1,30,000
(v)	Interest on investment not included in costs	20,000
(vi)	Income-tax provided	1,20,000
(vii)	Transfer fees (credit in financial books)	2,000
(viii)	Stores adjustment (credit in financial books)	2,000

PREPARE a Memorandum reconciliation account.

ANSWERS/ SOLUTIONS

Answers to the MCQs Based Questions

1.	(b)	**2.**	(c)	**3.**	(d)	**4.**	(b)	**5.**	(a)	**6.**	(a)
7.	(a)	**8.**	(a)	**9.**	(b)	**10.**	(a)				

Answers to the Theoretical Questions

1. Please refer paragraph 7.3

2. Please refer paragraph 7.3

3. Please refer paragraph 7.4

4. Please refer paragraph 7.4

5. Please refer paragraph 7.4

6. Please refer paragraph 7.4

7. Please refer paragraph 7.4

Answer to the Practical Problems

1. Working Notes:

(i) Overhead recovery rate per direct labour hour:

Budgeted factory overheads : ₹ 6,75,000

Budgeted direct labour hours : 4,50,000

Overhead recovery rate : $= \frac{\text{Budgeted factory overheads}}{\text{Budgeted direct labour hours}}$

$= \frac{₹\,6,75,000}{4,50,000 \text{ hours}}$

= **₹ 1.50 per direct labour**

(ii) Direct wage rate per hour:

Direct labour cost of WIP : ₹ 3,000
(on 31st October 20X2)

Direct labour hours of WIP : 1,200 hours

Direct wage rate per hour : $= \frac{\text{Direct labour cost on WIP}}{\text{Direct labour hours on WIP}}$

$= \frac{₹\,3{,}000}{1{,}200\text{ hours}} =$ **₹2.50**

(iii) Total direct wages charged to production:

Total direct labour hours spent on production × Direct wage rate per hour

= 28,200 hours × ₹ 2.50 = **₹ 70,500**

(a) Material purchased during October, 20X8

	(₹)
Payment made to creditors	1,05,000
Add: Closing balance in the account of creditors for purchase	15,000
Less: Opening balance	(30,000)
Material Purchased	**90,000**

(b) Cost of goods completed in October, 20X8

	(₹)
Cost of goods sold during the month	1,95,000
Add: Closing finished goods inventory	66,000
Less: Opening finished goods inventory	(75,000)
Cost of goods completed during the month	**1,86,000**

(c) Overhead applied to production in October, 20X8

= 28,200 hours × ₹ 1.50 = **₹ 42,300**

(d) Balance of Work-in-Process on 31st October, 20X8

	(₹)
Direct material cost	6,000
Direct labour cost	3,000
Overheads (₹ 1.50 × 1,200 hours)	1,800
	10,800

(e) Direct material consumed during October, 20X8 ’78,00078,000

(Refer to following Account)

Work in Process Control A/c

		(₹)			(₹)
To	Balance b/d	6,000	By	Finished goods stock	1,86,000
To	Wages Control A/c [Refer working note (iii)]	70,500	By	Balance c/d [Refer (d) above]	10,800
To	Factory OH Control A/c [Refer (c) above]	42,300			
To	Material consumed (Balancing fig.)	78,000			
		1,96,800			1,96,800

(f) Balance of Stores Control Account on 31st October, 20X8 ₹ 66,000

(Refer to following Account)

Stores Ledger Control Account

		(₹)			(₹)
To	Balance b/d	54,000	By	Work-in-process Control A/c [Refer (e) above]	78,000
To	Cost Ledger Control A/c [Refer (a) above}	90,000	By	Balance c/d (Balancing fig.)	66,000
		1,44,000			1,44,000

(g) **Over-absorbed or under-absorbed overheads for October, 20X8:** Balance in Factory Overhead Account below showing that ₹ 2,700 is under-absorbed.

Factory Overhead Account

	(₹)		(₹)
To Cost Ledger Control A/c	45,000	By Work-in-process Control A/c (Factory OH applied)	42,300
		By Costing P/L A/c (Under-absorbed)	2,700
	45,000		45,000

2. *Amount (in lakhs)*

Cost Ledger Control A/c

	(₹)		(₹)
To Costing P&L A/c	450	By Balance b/d	540
To Building Construction A/c	44	By Stores Ledger Control A/c	40
To Balance c/d	483	By Wages Control A/c	150
		By Works OH Control A/c	160
		By Royalty A/c	5
		By Admn. OH and S&D OH A/c	25
		By Costing P&L A/c	57
	977		977

Stores Ledger Control A/c

	(₹)		(₹)
To Balance b/d	80	By Work-in-process A/c	50
To Cost Ledger Control A/c	40	By Works OH Control A/c	6
		By Building Const. A/c	4
		By Works OH Control A/c (Bal. fig.) (loss)	5
		By Balance c/d	55
	120		120

