

COST SHEET

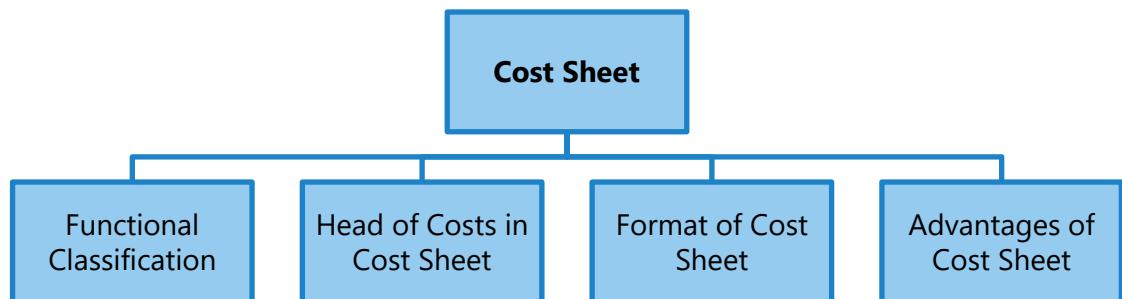


LEARNING OUTCOMES

After studying this chapter, you would be able to-

- ◆ Classify and ascertain Cost on the basis of function.
- ◆ Prepare Cost Sheet/statement for production of goods and providing of services.

CHAPTER OVERVIEW



1. INTRODUCTION

One of the objectives of cost accounting system is ascertainment of cost for a cost object. The cost objects may be a product, service or any cost centre. **Ascertainment of cost includes elementwise collection of costs, accumulation of the costs so collected for a certain volume or period and then arrange all these accumulated costs into a sheet to calculate total cost for the cost object.** In this chapter, a product or a service will be the cost object for cost calculation and cost ascertainment.

A Cost Sheet or Cost Statement is “a document which provides a detailed cost information. In a typical cost sheet, cost information are presented on the basis of functional classification. However, other classification may also be adopted as per the requirements of users of the information.



2. FUNCTIONAL CLASSIFICATION OF ELEMENTS OF COST

Under this classification, costs are divided according to the function for which they have been incurred. The following are the classification of costs based on functions:

- (i) Production/ Manufacturing Cost
- (ii) Administration Cost
- (iii) Selling Cost
- (iv) Distribution Cost
- (v) Research and Development costs etc.



3. COST HEADS IN A COST SHEET

The costs as classified on the basis of functions are grouped into the following cost heads in a cost sheet:

- (i) Prime Cost
- (ii) Cost of Production
- (iii) Cost of Goods Sold
- (iv) Cost of Sales

3.1 Prime Cost

Prime cost represents the total of direct materials costs, direct employee (labour) costs and direct expenses. The total of cost for each element has to be calculated separately.

Direct Material Cost	xxx
Direct Employees (labour) Cost	xxx
Direct Expenses	xxx
Prime Cost:	xxxx

- (i) **Direct Material Cost:** It is the cost of direct material consumed. The cost of direct material consumed is calculated as follows:

Opening Stock of Material	xxx
Add: Additions/ Purchases	xxx
Less: Closing stock of Material	(xxx)
Direct materials consumed	xxxx

The valuation of materials purchased and issued for production shall be done as per methods discussed in the 'Chapter- 2 Material Cost'.

Few examples of items to be added in the cost of raw material :

- (a) Freight inwards;
- (b) Insurance and other expenditure directly attributable to procurement;
- (c) Trade discounts or rebates (to be deducted);
- (d) Duties & Taxes (if input tax credit is not available/ availed) etc.

(ii) **Direct Employee (Labour) Cost:** It is the total of payment made to the employees who are engaged in the production of goods and provision of services. Employee cost is also known as labour cost; it includes the following:

- (a) Wages and salary;
- (b) Allowances and incentives;

- (c) Payment for overtimes;
 - (d) Bonus/ ex-gratia;
 - (e) Employer's contribution to welfare funds such as Provident fund and other similar funds;
 - (f) Other benefits (medical, leave with pay, free or subsidised food, leave travel concession and provisions for retirement benefits) etc.
- (iii) Direct Expenses:** Expenses other than direct material cost and direct employee cost, which are incurred to manufacture a product or for provision of service and can be directly traced in an economically feasible manner to a cost object. The following costs are examples for direct expenses:
- (a) Cost of utilities such as power & fuel, steam etc.;
 - (b) Royalty paid/ payable for production or provision of service;
 - (c) Hire charges paid for hiring specific equipment;
 - (d) Fee for technical assistance and know-how;
 - (e) Amortised cost of moulds, patterns, patents etc.;
 - (f) Cost for product/ service specific design or drawing;
 - (g) Cost of product/ service specific software;
 - (h) Other expenses which are directly related with the production of goods or provision of service.

