

## Cost Accounting- T.Y. B. Com-Semester V

### Chp 5- Cost Sheet

#### Illustrations and Solutions

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#### Illustration -1

Bombay Manufacturing company submits the following information on 31-3-2019

Particulars	Rupees
Sales for the year	2,75,000
Inventories at the beginning of the year-	
- Raw Materials	3,000
- Work in Progress	4,000
- Finished Goods	1,10,000
Purchase of materials	65,000
Direct Labour	6,000
Inventories at the end of the year -	
- Raw Materials	4,000
- Work in Progress	6,000
- Finished Goods	8,000
Other expenses for the year –	
Selling expenses	27,500
Administrative expenses	13,000
Factory overheads	40,000
Prepare Statement of cost	

#### Solution:

#### Bombay Manufacturing Company Statement of cost for the year ended 31-3-2019

	Rs.	Rs.
Materials consumed		
Opening stock:	3,000	
+ Purchases	110000	
	113000	
- Closing stock	4000	
		109000
Direct Labour		65000
Direct Expenses		6000
<b>Prime cost</b>		<b>180000</b>
Factory overheads	40000	
+ Work in Progress (Opening)	4000	
	44000	

- Work in Progress (Closing)	6000	38000
<b>Works cost</b>		<b>2,18,000</b>
Administrative expenses		13,000
<b>Cost of Production</b>		<b>2,31,000</b>
+ Opening Stock of finished goods		7,000
		2,30,000
- Closing Stock of finished goods		8,000
<b>Cost of Goods Sold</b>		<b>2,30,000</b>
Selling & Distribution expenses		27,500
<b>Cost of Sales</b>		<b>2,57,500</b>
Profit (Bal. Fig)		17,500
<b>Sales</b>		<b>2,75,000</b>

### Illustration -2

From the following information prepare a statement showing

- (i) Prime cost (ii) Works cost (iii) Cost of Production (iv) Cost of Sales  
(v) Net profit of X Ltd. which produced and sold 1000 units in June 2019.

	Rs.
<b>Opening Stock:</b>	
Raw Materials	24,000
Finished goods	16,000
<b>Closing stock:</b>	
Raw Materials	20,000
Finished goods	15,000
Purchase of Raw Materials	80,000
Sales	2,00,000
Direct Wages	35,000
Factory Wages	2,000
Carriage Inward	2,000
Carriage Outward	1,000
Factory Expenses	4,000
Office Salaries	15,000
Office Expenses	12,000
Factory Rent & Rates	2,500
Depreciation - Machinery	2,500
Bad Debts	1,500

### Solution

#### Ltd. Cost Statement for June, 2019

Particulars	Rs.	Total Cost Rs.	Cost per Unit Rs.
Opening stock of materials	24,000		
Add: Purchase of materials	<u>80,000</u>		

Add: Carriage Inward	2,000		
	<u>1,06,000</u>		
Less: Closing stock of materials	20,000		
Cost of Materials consumed		86,000	86.00
Direct Wages		35,000	35.00
<b>(i) Prime Cost</b>		<u>121,000</u>	<u>121.00</u>
Factory overheads:			
Factory Wages	2,000		
Factory expenses	4,000		
Factory Rent & Rates	2,500		
Depreciation	<u>2,500</u>		
		11,000	11.00
<b>(ii) Works Cost</b>		<u>1,32,000</u>	<u>132.00</u>
Administrative Overheads:			
Office Salaries	15,000		
Office Expenses	12,000	27,000	27.00
<b>(iii) Cost of Production</b>		<u>1,59,000</u>	<u>159.00</u>
Selling & Distribution Overheads:			
Carriage Outward	1,000		
Bad Debts	<u>1,500</u>		
		2,500	2.50
Total Cost		<u>1,61,500</u>	<u>161.50</u>
Add: Opening Stock of finished goods		16,000	
		<u>1,77,500</u>	
Less: Closing Stock of finished goods		15,000	
<b>(iv) Cost of Sales</b>		<u>1,62,500</u>	<u>162.50</u>
<b>(v) Net Profit (Bal.Fig)</b>		<u>37,500</u>	<u>37.50</u>
Sales		<u>2,00,000</u>	<u>200.00</u>

