	Particulars	Amount Rs.	Amount Rs.
	Opening Stock of Raw Materials (RM)	***	
Add:	Purchase of RM	***	
Add:	Charges on RM purchased	***	
Add:	Carriage inwards of materials (like entry tax, cartage, Freight, Railway		
	Charges, Excise Duty and landing charges paid for materials purchased)	***	

Less:	Closing Stock of RM	***	

Less:	Purchase returns of RM	***	

Less:	Abnormal Loss of RM	***	
	Direct (or Raw) Materials Consumed	***	
Add:	Direct Labour Cost/Wages		***
	(including any outstanding amount but deducting any prepaid amount)		
Add:	Direct/Chargeable Expenses		***
	(including any outstanding amount but deducting any prepaid amount)		
	Prime Cost		***
Add:	Factory Overhead (OH)	**	
Add:	*Opening work-in-progress (WIP)	**	
		**	
Less:	Sale of processed Scrap	**	
		**	
Less:	*Closing work-in-progress (WIP)	**	***
	Factory Cost/Works Cost		***
Add:	Office and Administration Overhead (OH)		***
	Cost of Production		***
Add:	Opening Stock of Finished Goods (FG)		***
-			***
Less:	Closing Sock of Finished Goods (FG)		***
	Cost of Goods Sold (COGS)		***
Add:	Selling Overhead	**	***
	Distribution Overhead	**	***
	Cost of Sales (Total Cost)		***
	Profit		***
	Selling Price		***

Points to be noted:

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(i)	Regarding valuation of Work-in-Progress: Work-in-progress or partly finished goods may be valued at prime cost or at factory cost . When it is valued at prime cost, the addition (or deduction) of opening (or closing) work-in-progress is made with prime cost. The overhead on opening work-in-progress is added with factory overhead and the overhead on closing work-in-progress is deducted from the factory overhead.
	When work-in-progress is valued at factory cost, the addition/deduction is done as shown in the proforma cost sheet above.
(ii)	<i>Analysis of items on overheads may be made as –</i> <u><i>Factory Overhead</i></u> : Depreciation on Plant & Machinery; Rent, Insurance, Rates, etc., of Factory; Consumable Stores; Cost of Lubricants; Power & Fuel; Gas and Water; Lighting of Godown or Factory; Wages of Factory Staff; Works Stationery, Spares, Cotton Waste; ESI Premium; Employer's contribution to PF, etc.

COST SHEET (THEORY)

<u>Office Overhead/Administration Overhead</u>: Rent and lighting of office; Printing & Stationery; Office Expenses, Office salaries, Depreciation on Office furniture; Directors' remuneration; Meeting expenses; Office stores, Telephone charges, Bank charges, Audit fees, etc.

<u>Selling Overhead</u>: Advertisement, Sales persons' salaries, Commission on sales; Cost of samples and gifts; Materials used for Sales Promotion; Market Research expenses; Cost of Show Rooms, etc.

<u>Distribution Overhead</u>: Repairs and insurance of godown; Packaging expenses; Delivery Charges; Depreciation on Delivery Van; Salary of Despatch Clerks; Costs related to Delivery Vans; Printing & Stationery related to distribution, etc.

- (iii) Expenses (or Losses) excluded from Cost Accounts: Cash Discounts; Interest on any loan, mortgage or debenture; Loss on Sale of Assets; Capital Losses; Legal Expenses; Stamp Duty, etc., related to Shares or Debentures; Share or Debenture Discount; Income Tax or Advance Tax; Transfer to Reserves, Sinking Fund, etc., Loss on Investments; Amounts written off from assets like goodwill, Deferred Revenue Expenditure; Donations and Charities; Damages or Penalties; Dividends paid, etc.
- (iv) Incomes excluded from Cost Accounts: Rent received from employees for using Staff quarters; Cash Discounts received; Apprenticeship Premium received; Income from Investments; Interest received on Bank Deposits or Advances; Capital Profits; Abnormal Profits; Recovery of Bad Debts; Dividends received, etc.
- (v) Notional Costs have not been incurred but still these are included in Cost Accounts as Imputed Costs. These are – Rent on own premises, Interest on own Capital, Salary to the proprietor, Depreciation on Assets which have notionally been written off, etc.
- (vi) CIMA, London has defined a Cost Sheet as "a document which provides for the assembly of the detailed cost of a Cost Centre or Cost Unit". Actually, it is a statement of cost which is prepared for each product or product-mix separately. It shows the classification of costs as Prime Cost, Works Cost, Cost of Production, Cost of Sales, etc. Both total cost or per unit costs may be shown here. Particularly, under Unit Costing, such separate columns are maintained in the Cost Sheet. The Profit elements may also be shown in the cost sheet. Alternatively, the preparation of cost sheets may be sub-divided as "Statement of Cost of Production" which shows the steps as Prime Cost, Works Cost, Cost of Production and then the "Statement of Profit or Loss" where Cost of Sales, Sales Value and Profit or Loss are shown. In any case, a Cost Sheet is prepared at regular intervals, that is, week-wise, month-wise or year-wise etc.