Work-in-Process Control A/c

		(₹)			(₹)
To	Balance b/d	20	By	Finished Goods Control A/c (Balancing figure)	333
To	Stores Ledger Control A/c	50			
To	Wages Control A/c	100			
To	Works OH Control A/c	183			
To	Royalty A/c	5	By	Balance c/d	25
		358			358

Works Overhead Control A/c

		(₹)			(₹)
To	Stores Ledger Control A/c	6	By	Building Const. A/c	20
To	Wages Control A/c	40	By	Work-in-process Control A/c (Balancing figure)	183
To	Cost Ledger Control A/c	160	By	Costing P&L A/c (under-absorption)	8
To	Store Ledger Control A/c (loss)	5			
		211			211

Wages Control A/c

		(₹)			(₹)
To	Cost Ledger Control A/c	150	By	Works OH Control A/c	40
			By	Building Const. A/c	10
			By	Work-in-process Control A/c (Balancing figure)	100
		150			150

Royalty A/c

		(₹)			(₹)
To	Cost Ledger Control A/c	5	By	Work-in-process Control A/c	5
		5			5

Finished Goods Control A/c

	(₹)		(₹)
To Balance b/d	430	By Cost of Goods Sold A/c (80% of ₹ 450)	360
To Work-in-process Control A/c	333	By Balance c/d	403
	763		763

Cost of Goods Sold A/c

	(₹)		(₹)
To Finished Goods Control A/c	360	By Cost of sales A/c	360
	360		360

Selling, Distribution and Administration Overhead A/c

	(₹)		(₹)
To Cost Ledger Control A/c	25	By Cost of sales A/c	25
	25		25

Cost of Sales A/c

	(₹)		(₹)
To Cost of Goods Sold	360	By Costing P&L A/c	385
To Admn. OH and S&D OH A/c	25		
	385		385

Costing P & L A/c

	(₹)		(₹)
To Cost of Sales A/c	385	By Cost Ledger Control A/c (Sales)	450
To Works Overhead Control A/c	8		
To Cost Ledger Control A/c (Profit) (Balancing figure)	57		
	450		450

Building Construction A/c

	(₹)		(₹)
To Balance b/d	10	By Cost Ledger Control A/c	44
To Stores Ledger Control A/c	4		
To Wages Control A/c	10		
To Works OH Control A/c	20		
	44		44

Trial Balance *(₹ in lakhs)*

	DR. (₹)	CR. (₹)
Stores control A/c	55	
Work-in-Process A/c	25	
Finished goods A/c	403	
Cost Ledger Adjustment A/c		483
	483	**483**

3. Journal entries are as follows:

		DR. (₹)	CR. (₹)
Stores Ledger Control A/c................................	Dr.	6,00,000	
To Payables (Creditors) A/c			3,00,000
To Cash or Bank			3,00,000
Work-in-Process Control A/c........................	Dr.	4,00,000	
To Stores Ledger Control A/c			4,00,000
Wages Control A/c..	Dr.	2,00,000	
To Bank A/c			2,00,000
Factory Overhead Control A/c........................	Dr.	1,00,000	
To Wages Control A/c			1,00,000
Work-in-Process Control A/c..........................	Dr.	1,00,000	
To Wages Control A/c			1,00,000
Factory Overhead Control A/c....................	Dr.	80,000	
			80,000

To Bank A/c			
Work-in-Process Control A/c.......................	Dr.	1,00,000	
To Factory Overhead Control A/c			1,00,000
Selling and Distribution Overhead Control A/c	Dr.	40,000	
To Bank A/c			40,000
Finished Goods Control A/c.......................	Dr.	5,00,000	
To Work-in-Process Control A/c			5,00,000
Cost of Sales A/c...	Dr.	5,40,000	
To Finished Goods Control A/c			5,00,000
To Selling and Distribution Control A/c			40,000
Receivables (Debtors) A/c..................................	Dr.	3,75,000	
Bank or Cash A/c..	Dr.	3,75,000	
To Sales A/c			7,50,000
Bank A/c..	Dr.	2,00,000	
To Receivables (Debtors) A/c			2,00,000
Payables (Creditors) A/c....................................	Dr.	2,00,000	
To Bank A/c			2,00,000

4. Profit and Loss Statement of Go-getter Company

for the year ended 30th September, 20X8

	(₹)	(₹)
Gross Sales	7,68,000	
Less: Returns	(14,000)	7,54,000
Less: Cost of Sales [Refer to Schedule (i)]		(7,14,020)
Net Operating Profit		39,980
Less: Interest on borrowed funds		(4,000)
Net Profit		**35,980**