3.2 Cost of Production

In a conventional cost sheet, this item of cost can be seen. **It is the total of prime cost and factory related costs and overheads.**

Prime Cost	xxx
Add : Factory Overheads	xxx
Gross Works Costs	xxxx
Add: Opening stock of Work-in-process	xxx
Less: Closing stock of Work-in-process	(xxx)

Factory or Works Costs	
Add: Quality Control Cost	xxxx
Add: Research & Development cost (Process related)	xxx
Add: Administrative Overheads related with production	xxx
Less: Credit for recoveries (miscellaneous income)	(xxx)
Add: Packing Cost (Primary packing)	xxx
Cost of Production	xxxx

- (i) **Factory Overheads:** It is also known as **works/production/ manufacturing** overheads. It includes the following indirect costs:
- (a) Consumable stores and spares;
 - (b) Depreciation of plant and machinery, factory building etc.
 - (c) Lease rent of production assets;
 - (d) Repair and maintenance of plant and machinery, factory building etc.
 - (e) Indirect employees cost related with production activities;
 - (f) Drawing and Designing department cost;
 - (g) Insurance of plant and machinery, factory building, stock of raw material & WIP etc.
 - (h) Amortized cost of jigs, fixtures, tooling etc.
 - (i) Service department cost such as Tool Room, Engineering & Maintenance, Pollution Control etc.
- (ii) **Stock of Work-in-process:** The cost of opening and closing stock of work-in-process (WIP) is adjusted to arrive at factory/ works cost. The WIP stock is valued on the basis of percentage of completion in respect of each element of cost. Students may refer the 'Chapter- Process & Operation Costing' to know the WIP valuation methods.
- (iii) **Quality Control Cost:** This is the cost of resources consumed towards quality control procedures.

- (iv) **Research & Development Cost:** It includes only those research and development related cost which is incurred for the improvement of process, system, product or services.
- (v) **Administrative Overheads:** It includes only those administration overheads which are related to production. The **general administration overhead is not included in production cost.**
- (vi) **Credit for Recoveries:** The realised or realisable value of scrap or waste is deducted as it reduces the cost of production.
- (vii) **Packing Cost (primary):** Packing material which is essential to hold and preserve the product for its use by the customer.
- (viii) **Joint Products and By-Products:** Joint costs are allocated between/among the products on a rational and consistent basis. In case of by-products, the net realisable value of by-products is deducted from the cost of production.

3.3 Cost of Goods Sold

It is the cost of production for goods sold. It is calculated after adjusting the values of opening and closing stocks of finished goods. It can be calculated as below:

Cost of Production	xxx
Add: Cost of Opening stock of finished goods	xxx
Less: Cost of Closing stock of finished goods	(xxx)
Cost of Goods Sold	xxxx

3.4 Cost of Sales

It is the total cost of a product incurred to make the product available to the customer or consumer. It includes Cost of goods sold, administration and marketing expenses. It is calculated as below:

Cost of Goods Sold	xxx
Add: Administrative Overheads (General)	xxx
Add: Selling Overheads	xxx
Add: Packing Cost (secondary)	xxx
Add: Distribution Overheads	xxx
Cost of Sales	xxxx

(i) Administrative Overheads: It is the **cost related with general administration** of the entity. It includes the followings:

- (a) Depreciation and maintenance of, building, furniture etc. of corporate or general management.
- (b) Salary of administrative employees, accountants, directors, secretaries etc.
- (c) Rent, rates & taxes, insurance, lighting, office expenses etc.
- (d) Indirect materials- printing and stationery, office supplies etc.
- (e) Legal charges, audit fees, corporate office expenses like directors' sitting fees, remuneration and commission, meeting expenses etc.

(ii) Selling Overheads: It is the **cost related with sale of products or services**. It includes the following costs:

- (a) Salary and wages related with sales department and employees directly related with selling of goods.
- (b) Rent, depreciation, maintenance and other cost related with sales department.
- (c) Cost of advertisement, maintenance of website for online sales, market research etc.

(iii) Packing Cost (secondary): Packing material that enables to store, transport, inform the customer, promote and otherwise make the product marketable.

- (iv) **Distribution Overheads:** It includes the **cost related with making the goods available to the customers.** The costs are :
- Salary and wages of employees engaged in distribution of goods.
 - Transportation and insurance costs related with distribution.
 - Depreciation, hire charges, maintenance and other operating costs related with distribution vehicles etc.



4. COST SHEET/STATEMENT

4.1 Presentation of Cost Information

The cost items in the cost statement shall be presented on 'basis of relevant classification'.

Specimen Format of Cost Sheet for a Manufacturing entity

	Particulars	Total Cost (₹)	Cost per unit (₹)
1.	Direct materials consumed: Opening Stock of Raw Material Add: Additions/ Purchases Less: Closing stock of Raw Material	xxx xxx xxx xxx	
2.	Direct employee (labour) cost	xxx	
3.	Direct expenses	xxx	
4.	Prime Cost (1+2+3)	xxx	
5.	Add: Works/ Factory Overheads	xxx	
6.	Gross Works Cost (4+5)	xxx	
7.	Add: Opening Work in Process	xxx	
8.	Less: Closing Work in Process	(xxx)	
9.	Works/ Factory Cost (6+7-8)	xxx	
10.	Add: Quality Control Cost	xxx	
11.	Add: Research and Development Cost	xxx	

12.	Add: Administrative Overheads (relating to production activity)	xxx	
13.	Less: Credit for Recoveries/Scrap/By-Products/misc. income	(xxx)	
14.	Add: Packing cost (primary)	xxx	
15.	Cost of Production (9+10+11+12-13+14)	xxx	
16.	Add: Opening stock of finished goods	xxx	
17.	Less: Closing stock of finished goods	(xxx)	
18.	Cost of Goods Sold (15+16-17)	xxx	
19.	Add: Administrative Overheads (General)	xxx	
20.	Add: Marketing Overheads : Selling Overheads Distribution Overheads	xxx xxx	
21.	Cost of Sales (18+19+20)	xxx	

Cost sheet/statement for services is also prepared but the format and presentation may differ as per the information requirement. Format and presentation has been discussed in “Service Costing” chapter.