Proforma Cost Sheet as per Cost Accounting Standard-4

Name of Manufacturer:

Address of the Manufacturer:

Registration number of Manufacturer:

Description of Product captively consumed:

Excise Tariff Heading:

Statement of Cost of Production of manufactured/ to be manufactured during the period

Q1. Quantity produced (Unit of Measure)

Q2. Quantity Despatched (Unit of Measure)

COST SHEET (THEORY)

	Particulars	Total Cost	Cost per Unit
		Rs.	Rs.
1.	Materials consumed	*	*
2.	Direct wages and salaries	*	*
3.	Direct Expenses	*	*
4.	Works (or Factory) Overheads	*	*
5.	Quality Control Cost	*	*
6.	Research & Development Cost	*	*
7.	Administration Overheads (relating to Production activity)	*	*
8.	Total Cost $(1 \rightarrow 7)$	***	***
9.	Add: Opening stock of work-in-progress	*	*
10.	Less: Closing stock of work-in-progress	*	*
11.	Total (8+9-10)	***	**
12.	Less: Credit for Recoveries/Scrap/By-product/Misc. Income	*	*
13.	Packing Cost	*	*
14.	Cost of Production (11-12+13)	***	**
15.	Add: Input received free of cost	*	*
16.	Add: Amortised cost of moulds, tools, dies & patterns	*	*
	etc., received free of cost	*	*
17.	Cost of Production for goods produced	***	***
	for captive consumption (14+15+16)	ተተተ	<u> </u>
18.	Add: Opening Stock of Finished goods	*	*
19.	Less: Closing Stock of Finished goods	*	*
20.	Cost of Production for goods despatched (17+18-19)	***	***

Seal & Signature of Company's Authorized Representative

Expenses Deserving Special Attention

	Expenses	Examples	Treatment
1.	Related to Materials Purchased	a. Expenses for acquiring materials like Dock charges, Import Duty, Carriage to Godown, Cartage etc.	a. These expenses are added to the cost of materials purchased. So, they are parts of Direct Materials Consumed. Sometimes, Bulk purchases are made. These expenses may be treated as factory overheads because it may become difficult to attribute these costs to particular materials purchased.
		b.Carriage or Cartage on materials returned to suppliers.	b. These should be treated as factory overheads.
2.	Related to Preservation of	a. Stores Expenses	a. These expenses should be treated as factory overheads
	Materials	b.Loss of materials which may be (i) normal loss occurring due to nature of the goods	b.Normal loss is automatically absorbed within cost of production. It is borne by good units available for sale.
		like leakage, evaporation, etc., and (ii) abnormal loss caused by reasons beyond control like accident, pilferage, etc.	Abnormal loss is excluded from Cost Statement. The net loss after adjusting insurance claim and sale proceeds of damaged goods, is written off to Costing Profit & Loss Account.

COST SHEET (THEORY)