(i) Schedule of Cost of Sales

	(₹)	(₹)
Raw Material (Inventory opening balance)		1,40,000
Add: Material Purchased	3,20,000	

Add: Freight on Material	16,000	
Less: Purchase Returns	(4,800)	3,31,200
		4,71,200
Less: Closing Raw Material Inventory		(1,80,000)
Materials consumed in Production		2,91,200
Direct employee cost (₹1,60,000 + ₹8,000)		1,68,000
Prime Cost		**4,59,200**
Factory Overheads:		
Indirect employee cost (₹18,000 + ₹1,200)	19,200	
Factory Supervision	10,000	
Repairs and Factory Upkeep	14,000	
Heat, Light and Power (₹65,000 × 8/10)	52,000	
Rates and Taxes (₹6,300 × 2/3rd)	4,200	
Miscellaneous Factory Expenses	18,700	
Depreciation of Plant (10% of ₹4,60,500)	46,050	
Depreciation of Buildings (4% of ₹2,00,000 × 8/10)	6,400	1,70,550
Gross Works Cost		**6,29,750**
Add: Opening Work-in-Process inventory		2,00,000
Less: Closing Work-in-Process inventory		(1,92,000)
Cost of production		**6,37,750**
Add: Opening Finished Goods inventory		80,000
Less: Closing Finished Goods inventory		(1,15,000)
Cost of Goods Sold		**6,02,750**
Add: Administration Expenses [*See* Schedule (*iii*)]		18,870
Add: Selling and Distribution Expenses [*See* Schedule (*ii*)]		92,400
Cost of Sales		**7,14,020**

(ii) Schedule of Selling and Distribution Expenses

	(₹)
Sales Commission	33,600
Sales Travelling	11,000
Sales Promotion	22,500
Distribution Deptt.—Salaries and Expenses	18,000
Heat, Light and Power	6,500
Depreciation of Buildings	800
	92,400

(iii) Schedule of Administration Expenses

	(₹)
Office Salaries and Expenses	8,600
Depreciation of Office Appliances	870
Depreciation of Buildings	800
Heat, Light and Power	6,500
Rates and Taxes	2,100
	18,870

5. Working Note:

Profit & Loss Account
(for the year ended 31st March, 20X8)

		(₹)			(₹)
To	Direct Material	5,00,000	By	Sales (50,000 units)	10,00,000
To	Direct Wages	2,50,000	By	Interest and dividends	15,000
To	Factory expenses	1,50,000			
To	Administrative expenses	45,000			
To	Selling & Dist. Expenses	30,000			
To	**Net Profit**	**40,000**			
		10,15,000			10,15,000

(a) Profit as per financial books for the year ended 31st March, 20X8 is ₹ 40,000 (Refer to above Working note).

(b) **Cost Sheet**

(for the year ended 31st March, 20X8)

	(₹)	(₹)
Direct material		5,00,000
Direct wages		2,50,000
Prime cost		**7,50,000**
Factory expenses:		
Variable (40% of ₹ 1,50,000)	60,000	
Fixed (₹ 90,000 × 50,000/60,000)	75,000	1,35,000
Works cost		**8,85,000**
Administrative expenses: (₹ 45,000 × 50,000/60,000)		37,500
Cost of production		**9,22,500**
Selling & distribution expenses:		
Variable (60% of ₹ 30,000)	18,000	
Fixed* (₹ 12,000 × 50,000/60,000)	10,000	28,000
Cost of Sales		**9,50,500**
Profit (Balancing figure)		49,500
Sales revenue		**10,00,000**

*It is assumed that the company sells what it generally produces i.e. normal production.

(c) **Statement of Reconciliation**

(Reconciling profit shown by Financial and Cost Accounts)

	(₹)	(₹)
Profit as per Cost Account		**49,500**
Add : Income from interest and dividends		15,000
		64,500
Less: Factory expenses under-charged in Cost Accounts (₹ 1,50,000 – ₹ 1,35,000)	15,000	
Administrative expenses under-charged in	7,500	

Cost Accounts (₹ 45,000 – ₹ 37,500)		
Selling & distribution expenses under—charged in Cost Accounts (₹ 30,000 – ₹ 28,000)	2,000	24,500
Profit as per Financial Accounts		**40,000**

6. Memorandum Reconciliation Account

		(₹)			(₹)
To	**Net loss as per costing books**	**3,28,000**	By	Administration overhead- over-recovered in costs	4,000
To	Factory overheads under-recovered in costs	6,000	By	Depreciation overcharged in costs	10,000
To	Income-tax not provided in costs	1,20,000	By	Interest on invest-ments not included in costs	20,000
			By	Transfer fees in financial books	2,000
			By	Stores adjustment	2,000
			By	**Net loss as per financial books**	**4,16,000**
		4,54,000			4,54,000