4.2 Treatment of various items of Cost in Cost Sheet/Statement

- (i) **Abnormal costs:** Any abnormal cost, where it is material and quantifiable, shall not form part of cost of production or acquisition or supply of goods or provision of service. Examples of abnormal costs are:
 - (a) Cost pertaining to or arising out of a pandemic e.g. COVID-19
 - (b) Cost associated with employees due to sudden lockdown.
- (ii) **Subsidy/Grant/Incentives:** Any such type of payment received/ receivable are reduced from the cost objects to which such amount pertains.
- (iii) **Penalty, fine, damages, and demurrage:** These types of expenses are not form part of cost.

- (iv) **Interest and other finance costs:** Interest, including any payment in the nature of interest for use of non-equity funds and incidental cost that an entity incurs in arranging those funds. Interest and finance charges are not included in cost of production. Interest and Financing Charges shall be presented in the cost statement as a separate item of cost of sales.

4.3 Advantages of Cost Sheet or Cost Statements

The main advantages of a Cost Sheet are as follows:

- (i) It provides the total cost figure as well as cost per unit of production.
- (ii) It helps in cost comparison.
- (iii) It facilitates the preparation of cost estimates required for submitting tenders.
- (iv) It provides sufficient help in arriving at the figure of selling price.
- (v) It facilitates cost control by disclosing operational efficiency.

ILLUSTRATION 1

The following data relates to the manufacture of a standard product during the month of April:

Particulars	(₹)
Raw materials	₹ 1,80,000
Direct wages	₹ 90,000
Machine hours worked (hours)	10,000
Machine hour rate (per hour)	₹ 8
Administration overheads (general)	₹ 35,000
Selling overheads (per unit)	₹ 5
Units produced	4,000
Units sold	3,600
Selling price per unit	₹ 125

You are required to PREPARE a cost sheet in respect of the above showing:

- (i) Cost per unit
- (ii) Profit for the month

SOLUTION

(i) Cost Sheet

Output: 4,000 units

Particulars	Total Cost (₹)	Cost per (unit) (₹)
Raw materials	1,80,000	45.00
Direct wages	90,000	22.50
Prime cost	2,70,000	67.50
Add: Factory overheads (10,000 hrs × ₹ 8 per hour)	80,000	20.00
Cost of Production	3,50,000	87.50
Less: Closing Stock of finished goods (4,000 – 3,600 units)	(35,000)	--
Cost of Goods Sold	3,15,000	87.50
Add: Administration overheads (general)	35,000	9.72
Add: Selling Overheads (3,600 units × ₹ 5 unit)	18,000	5.00
Cost of sales (total Cost)	3,68,000	102.22

(ii) Statement of Profit

Particulars	Total Cost (₹)
Sales revenue (3,600 units @ ₹ 125)	4,50,000
Less: Cost of sales	3,68,000
Profit	82,000

ILLUSTRATION 2

The following information has been obtained from the records of ABC Corporation for the period from June 1 to June 30.

	On June 1 (₹)	On June 30 (₹)
<i>Cost of raw materials</i>	60,000	50,000
<i>Cost of work-in-process</i>	12,000	15,000
<i>Cost of stock of finished goods</i>	90,000	1,10,000
<i>Purchase of raw materials during June 2020</i>		4,80,000
<i>Wages paid</i>		2,40,000
<i>Factory overheads</i>		1,00,000
<i>Administration overheads (related to production)</i>		50,000
<i>Selling & distribution overheads</i>		25,000
<i>Sales</i>		10,00,000

PREPARE a statement giving the following information:

- (a) Raw materials consumed;
- (b) Prime cost;
- (c) Factory cost;
- (d) Cost of goods sold; and
- (e) Net profit.

SOLUTION

Statement of Cost & Profit
(for the month of June)

	(₹)
Opening stock of raw materials	60,000
Add: Purchase of raw materials during the month of June	4,80,000
Less: Closing stock of raw materials	(50,000)
(a) Raw materials consumed	4,90,000
Add: Direct wages	2,40,000
(b) Prime cost	7,30,000
Add: Factory overheads	1,00,000
Works cost	8,30,000
Add: Opening work-in-process	12,000
Less: Closing work-in-process	(15,000)
(c) Factory cost	8,27,000
Add: Administration overheads	50,000
Cost of production	8,77,000
Add: Opening stock of finished goods	90,000
Less: Closing stock of finished goods	(1,10,000)
(d) Cost of goods sold	8,57,000
Add: Selling & distribution overheads	25,000
Cost of sales	8,82,000
(e) Net Profit	1,18,000
Sales	10,00,000

ILLUSTRATION 3

Arnav Inspat Udyog Ltd. has the following expenditures for the year ended 31st March 2023:

Sl. No.		(₹)	(₹)
(i)	<i>Raw materials purchased</i>		10,00,00,000
(ii)	<i>GST paid on the above purchases @18% (eligible for input tax credit)</i>		1,80,00,000
(iii)	<i>Freight inwards</i>		11,20,600
(iv)	<i>Wages paid to factory workers</i>		29,20,000
(v)	<i>Contribution made towards employees' PF & ESIS</i>		3,60,000
(vi)	<i>Production bonus paid to factory workers</i>		2,90,000
(vii)	<i>Royalty paid for production</i>		1,72,600
(viii)	<i>Amount paid for power & fuel</i>		4,62,000
(ix)	<i>Amount paid for purchase of moulds and patterns (life is equivalent to two years production)</i>		8,96,000
(x)	<i>Job charges paid to job workers</i>		8,12,000
(xi)	<i>Stores and spares consumed</i>		1,12,000
(xii)	<i>Depreciation on:</i>		
	<i>Factory building</i>	84,000	
	<i>Office building</i>	56,000	
	<i>Plant & Machinery</i>	1,26,000	
	<i>Delivery vehicles</i>	86,000	3,52,000

(xiii)	<i>Salary paid to supervisors</i>		1,26,000
(xiv)	<i>Repairs & Maintenance paid for:</i> <i>Plant & Machinery</i>	48,000	
	<i>Sales office building</i>	18,000	
	<i>Vehicles used by directors</i>	19,600	85,600
(xv)	<i>Insurance premium paid for:</i> <i>Plant & Machinery</i>	31,200	
	<i>Factory building</i>	18,100	
	<i>Stock of raw materials & WIP</i>	36,000	85,300
(xvi)	<i>Expenses paid for quality control check activities</i>		19,600
(xvii)	<i>Salary paid to quality control staffs</i>		96,200
(xviii)	<i>Research & development cost paid for improvement in production process</i>		18,200
(xix)	<i>Expenses paid for pollution control and engineering & maintenance</i>		26,600
(xx)	<i>Expenses paid for administration of factory work</i>		1,18,600
(xxi)	<i>Salary paid to functional managers:</i> <i>Production control</i>	9,60,000	
	<i>Finance & Accounts</i>	9,18,000	
	<i>Sales & Marketing</i>	10,12,000	28,90,000
(xxii)	<i>Salary paid to General Manager</i>		12,56,000
(xxiii)	<i>Packing cost paid for:</i> <i>Primary packing necessary to maintain quality</i>	96,000	
	<i>For re-distribution of finished goods</i>	1,12,000	2,08,000

(xxiv)	<i>Interest and finance charges paid (for usage of non- equity fund)</i>		7,20,000
(xxv)	<i>Fee paid to auditors</i>		1,80,000
(xxvi)	<i>Fee paid to legal advisors</i>		1,20,000
(xxvii)	<i>Fee paid to independent directors</i>		2,20,000
(xxviii)	<i>Performance bonus paid to sales staffs</i>		1,80,000
(xxix)	<i>Value of stock as on 1st April, 2022:</i> <i>Raw materials</i> <i>Work-in-process</i> <i>Finished goods</i>	18,00,000 9,20,000 11,00,000	38,20,000
(xxx)	<i>Value of stock as on 31st March, 2023:</i> <i>Raw materials</i> <i>Work-in-process</i> <i>Finished goods</i>	9,60,000 8,70,000 18,00,000	36,30,000

Amount realized by selling of scrap and waste generated during manufacturing process – ₹86,000/-

From the above data you are required to PREPARE Statement of cost for Arnav Ispat Udyog Ltd. for the year ended 31st March, 2023, showing (i) Prime cost, (ii) Factory cost, (iii) Cost of Production, (iv) Cost of goods sold and (v) Cost of sales.

SOLUTION

Statement of Cost of Arnav Ispat Udyog Ltd. for the year ended 31st March, 2023:

Sl. No.	Particulars	(₹)	(₹)
(i)	Material Consumed: Raw materials purchased Freight inwards Add: Opening stock of raw materials Less: Closing stock of raw materials	10,00,00,000 11,20,600 18,00,000 (9,60,000)	10,19,60,600

(ii)	Direct employee (labour) cost:		
	Wages paid to factory workers	29,20,000	
	Contribution made towards employees' PF & ESIS	3,60,000	
	Production bonus paid to factory workers	2,90,000	35,70,000
(iii)	Direct expenses:		
	Royalty paid for production	1,72,600	
	Amount paid for power & fuel	4,62,000	
	Amortised cost of moulds and patterns	4,48,000	
	Job charges paid to job workers	8,12,000	18,94,600
	Prime Cost		10,74,25,200
(iv)	Works/ Factory overheads:		
	Stores and spares consumed	1,12,000	
	Depreciation on factory building	84,000	
	Depreciation on plant & machinery	1,26,000	
	Repairs & Maintenance paid for plant & machinery	48,000	
	Insurance premium paid for plant & machinery	31,200	
	Insurance premium paid for factory building	18,100	
	Insurance premium paid for stock of raw materials & WIP	36,000	
	Salary paid to supervisors	1,26,000	
	Expenses paid for pollution control and engineering & maintenance	26,600	6,07,900
	Gross factory cost		10,80,33,100
	Add: Opening value of W-I-P		9,20,000
	Less: Closing value of W-I-P		(8,70,000)
	Factory Cost		10,80,83,100