	Expenses	Examples	Treatment	
		c. Sale of Scrap – This means the proceeds received from selling the remnant or residue of defective goods or from sale of salvaged goods.	 c. It is deducted from factory overhead or factory cost. If loss from scrap sale is very high, such loss (cost of scrap less sale proceeds thereof) is charged to the Costing Profit & Loss Account. Cost of betterment of defective goods is treated as factory overhead. 	
3.	Related to Installation, set up, etc. of machines	 a. Cost of setting up is required before making a machine ready for resuming operation. b. Inspection Cost. 	if it can be identified with a particular job, the	
4.	Royalty	a. Royalty paid for using license, patent and copyright.	a. It is paid for units produced and is variable with the quantity of production. It is treated as Direct/Chargeable expense which is included within Prime Cost.	
		b.Royalty paid on sales.	b.It is considered as a selling overhead and is included in Cost of Sales / Total Cost.	
5.	Related to workers	a. Welfare Expenses	a. Generally, such expenses are attributed to the production departments and treated as factory overheads. If these are paid for the general benefit of workers, these are treated as office overheads.	
		b. Canteen Expenses.	b.Same as (a).	
		c. Training Expenses.	c. Treated as factory overhead.	
		d. Wages of Apprentices	d. Apprentices are not expected to make valuable contributions to production. Their wages, as such, should better be treated as Indirect Wages, that is, as factory overhead.	
		e. Additional benefit to workers like workmen's compensation insurance, travel concession, profit sharing bonus, holiday pay, etc.	 e. If wage rate paid to workers is comprehensive in nature and is calculated after including cost of these benefits, such costs become a part of Direct Wages. But normally these are considered as additional costs and treated as factory overhead. 	
6.	Related to designs, patterns, blocks, etc.	Expenses which have been incurred for making blocks, designs, drawings, etc.	Where such expenses are incurred for a particular job or contract, these are treated as Direct/Chargeable Expenses of such Job/Contract. In general, these are considered as factory overheads.	

Accounting Classification of Cost				Element-wise Classification of Cost	Function-wise Classification of Cost	
COST OF SALES (OR TOTAL	COST OF PRODUCTION	FACTORY (WORKS) COST	PRIME COST	Direct Material Cost Direct Labour Cost Direct Expenses	DIRECT COSTS (PRIME COSTS)	Production Costs
AL COST)				Factory Overheads	((
T)				Administration Overheads	INDIRECT CO (OVERHEAD	Administration Costs
				Selling & Distribution Overheads	COSTS EADS)	Selling & Distribution Costs

Classification of Costs

<u>Q.1</u>

Application of weighted average method for stock valuation.

From the following particulars regarding the single output of Anirban & Co. for the quarter ended 31st December 2010, prepare (a) a statement of Cost of Production and (b) a Statement of Profit or Loss, assuming weighted of finished goods Average Method is followed by the company for valuation of closing stock:

	1.10.2010	31.12.2010
	₹	₹
<u>Stock</u> :		
Raw Materials	40,000	50,000
Work-in-Progress	50,000	70,000
Finished Goods	72,000	5,000
	[4,000 units]	units
	₹	
Purchase of Raw Material	1,60,000	
Direct Labour	1,10,000	
Chargeable Expenses	40,000	
Machine Hour Rate	16 per hour	
Machine Hours Worked	5,000 hours	
Office & Administration Overhead	@ ₹ 4.80 per week	
Selling & Distribution Overhead	@ ₹ 3.00 per week	
Sale of 24,000 units	@₹26 per unit	

What would be the difference in stock value if the company follows FIFO method of valuation of closing stock of finished goods?

<u>Solution</u>:

Statement of Cost of Production for the Quarter ended 31.12.2010

	Particulars		Units	Amount ₹	Total Cost ₹	Cost per Unit ₹
	Raw Materials Consumed:					
	Opening Stock of Raw Materials			40,000		
Add:	Purchase of Raw Materials			1,60,000		
				2,00,000		
Less:	Closing Stock of Raw Materials			50,000	1,50,000	
	Direct Wages				1,10,000	
	Chargeable Expenses				40,000	
		Prime Cost			3,00,000	
	Factory Overhead			80,000		
	[Machine Hrs. Worked x Rate OR					
	5,000 x ₹ 16]					
Add:	Opening Work-in-Progress			50,000		
				1,30,000		
Less:	Closing Work-in-Progress			70,000	60,000	
		Works Cost			3,60,000	
	Office & Administration Overhead				1,20,000	
	[Units Produced x ₹ 4.80 OR 25,000	x 4.80]				
			25,000		4,80,000	19.20
			[Note 1]			