### Illustration – 3

NRC Ltd., manufactured and sold 1000 Radio sets during the year 2019. The summarized accounts are given below:

<b>Mfg. / Trading &amp; Profit &amp; Loss A/c</b>			
	Rs.		Rs.
To Cost of Materials	40,000	By Sales	2,00,000
To Direct Wages	60,000		
To Manufacturing Exp.	25,000		
To Gross Profit	<u>75,000</u>		

	<u>2,00,000</u>		<u>2,00,000</u>
To Salaries	30,000	By Gross Profit	75,000
To Rent, Rates & Taxes	5,000		
To General Expenses	10,000		
To Selling & Distribution Exp.	15,000		
To Net Profit	15,000		
	<u>75,000</u>		<u>75,000</u>

It is estimated that output and sales will be 1200 Radio Sets in the year 2020. Prices of Materials will rise by 20% on the previous year's level. Wages per unit will rise by 5% Manufacturing expenses will rise in proportion to the combined cost of materials and wages. Selling and distribution expenses per unit will remain unchanged. Other expenses will remain unaffected by the rise in output. Prepare cost sheet showing the price at which the Radio Sets should be sold so as to earn a profit of 20% on the selling price.

### Solution

#### COST SHEET

	2019		2020	
	Total	Per Unit	Total	Per Unit
	Rs.	Rs.	Rs.	Rs.
Direct Materials	40,000	40.00	57,600	48.00
Direct Wages	60,000	60.00	75,600	63.00
Prime Cost	1,00,000	100.00	1,33,200	111.00
Manufacturing Expenses	25,000	25.00	33,300	28.00
Works Cost	1,25,000	125.00	1,66,500	139.00
Salaries	30,000	30.00	30,000	25.00
Rent, Rates Insurance	5,000	5.00	5,000	4.00
General Expenses	10,000	10.00	10,000	8.00
Cost of Production	1,70,000	170.00	2,11,500	176.00
Selling & Distribution Expenses	15,000	15.00	18,000	15.00
Cost of Sales	1,85,000	185.00	2,29,500	191.00
Net Profit	15,000	15.00	57,275	48.00
Sales	2,00,000	200.00	2,86,775	239.00

#### Illustration – 4.:

A factory can produce 60,000 units per year at its 100% capacity. The estimated cost of production is as under:

Direct Material- Rs. 3 per unit  
Direct Labour- Rs. 2 per unit  
Indirect Expenses-  
Fixed - Rs. 1,50,000 per year  
Variable- Rs. 5 per unit  
Semi- variable- Rs.50,000 per year up to 50% capacity  
and an extra expense of Rs.10,000 for every 25%  
Increase in capacity or part thereof.

The factory produces only against order and not for stock. If the Production program of the factory is as indicated below and the management desires to ensure a Profit of Rs. 1,00,000 for the year, work out the average selling price at which per unit should be quoted:

First 3 months of the year 50% of capacity remaining 9 months 80% of the capacity. Ignore selling, distribution and administration overheads.

#### Solution:

Particular	First 3 months	9 Months	Total
	(7500 Units)	(36000 Units)	
	Rs.	Rs.	
Direct Material	22500	108000	130500
Direct Labour	15000	72000	87000
	-----	-----	-----
	37500	1,80,000	2,17,500
<b>Add: Indirect Expenses:</b>			
Fixed (1: 3)	37500	112500	150000
Variable @ Rs.5 p.u.	37500	180000	217500
<b>Semi –variable</b>			
For 3 months	12500	-----	-----
@ Rs.50,000 p.a.			
For 9 months			
@ Rs.70,000 p.a.	--	52500	65000
	-----	-----	-----
Total Cost	125000	525000	650000
Profit	--	-	100000
			-----
Sales			750000
			-----

### Illustration -5

The following figures have been taken from the books of M Ltd. as on 31.12.2019

Stock of Raw Materials on 1.1.2019	Rs.	35,000
Stock of Raw Materials on 31.12.2019	Rs.	5,000
Purchase of Materials	Rs.	50,000
Factory Wages	Rs.	45,000
Factory Expenses	Rs.	17,500
Establishment Expenses	Rs.	10,000
Finished Stock on 1.1.2019	Rs.	15,000
Finished stock on 31.12.2019	Rs.	7,500
Sales	Rs.	2,00,000

The Company manufactured 4000 units during the year 2019. The company is required to quote for the price for supply of 1000 units during the year 2020. The cost of material will increase by 15% and factory labour will cost more by 10% in the year 2020. Prepare a statement showing the price to be quoted to give the same percentage of net profit on sales as was realized during 2019.