(v)	Quality control cost: Expenses paid for quality control check activities	19,600	
	Salary paid to quality control staffs	96,200	1,15,800
(vi)	Research & development cost paid for improvement in production process		18,200
(vii)	Administration cost related with production: -Expenses paid for administration of factory work	1,18,600	
	-Salary paid to Production control manager	9,60,000	10,78,600
(viii)	Less: Realisable value on sale of scrap and waste		(86,000)
(ix)	Add: Primary packing cost Cost of Production		96,000
	Add: Opening stock of finished goods		11,00,000
	Less: Closing stock of finished goods		(18,00,000)
	Cost of Goods Sold		10,86,05,700
(x)	Administrative overheads: Depreciation on office building	56,000	
	Repairs & Maintenance paid for vehicles used by directors	19,600	
	Salary paid to Manager- Finance & Accounts	9,18,000	
	Salary paid to General Manager	12,56,000	
	Fee paid to auditors	1,80,000	
	Fee paid to legal advisors	1,20,000	
	Fee paid to independent directors	2,20,000	27,69,600

(xi)	Selling overheads: Repairs & Maintenance paid for sales office building Salary paid to Manager- Sales & Marketing Performance bonus paid to sales staffs	18,000 10,12,000 1,80,000	12,10,000
(xii)	Distribution overheads: Depreciation on delivery vehicles	86,000	
(xiii)	Packing cost paid for re-distribution of finished goods	1,12,000	1,98,000
(xiv)	Interest and finance charges paid		7,20,000
	Cost of Sales		11,35,03,300

Note:

GST paid on purchase of raw materials would not be part of cost of materials as it is eligible for input tax credit.

SUMMARY

- ◆ **Cost Sheet:** A Cost Sheet or Cost Statement is "a document which provides a detailed cost information. In a typical cost sheet, cost information are presented on the basis of functional classification. However, other classification may also be adopted as per the requirements of users of the information."
- ◆ **Direct Expenses:** Expenses other than direct material cost and direct employee cost, which are incurred to manufacture a product or for provision of service and can be directly traced in an economically feasible manner to a cost object.
- ◆ **Prime Cost:** Prime cost represents the total of direct materials costs, direct employee (labour) costs and direct expenses.
- ◆ **Cost of Production:** Cost of production consists of cost of materials consumed, direct employee (labour) costs, direct expenses, production overheads, quality control costs, primary packing cost, R&D and administration cost relating to production.

- ◆ **Primary Packing Cost:** Cost incurred on packing materials which are essential to hold and preserve the product for further processing or its use by consumer.
- ◆ **Secondary Packing Cost:** Cost incurred on packing materials which is used to store, transport, and promote the product.
- ◆ **Cost of Goods Sold:** Cost of production adjusted with opening and closing inventories of finished goods.
- ◆ **Administrative overheads:** Cost incurred of all activities relating to general management and administration of an entity.
- ◆ **Marketing overheads:** Marketing overheads comprise of selling overheads and distribution overheads.
- ◆ **Selling Overheads:** Expenses related to sale of products or services.
- ◆ **Distribution overheads:** Costs incurred in handling a product or service from the time it is ready to dispatch or delivery until it reaches the ultimate consumer.
- ◆ **Cost of Sales:** It is the total cost of a product incurred to make the product available to the customer or consumer. It is the aggregate of cost of goods sold, administrative costs, marketing costs and other separate line items of cost which could not form part of cost of production.

TEST YOUR KNOWLEDGE

Multiple Choice Questions (MCQs)

1. *Generally, for the purpose of cost sheet preparation, costs are classified on the basis of:*
 - (a) *Functions*
 - (b) *Variability*
 - (c) *Relevance*
 - (d) *Nature*

2. Which of the following does not form part of prime cost:
 - (a) Cost of packing
 - (b) Cost of transportation paid to bring materials to factory
 - (c) GST paid on raw materials (input credit cannot be claimed)
 - (d) Overtime premium paid to workers.
3. A Ltd. received an order, for which it purchased a special frame for manufacturing, it is a part of:
 - (a) Direct Materials
 - (b) Direct expenses
 - (c) Factory Overheads
 - (d) Administration Overheads
4. Salary paid to plant supervisor is a part of
 - (a) Direct expenses
 - (b) Factory overheads
 - (c) Quality control cost
 - (d) Administration cost
5. Depreciation of director's laptop is treated as a part of:
 - (a) Administration Overheads
 - (b) Factory Overheads
 - (c) Direct Expenses
 - (d) Research & Development cost.
6. A manufacture has set-up a lab for testing of products for compliance with standards, salary of this lab staffs are part of:
 - (a) Works overheads
 - (b) Quality Control Cost
 - (c) Direct Expenses
 - (d) Research & Development Cost.

7. Audit fees paid to auditors is part of:
 - (a) Administration Cost
 - (b) Production cost
 - (c) Selling & Distribution cost
 - (d) Not shown in cost sheet.
8. Salary paid to factory store staff is part of:
 - (a) Factory overheads
 - (b) Production Cost
 - (c) Direct Employee cost
 - (d) Direct Material Cost.
9. Canteen expenses for factory workers are part of:
 - (a) Factory overhead
 - (b) Administration Cost
 - (c) Marketing cost
 - (d) None of the above.
10. A company pays royalty to State Government on the basis of production, it is treated as:
 - (a) Direct Material Cost
 - (b) Factory Overheads
 - (c) Direct Expenses
 - (d) Administration cost.