If weighted average of finished goods is followed,

		Units	Total	Amount
	Particulars		Amount	per Unit
			₹	₹
	Cost of Production	25,000	4,80,000	19.20
Add:	Opening Stock of Finished Goods	4,000	72,000	
		29,000	5,52,000	
Less:	Closing Stock of Finished Goods	5,000	95,172*	
	[As cost of 29,000 units = ₹ 5,52,000			
	∴ Cost of 5,000 units = $\frac{5,52,000 \times 5,000}{29,000} = ₹95,172$]			
	Cost of Goods Sold	24,000	4,56,828	19.0345
Add:	Selling and Distribution Overhead [24,000 x ₹ 3]		72,000	3.00
			5,28,828	22.0345
	Profit (Balancing Figure)		95,172	3.9655
	Sales (24,000 x ₹ 26)	24,000	6,24,000	26.00

Statement of Profit and Loss for the Quarter ended 31.12.2010

If weighted average of finished goods is valued following FIFO method

		Units	Total	Amount
	Particulars		Amount	per Unit
			₹	₹
	Cost of Production	25,000	4,80,000	19.20
Add:	Opening Stock of Finished Goods	4,000	72,000	
		29,000	5,52,000	
Less:	Closing Stock of Finished Goods	5,000	96,000	
	[As FIFO has been followed, unsold stock represents			
	Current year's production. Its Value is 5,000 x 19.20 =			
	96,000			
	Cost of Goods Sold	24,000	4,56,000	1900
Add:	Selling and Distribution Overhead [24,000 x ₹ 3]		72,000	3.00
			5,28,000	22.00
	Profit (Balancing Figure)		96,000	4.00
	Sales	24,000	6,24,000	26.00

Statement of Profit and Loss for the Quarter ended 31.12.2010

Thus, the value of 5,000 units of closing stock of finished goods should be –

(a)	(a) If Weighted Average method is applied	
	OR	
(b)	If FIFO method is applied	₹96,000

<u>Q.2</u>

From the following particulars relating to the production and sales for the year ended on 31st March 2010 prepare a statement of cost showing therein (i) prime cost, (ii) works cost, (iii) cost of production, (iv) cost of sales, and (v) profit per unit:

	₹		₹
Opening Inventory (1.4.2009)		Raw materials purchased	72,000
Raw materials	6,000	Productive wages	18,000
Work-in-progress	9,620	Machine hours worked	21,600 hours
Finished goods (1,000 units)	13,680	Machine hour rate	1.50
Closing Inventory (31.3.2010)		Chargeable expenses	16,400
Raw materials	7,000	Selling Overhead	₹ 0.90 per unit
Work-in-progress	8,020	Units sold	8,000 units
Finished goods	?	Units produced	8,200 units
		Office & Administration overhead	₹1 per unit
		Profit on sale	10%

Solution:

	Particulars	Amount ₹	Total ₹
	Raw material consumed:		
	Opening stock	6,000	
Add:	Purchase	72,000	
		78,000	
Less:	Closing stock	7,000	71,000
	Productive wages		18,000
	Chargeable expenses		16,400
	Prime Cost	•	1,05,400
Add:	Factory overhead [21,600 hours x ₹ 1.50 per hour]		32,400
Add:	Opening work-in-progress	(+) 9,620	
Less:	Closing work-in-progress	(-) 8,020	1,600
	Works Cost		1,39,400
Add:	Office and administration overhead [1.00 x 8,200]		8,200
	Cost of Production (8,200 units)	•	1,47,600
Add:	Opening finished goods		13,680
		•	1,61,280
Less:	Closing finished goods [1,200 x 18] (See working note 1)		21,600
	Cost of Goods Sold		1,39,680
Add:	Selling overhead [₹ 0.90 x 8,000]		7,200
	Cost of Sales		1,46,880
	Sales Revenue: [₹ 16.20 x 1,000 ÷ ₹ 21 x 7,000] (See working note 2)		1,63,200
	Profit		16,320

PROBLEMS ON COST SHEET – B.COM (2ND SEMESTER)

Workings:

(1)	(a)	Calculation of closing uni	ts of finished goods	;				
		Opening stock			1,000			
	Add:	Production			8,200			
					9,200	_		
	Less:	Units sold			8,000			
		Closing stock (units)			1,200	_		
	(b)	Cost per unit of current p	roduction = $\underbrace{1,47,6}_{8,20}$	00 0 = ₹ 1		_		
(2)								
(3)	Since	the goods were sold on FIF	0 basis (assuming).	The cl	osing stock	of 1,200 units	will be from the	new lot.
(4)	Cost p	er unit:						
					Old lot	₹	New Lot	₹
	Cost n	er unit: Cost of Production	<u>n</u>		13,680	13.68	$\frac{1,47,600}{=}$	18.00
		No.of units			1,000		8,200 -	
	Add: S	elling expenses (@ ₹ 0.90 p	2			0.90		0.90
		Cost of Sal				14.58		18.90
	Profit	(10% on sales or $1/9^{th}$ on c	costs)			1.62		2.10
		Selling Pri	ice			16.20		21.00
		_						
Alte	rnatively	<i>v</i> :	Cost	Pı	ofit	Sales		
			90		10	100		
For	Old Lot:	Cost of sales per unit	t₹14.58	For	New Lot:	Cost of sales	per unit ₹ 18.90	
		Sale Price/unit = $\frac{14}{9}$	$\frac{58}{0} \ge 100 = 16.20$			Sale Price/ur	$hit = \frac{18.90}{90} \ge 100$	= ₹21.00
		Profit = ₹ (16.20-14.	58) = ₹ 1.62 per unit			Profit = ₹ (21	.00-18.90) = ₹ 2.	10 per unit

<u>Q.3</u>

The following data have been extracted from the books of Moonshine Ltd., for the calendar year 2009:

	Rs.		Rs.
Opening Stock of raw materials	25,000	Closing Stock of raw materials	40,000
Wages – direct	75,000	Other factory expenses	5,700
Indirect (factory)	10,000	Other selling expenses	1,000
Rent and Rates - Factory	5,000	Travelling expenses of salesmen	1,100
Office	500	Carriage and freight outward	1,000
Salary – Office	2,500	Sales	2,50,000
Salesmen	2,000	Purchase of raw materials	85,000
Carriage Inward	5,000	Other direct charges	15,000
Indirect consumption of material	500	Depreciation – Plant etc.	1,500
Other office expenses	900	Office furniture	100
Managing Director's remuneration	12,000	Advance income tax paid	15,000
Advertisement expenses	2,000	Dividend paid	5,000
Commission on issue of shares	6,000	Fines and penalties	2,000
Loss on sale of capital assets	2,000	Goodwill written off	8,000
Transfer to general reserve	10,000		

Managing Director's remuneration is to be allocated – Rs. 4,000 to factory, Rs. 2,000 to office and Rs. 6,000 to selling departments. From the above information prepare: (a) Prime Cost, (b) Works Cost, (c) Cost of Production, (d) Cost of Sales, (e) Net Profit.

Solution:

	Particulars	Amount Rs.	Amount Rs.
	Opening stock of Raw materials	25,000	Roi
Add:	Purchase of Raw material	85,000	
Add:	Carriage inward	5,000	
11441		1,15,000	
Less:	Closing stock of raw materials	40,000	
2000.	Cost of Raw Materials used	10,000	75,000
	Direct wages		75,000
	Other direct charges		15,000
	Prime Cost		1,65,000
	Factory Overheads		1,00,000
	Indirect wages	10,000	
	Rent and Rates	5,000	
	Indirect material	500	
	Depreciation of Plant	1,500	
	Other Factory expenses	5,700	
	Managing Director's remuneration (allocated)	4,000	26,700
	Works Cost		1,91,700
	Office and Administration Overheads		
	Rent and Rates	500	
	Depreciation on office furniture	100	
	Salary of office staff	2,500	
	Other office expenses	900	
	Managing Director's remuneration (allocated)	2,000	6,000
	Cost of Production		1,97,700
	Selling and Distribution Overheads		
	Salary of Salesmen	2,000	
	Managing Director's remuneration (allocated)	6,000	
	Other selling expenses	1,000	
	Advertisement expenses	2,000	
	Travelling expenses	1,100	
	Carriage and freight outward	1,000	13,100
	Cost of Sales		2,10,800
	Profit		39,200
	Sales		2,50,000

Statement of Cost and Profit of Moonshine Ltd., for the year 2009

Note:

Following accounts are purely financial nature [i.e., items which appear only in financial accounts and not in Cost Accounts]: (i) Advance Income Tax paid; (ii) Dividend paid; (iii) Fines and penalties; (iv) Goodwill written off; (v) Commission on issue of shares; (vi) Loss on sale of capital assets; (vii) Transfer to general reserve.

Therefore, the above-mentioned items are not considered in cost statement and consequently these items are not going to affect profit or loss as per Cost Accounts.