### Solution

#### a) Cost Sheet for the year 2019

	Rs.	Rs.
Opening Stock of Materials: 35,000		
+ Purchases 50,000		
<u>85,000</u>		
- Closing stock of Materials 5,000		
<b>Materials Consumed</b>	80,000	20.00
Factory Wages	45,000	11.25
<b>Prime Cost</b>	1,25,000	31.25
Factory Expenses	17,500	4.37
<b>Works Cost</b>	1,42,500	35.62
Establishment Expenses	10,000	2.50
<b>Cost of Production</b>	1,52,500	38.12
Add: Opening Stock of finished goods 15,000	15,000	
	<u>1,67,500</u>	
Less: Closing stock of finished goods 7,500	7,500	
<b>Cost of Sales</b>	1,60,000	40
Profit	40,000	10
Sales	2,00,000	<u>50</u>

**b) Statement showing quotation Price for 1000 units**

		Rs.
Materials (20 x 1000) =	20,000	
+ 15% increase	3,000	23,000
Factory wages (11.25 x 1000) =	11,250	
10% increase	1,125	12,375
<b>Prime Cost</b>		35,375
Factory Expenses (4.375 x 1000)		4,375
<b>Works Cost</b>		39,750
Establishment Expenses (2.50 x 1000)		2,500
<b>Total Cost</b>		42,250
Profit (20% on Sale i.e., 25% of Cost)		10,563
Sales		<u>52,813</u>

**Note:** Percentage of Profit on sales earned during the year 2019 is 20%

$$\frac{40000}{200000} \times 100 = 20\%$$

**Illustration – 6.**

In a factory two types of T.V sets are manufactured i.e. black & white + colour. From the following particulars prepare a statement showing cost and profit per T.V Set sold. There is no opening or closing stock.

	B & W Rs.	Colour Rs.
Materials	2,73,000	10,80,000
Labour	1,56,000	6,20,000

Works overhead is charged at 60% of Prime cost and Office overhead is taken at 20% at Works cost. The selling price of B & W is Rs.600 and that of colour is 10000. During the period 200 B & W and 400 colour T.V. sets were sold. The selling expenses are Rs. 50 per T.V. Set.

## Solution

### B) Statement of Cost and Profit

Particulars	B & W	Colour	
	Rs.	Rs.	Per Unit
Materials	273000	10,80,000	2700
Labour	156000	6,20,000	1550
Prime Cost	429000	17,00,000	4250
Add: Work Overheads (60% of Prime Cost)	257400	10,20,000	2550
Works Cost	686400	27,20,000	6800
Add: Office overheads (20% of Works cost)	137280	5,44,000	1360
Cost of Production	823680	32,64,000	8160
Add: Selling Expenses	10000	20,000	50
Cost of Sales	833680	32,84,000	8210
Profit (Bal. Fig)	366320	7,16,000	1790
Sales	1,20,000	40,00,000	10,000

### Illustration – 7.

From the books of accounts of M/s. Tejas Enterprises, following details have been extracted for the year ending 31st Dec, 2018:

Particulars	Amount (Rs.)
Opening stock of raw material	2,88,000
Closing stock of raw material	3,00,000
Material purchased during the year	9,42,000
Direct labour cost	4,43,000
Indirect wages	54,000
Salaries to office staff	2,12,000



Freight outward	43,000
Repairs for plant and machinery	21,000
Factory rent and taxes	55,000
Office rent and taxes	32,000
Distribution expenses	76,000
Salesman salaries and commission	54,000
Manager's salary (40% of his time used in factory & rest in office)	60,000
Factory electricity charges	25,000
Office telephone expenses	5,000
Opening stock of finished goods	2,03,000
Closing stock of finished goods	1,12,000
Depreciation of office furniture	13,000

You are required to prepare cost sheet for the firm from the above given details.