Theoretical Questions

1. DESCRIBE how costs are classified on the basis of function.
2. EXPLAIN the treatment of administration overheads.
3. STATE the advantages of a cost sheet.

Practical Problems

1. The books of Adarsh Manufacturing Company present the following data for the month of April:

Direct labour cost ₹ 17,500 being 175% of works overheads.

Cost of goods sold excluding administrative expenses ₹ 56,000.

Inventory accounts showed the following opening and closing balances:

	April 1 (₹)	April 30 (₹)
Raw materials	8,000	10,600
Work-in-progress	10,500	14,500
Finished goods	17,600	19,000

Other data are:

	(₹)
Selling expenses	3,500
General and administration expenses	2,500
Sales for the month	75,000

You are required to:

- (i) FIND out the value of materials purchased.
 - (ii) PREPARE a cost statement showing the various elements of cost and also the profit earned.
2. From the following particulars, you are required to PREPARE monthly cost sheet of Aditya Industries:

	(₹)
Opening Inventories:	
- Raw materials	12,00,000
- Work-in-process	18,00,000
- Finished goods (10,000 units)	9,60,000

<i>Closing Inventories:</i>	
- Raw materials	14,00,000
- Work-in-process	16,04,000
- Finished goods	?
<i>Raw materials purchased</i>	1,44,00,000
<i>GST paid on raw materials purchased (ITC available)</i>	7,20,000
<i>Wages paid to production workers</i>	36,64,000
<i>Expenses paid for utilities</i>	1,45,600
<i>Office and administration expenses paid</i>	26,52,000
<i>Travelling allowance paid to office staffs</i>	1,21,000
<i>Selling expenses</i>	6,46,000

Machine hours worked- 21,600 hours

Machine hour rate- ₹8.00 per hour

Units sold- 1,60,000

Units produced- 1,94,000

Desired profit- 15% on sales

3. A Ltd. Co. has capacity to produce 1,00,000 units of a product every month. Its works cost at varying levels of production is as under:

Level	Works cost per unit (₹)
10%	400
20%	390
30%	380
40%	370
50%	360
60%	350
70%	340
80%	330
90%	320
100%	310

Its fixed administration expenses amount to ₹1,50,000 and fixed marketing expenses amount to ₹2,50,000 per month respectively. The variable distribution cost amounts to ₹30 per unit.

It can sell 100% of its output at ₹500 per unit provided it incurs the following further expenditure:

- (a) it gives gift items costing ₹30 per unit of sale;
- (b) it has lucky draws every month giving the first prize of ₹ 50,000; 2nd prize of ₹ 25,000, 3rd prize of ₹ 10,000 and three consolation prizes of ₹ 5,000 each to customers buying the product.
- (c) it spends ₹1,00,000 on refreshments served every month to its customers;
- (d) it sponsors a television programme every week at a cost of ₹ 20,00,000 per month.

It can market 30% of its output at ₹550 per unit without incurring any of the expenses referred to in (a) to (d) above.

PREPARE a cost sheet for the month showing total cost and profit at 30% and 100% capacity level.

4. The following figures are extracted from the Trial Balance of G.K Co. on 31st March:

	Dr.	Cr.
	(₹)	(₹)
<i>Inventories:</i>		
<i>Finished Stock</i>	80,000	
<i>Raw Materials</i>	1,40,000	
<i>Work-in-Process</i>	2,00,000	
<i>Office Appliances</i>	17,400	
<i>Plant & Machinery</i>	4,60,500	
<i>Building</i>	2,00,000	

<i>Sales</i>		7,68,000
<i>Sales Return and Rebates</i>	14,000	
<i>Materials Purchased</i>	3,20,000	
<i>Freight incurred on Materials</i>	16,000	
<i>Purchase Returns</i>		4,800
<i>Direct employee cost</i>	1,60,000	
<i>Indirect employee cost</i>	18,000	
<i>Factory Supervision</i>	10,000	
<i>Repairs and factory up-keeping expenses</i>	14,000	
<i>Heat, Light and Power</i>	65,000	
<i>Rates and Taxes</i>	6,300	
<i>Miscellaneous Factory Expenses</i>	18,700	
<i>Sales Commission</i>	33,600	
<i>Sales Travelling</i>	11,000	
<i>Sales Promotion</i>	22,500	
<i>Distribution Deptt.—Salaries and Expenses</i>	18,000	
<i>Office Salaries and Expenses</i>	8,600	
<i>Interest on Borrowed Funds</i>	2,000	

Further details are available as follows:

(i) *Closing Inventories:*

<i>Finished Goods</i>	1,15,000
<i>Raw Materials</i>	1,80,000
<i>Work-in-Process</i>	1,92,000

(ii) *Outstanding expenses on:*

<i>Direct employee cost</i>	8,000
<i>Indirect employee cost</i>	1,200
<i>Interest on Borrowed Funds</i>	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 G.K Co. for the year ended 31st March along with supporting schedules of:

- (i) Cost of Sales.
- (ii) Selling and Distribution Expenses.
- (iii) Administration Expenses

Case Scenarios

- M Ltd. is producing a single product and may expand into product diversification in next one to two years. M Ltd. is amongst a labour-intensive company where majority of processes are done manually. Employee cost is a major cost element in the total cost of the company. The company conventionally uses performance parameters Earnings per manshift (EMS) to measure cost paid to an employee for a shift of 8 hours, and Output per manshift (OMS) to measure an employee's output in a shift of 8 hours.

The Chief Manager (Finance) of the company has emailed you few information related to the last month. The email contains the following data related to the last month:

During the last month, the company has produced 2,34,000 tonnes of output. Expenditures for the last months are:

- (i) Raw materials consumed ₹50,00,000
- (ii) Power consumed 13,000 Kwh @ ₹8 per Kwh to run the machines for production.
- (iii) Diesels consumed 2,000 litres @ ₹93 per litre to run power generator used as alternative or backup for power cuts.
- (iv) Wages & salary paid – ₹6,40,00,000
- (v) Gratuity & leave encashment paid – ₹64,20,000
- (vi) Hiring charges paid for HEMM- ₹30,00,000. HEMM are directly used in production.
- (vii) Hiring charges paid for cars used for official purpose – ₹66,000
- (viii) Reimbursement of diesel cost for the cars – ₹22,000
- (ix) The hiring of cars attracts GST under RCM @5% without credit.
- (x) Maintenance cost paid for weighing bridge (used for weighing of final goods at the time of dispatch) – ₹12,000
- (xi) AMC cost of CCTV installed at weighing bridge (used for weighing of final goods at the time of dispatch) and factory premises is ₹8,000 and ₹18,000 per month respectively.
- (xii) TA/ DA and hotel bill paid for sales manager- ₹36,000
- (xiii) The company has 1,800 employees works for 26 days in a month.

You are asked to calculate the followings:

- i. What is the amount of prime cost incurred during the last month:
 - (a) ₹7,54,20,000
 - (b) ₹7,57,10,000
 - (c) ₹7,56,06,000
 - (d) ₹7,87,10,000
- ii. What is the total and per shift cost of production for last month:
 - (a) ₹7,87,10,000 and ₹336.37 respectively
 - (b) ₹7,87,10,000 and ₹1,681.84 respectively

- (c) ₹7,87,28,000 and ₹1,682.22 respectively
 (d) ₹7,87,28,000 and ₹336.44 respectively
- iii. What is the value of administrative cost incurred during the last month:
 (a) ₹92,400
 (b) ₹88,000
 (c) ₹1,48,400
 (d) ₹1,44,000
- iv. What is the value of selling and distribution cost and total cost of sales:
 (a) ₹36,000 & ₹7,88,76,400 respectively
 (b) ₹56,000 & ₹7,88,76,400 respectively
 (c) ₹36,000 & ₹7,88,72,000 respectively
 (d) ₹56,000 & ₹7,88,72,000 respectively
- v. What is the value EMS and OMS for the last month:
 (a) ₹1,504.70 & 5 tonnes respectively
 (b) ₹1,367.52 & 5 tonnes respectively
 (c) ₹1,504.70 & 4.37 tonnes respectively
 (d) ₹1,367.52 & 4.37 tonnes respectively

ANSWERS

Answers to the MCQs

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

Answers to the Theoretical Questions

1. Please refer paragraph 2
2. Please refer paragraph 3.4

3. Please refer paragraph 4.3

Answers to the Practical Problems

1. (i) Computation of the value of materials purchased

To find out the value of materials purchased, reverse calculations from the given data can be presented as below:

Particulars	(₹)
Cost of goods sold	56,000
Add: Closing stock of finished goods	19,000
Less: Opening stock of finished goods	(17,600)
Cost of production	57,400
Add: Closing stock of work-in-progress	14,500
Less: Opening stock of work-in-progress	(10,500)
Works cost	61,400
Less: Factory overheads: $\left(\frac{\text{₹}17,500 \times 100}{175} \right)$	(10,000)
Prime cost	51,400
Less: Direct labour	(17,500)
Raw material consumed	33,900
Add: Closing stock of raw materials	10,600
Raw materials available	44,500
Less: Opening stock of raw materials	(8,000)
Value of materials purchased	36,500

(ii) Cost statement

	(₹)
Raw material consumed [Refer to statement (i) above]	33,900
Add: Direct labour cost	17,500
Prime cost	51,400
Add: Factory overheads	10,000
Works cost	61,400
Add: Opening work-in-progress	10,500
Less: Closing work-in-progress	(14,500)
Cost of production	57,400
Add: Opening stock of finished goods	17,600
Less: Closing stock of finished goods	(19,000)
Cost of goods sold	56,000
Add: General and administration expenses	2,500
Add: Selling expenses	3,500
Cost of sales	62,000
Profit (Balance figure ₹ 75,000 – ₹ 62,000)	13,000
Sales	75,000

2. Cost sheet of Aditya Industries for month of.....

Units produced- 1,94,000

Units sold- 1,60,000

Particulars	(₹)	Cost per unit (₹)
Raw materials purchased	1,44,00,000	
Add: Opening value of raw materials	12,00,000	
Less: Closing value of raw materials	(14,00,000)	
Materials consumed	1,42,00,000	73.19