Solution:

M/s. Tejas Enterprises  
Cost Sheet  
For the year ending 31st December 2018

Particulars	Amount (Rs.)	Amount (Rs.)
(1) Direct Materials:		
Purchases during the year	9,42,000	
Add: Opening stock of raw material	2,88,000	
Less: Closing stock of raw material	<u>(300,000)</u>	
Direct Material Consumed	9,30,000	9,30,000
(2) Direct labour cost		<u>4,43,000</u>
(3) Prime Cost (1+2)		13,73,000
Add: Factory Overheads		
Indirect wages	54,000	

Repairs for plant and machinery	21,000	
Factory rent and taxes	55,000	
Manager's salary – Factory	24,000	
Factory electricity charges	<u>25,000</u>	
(4) Total Factory Overheads	1,79,000	<u>1,79,000</u>
(5) Factory/Work Cost (3+4)		15,52,000
Add: Office and Administrative overheads		
Salaries to office staff	2,12,000	
Office rent and taxes	32,000	
Manager's salary – Office	36,000	
Office telephone expenses	5,000	
Depreciation of office furniture	<u>13,000</u>	
(6) Total Office and Administrative overheads	2,98,000	<u>2,98,000</u>
(7) Cost of Production/Office Cost (5+6)		18,50,000
(8) Add: Opening stock of finished goods		2,03,000
(9) Less: Closing stock of finished goods		<u>(112,000)</u>
(10) Cost of Goods Sold		19,41,000
Add: Selling and Distribution Overheads		
Freight outward	43,000	
Distribution expenses	76,000	
Salesman salaries and commission	<u>54,000</u>	
(11) Total Selling and Distribution Overheads	1,73,000	<u>1,73,000</u>
(12) Total Cost/Cost of Sales (10+11)		<u>21,14,000</u>

### Illustration – 8

Prepare a cost sheet to show the total cost and cost per unit of goods manufactured by M/s. Corona Enterprises for the month of January 2015. Also, find out the cost of sales.

Particulars	Amount (Rs.)
Stock of raw material (1.1.15)	4,000
Stock of raw material (31.1.15)	5,500
Raw material purchased	29,000
Manufacturing wages	8,000
Depreciation on plant	1,500
Factory rent and rates	4,000

Office rent	1,000
General expenses	1,200
Sales discount	1,000
Advertising expenses	5,000

The number of units produced during the month was 4,000. The stock of finished goods was 300 and 400 units on 1.1.15 and 31.1.15 respectively. The total cost of units in hand on 1.1.15 was Rs. 3,900. All these had been sold during the month.

Solution:

M/s. Corona Enterprises  
Cost Sheet  
For the month ending 31st January 2015

Particulars	Amount (Rs.)	Amount (Rs.)	Per Unit (Rs.)
(A) Purchases during the year	29,000		
(B) Add: Opening stock of raw material	4,000		
(C) Less: Closing stock of raw material	<u>(5,500)</u>		
(D) Material Consumed (A+B-C)	27,500	27,500	6.87
(E) Manufacturing wages		<u>8,000</u>	<u>2.00</u>
(F) Prime Cost (D+E)		35,500	8.87
Add: Factory Overheads			
Depreciation on plant	1,500		
Factory rent and rates	<u>4,000</u>		
(G) Total Factory Overheads	5,500	<u>5,500</u>	<u>1.37</u>
(H) Factory/Work Cost (F+G)		41,000	10.25
Add: Office and Administrative Overheads			
Office rent	1,000		
General expenses	<u>1,200</u>		
(I) Total Office and Administrative Overheads	2,200	<u>2,200</u>	<u>0.55</u>
(J) Cost of Production/Office Cost (H+I)		43,200	10.8
(K) Add: Opening finished stock		3,900	
(L) Less: Closing finished stock (10.8*400)		<u>(4,320)</u>	
(M) Cost of Goods Sold (J+K-L)		42,780	10.70
Add: Selling and Distribution Overheads			
Sales Discount	1,000		
Advertising Expenses	<u>5,000</u>		
(N) Total Selling and Distribution Overheads	6,000	<u>6,000</u>	1.5
(O) Total Cost/Cost of Sales (M+N)		48,780	12.20