Wages paid to production workers	36,64,000	18.89
Expenses paid for utilities	1,45,600	0.75
Prime Cost	1,80,09,600	92.83
Factory overheads ($\text{₹ } 8 \times 21,600$ hours)	1,72,800	
Add: Opening value of W-I-P	18,00,000	
Less: Closing value of W-I-P	(16,04,000)	
Cost of Production	1,83,78,400	94.73
Add: Value of opening finished stock	9,60,000	
Less: Value of closing finished stock ($\text{₹ } 94.73 \times 44,000$)	(41,68,120)	
Cost of Goods Sold	1,51,70,280	94.81
Office and administration expenses paid	26,52,000	16.58
Travelling allowance paid to office staffs	1,21,000	0.75
Selling expenses	6,46,000	4.04
Cost of Sales	1,85,89,280	116.18
Add: Profit	32,80,461	20.50
	2,18,69,741	136.68

3. Cost Sheet (For the month)

Level of Capacity	30%		100%	
	30,000 units		1,00,000 units	
	Per unit (₹)	Total (₹)	Per unit (₹)	Total (₹)
Works Cost	380.00	1,14,00,000	310.00	3,10,00,000
Add: Fixed administration expenses	5.00	1,50,000	1.50	1,50,000

Add: Fixed marketing expenses	8.33	2,50,000	2.50	2,50,000
Add: Variable distribution cost	30.00	9,00,000	30.00	30,00,000
Add: Special Costs:				
- Gift items costs	—	—	30.00	30,00,000
- Customers' prizes*	—	—	1.00	1,00,000
- Refreshments	—	—	1.00	1,00,000
- Television programme sponsorship cost	—	—	20.00	20,00,000
Cost of sales	423.33	1,27,00,000	396.00	3,96,00,000
Profit (Balancing figure)	126.67	38,00,000	104.00	1,04,00,000
Sales revenue	550.00	1,65,00,000	500.00	5,00,00,000

*Customers' prize cost:

	Amount (₹)
1 st Prize	50,000
2 nd Prize	25,000
3 rd Prize	10,000
Consolation Prizes (3 × ₹5,000)	15,000
Total	1,00,000

4. Profit and Loss Statement of G.K Co. for the year ended 31st March

	(₹)	(₹)
Gross Sales	7,68,000	
Less: Returns and rebates	(14,000)	7,54,000
Less: Cost of Sales (excluding interest on borrowed funds) [Refer to Schedule (i)]		(7,14,020)
Net Operating Profit		39,980
Less: Interest on borrowed funds (2,000+2,000)		(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 up-keeping expenses	14,000	
Heat, Light and Power (₹65,000 × 8/10)	52,000	
Rates and Taxes (₹6,300 × 2/3 rd)	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 (excluding interest on borrowed funds)		7,14,020

Alternatively, Interest on borrowed funds of ₹ 4,000 (₹ 2,000 + ₹ 2,000) may be added to arrive at cost of sales.

(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

Answers to the Case Scenarios

1.

i.	(d)	ii.	(c)	iii.	(a)	iv.	(b)	v.	(a)
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i. d Please refer cost sheet below for prime cost

ii. c Please refer cost sheet below for cost of production

Cost of production per manshift =

Cost of production ÷ Total manshift

$$\text{₹ } 7,87,28,000 \div 46,800 = \text{₹ } 1,682.22$$

iii. a Car hire charges including GST @5%, please refer the cost sheet

iv. b Selling and distribution cost includes the following:

Maintenance cost for weighing bridge	12,000
AMC cost of CCTV installed at weigh bridge	8,000
TA/ DA & hotel bill of sales manager	36,000
	56,000

For Cost of Sale please refer the cost sheet

v. a Manshift = 1,800 employees × 26 days = 46,800 manshifts

Computation of earnings per manshift (EMS):

$$\text{EMS} = \frac{\text{Total employee benefits paid}}{\text{Manshift}}$$

$$= \frac{\text{₹ } 7,04,20,000}{46,800} = \text{₹ } 1504.70$$

Computation of Output per manshift (OMS):

$$\text{OMS} = \frac{\text{Total Output / Production}}{\text{Manshift}}$$

$$\frac{2,34,000 \text{ Tonne}}{46,800} = 5 \text{ tonnes}$$

Workings

Cost Sheet of M Ltd. for the last month

Particulars	Amount (₹)	Amount (₹)
Materials consumed		50,00,000
Wages & Salary	6,40,00,000	
Gratuity & leave encashment	64,20,000	7,04,20,000
Power cost (13,000 kwh × ₹ 8)	1,04,000	
Diesel cost (2,000 ltr × ₹ 93)	1,86,000	2,90,000
HEMM hiring charges		30,00,000
Prime Cost		7,87,10,000
AMC cost of CCTV installed at factory premises		18,000
Cost of Production/ Cost of Goods Sold		7,87,28,000
Hiring charges of cars	66,000	
Reimbursement of diesel cost	22,000	
	88,000	
Add: GST @5% on RCM basis	4,400	92,400
Maintenance cost for weighing bridge	12,000	
AMC cost of CCTV installed at weigh bridge	8,000	20,000
TA/ DA & hotel bill of sales manager		36,000
Cost of Sales		7,88,76,400

