

Cost Sheet, Tenders and Quotations

[Ans : Prime cost : Rs. 1,27,000; Works cost : Rs. 1,44,000;
 Cost of production : Rs. 1,61,000; Cost of sales : Rs. 1,89,000;
 Profit : Rs. 37,800]

(C) Cost Sheet – With stocks of work-in-progress and finished goods

24. From the following particulars of the AB Ltd., prepare a statement showing:

- (a) The cost of materials used
- (b) The works cost
- (c) The total cost
- (d) The percentage of works expenses to productive wages.

	Rs.
Stock of materials on 1st Jan. 2015	20,000
Stock of finished goods on 1st Jan. 2015	51,000
Purchase of raw materials	5,80,000
Productive wages	3,90,000
Sales of finished goods	12,10,000
Stock of raw materials on 31st Dec. 2015	25,000
Works overhead charges	86,000
Office and general expenses	70,000
Stock of finished goods on 31st Dec. 2015	50,000

[Bharathiyan B.com April 2021]

[Madras, B.C.S. Oct. 2003; (2 Times); B.Com. April 2000]

[Ans : (a) Rs. 5,75,000; (b) Rs. 10,51,000;
 (c) Rs. 11,22,000; (d) 22.05%]

25. From the following particulars of a manufacturing company prepare a statement showing:

- (a) Cost of materials used (b) Prime cost
- (c) Works cost
- (d) Percentage of works overhead to productive wages
- (e) Cost of production
- (f) Percentage of general overheads to works cost and
- (g) Net profit

	Rs.
Stock of materials on 1st Jan. 2019	20,000
Purchase of materials in January	5,50,000
Stock of finished goods on 1st January 2019	25,000
Productive wages	2,50,000
Finished goods sold	12,00,000
Works overhead charges	75,000
Office and general expenses	50,000
Stock of materials on 31st Jan. 2019	70,000
Stock of finished goods on 31st Jan. 2019	30,000

[Bharathiar, B.Sc (Business Accounting) Nov. 2007 (2 Times)]

[Madras, B.A. Corp., Sep. 1981]

[Ans : (a) Rs. 5,00,000; (b) Rs. 7,50,000; (c) Rs. 8,25,000;
 (d) 30% (e) 8,75,000; (f) 6.06%; (g) Rs. 3,30,000]

26. Draw a statement of cost from the following particulars:

	Rs.
Opening stock: Materials	2,00,000
Work-in-progress	60,000
Finished goods	5,000
Closing stock : Materials	1,80,000
Work-in-progress	50,000
Finished goods	15,000
Materials purchased	5,00,000
Direct wages	1,50,000
Manufacturing expenses	1,00,000
Sales	8,00,000
Selling and distribution expenses	20,000

[Madras B.Com April 2012] [Thiruvalluvar B.Com April 2012]

[Madras, B.Com (gen & AF) Nov. 2009; B.Com., April 2007; B.Com., April 2002 (Old) (1/2 Figs.); B.Com.

April 2001; B.Sc. (ICE) May 2000; B.Com. (ICE) May 1999]

[Ans : Materials consumed : Rs. 5,20,000; Prime cost : Rs. 6,70,000;
 Works cost : Rs. 7,80,000; Cost of production of goods sold :
 Rs. 7,70,000; Cost of sales : Rs. 7,90,000; Profit : Rs. 10,000]

Hint: Works cost is found after adjusting stocks of work-in-progress.

27. "X" is manufacturing refrigerators and the following details are furnished in respect of its factory operations for the year ended 31st December 2019.

	Rs.	Rs.
Work in progress in the beg.		
At prime cost	51,000	
Manufacturing expenses	15,000	66,000
Work in progress in the end		
At prime cost	45,000	
Manufacturing expenses	9,000	
Stock in beginning		54,000
Purchase of raw materials		2,25,000
Direct labour		4,77,000
Manufacturing expenses		1,71,000
Closing stock		84,000
		2,04,000

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On the basis of the above data, prepare a statement showing the cost of production.

[Madras, B.Com. Oct 2002]

[Ans : Cost of production : Rs. 7,65,000]

Hint: Stock should be taken as material stocks.

28. From the following details, prepare a comprehensive cost sheet.

Stock as on 1.4.2020

Stock as on 31.3.2021

	Raw materials	2,500
	Work-in-progress	1,200
	Finished Goods	1,000
	Raw materials	2,000
	Work-in-progress	1,100
	Finished goods	1,500

Purchase of raw materials

Rs. Sales during the year 12,000

during the year

4,000 Sales of scrap 1,000

Direct wages

1,800

Factory expenses

1,600

Office expenses

700

Selling & Distribution Expenses

800

Also compute:

(a) the percentage of works on cost to wages and

(b) the percentage of administrative overheads to works cost.

[Madras, BCS(ICE) May 2004]

[Ans : Profit : Rs. 4,000; Cost of sales : Rs. 8,000; (a) $33\frac{1}{3}\%$, (b) 10%]

Hint: Reduce sale of scrap from Factory Expenses.

29. From the following particulars, prepare a cost sheet showing the components of total cost and profit for the year ended 31-12-2009.

Particulars	1.1.2009	31.12.2009
	Rs.	Rs.
Cost of raw materials	30,000	25,000
Cost of work in progress	12,000	15,000
Cost of finished goods	60,000	55,000
		Rs.
Purchased of raw materials		4,50,000
Wages paid		2,30,000
Factory overheads		92,000
Administrative overheads		30,000
Selling and distribution overheads		20,000
Sales		9,00,000

[Bharathidasan B.Com April 2012]

[Thiruvalluvar B.Com., April/May 2010; Periyar, B.Com.,
B.Com(CA) Nov. 2005; Nov. 2603]

[Madras, B.Com., B.Com(AF) Nov. 2009; B.Com(CS) (ICE) Oct. 2008; B.C.A.,
B.Sc.(ICE) Oct. 2001; May 2001]

[Ans: Prime Cost: Rs. 6,85,000; works Cost: Rs. 7,74,000;
Cost of Production: Rs. 8,04,000; Cost of Sales: Rs. 8,29,000;
Profit: Rs. 71,000]

30. The Modern manufacturing company submits the following information on March 31, 2017:

	Rs.
Sales for the year	2,75,000
Inventories at the beginning of the year:	
Finished goods	7,000
Work-in-progress	4,000
Purchase of materials	1,10,000
Materials inventory: At the beginning of the year	3,000
At the end of the year	4,000
Direct labour	65,000
Factory overhead was 60% of direct labour cost	
Inventories at the end of the year:	
Work-in-progress	6,000
Finished goods	8,000
Other expenses for the year:	
Selling expenses	10% of sales
Administration expenses	5% of sales

Prepare a statement of cost.

[Madras, B.C.S.(ICE) May 2003;
Calicut, B.Com. April 1994]

[Ans : Material consumed : Rs. 1,09,000; Prime cost : Rs. 1,74,000;
Works cost : Rs. 2,11,000; Cost of production of goods produced:
Rs. 2,24,750; Cost of production of goods sold : Rs. 2,23,750;
Cost of sales : Rs. 2,51,250; Profit : Rs. 23,750]

31. From the following trading account of a concern, prepare a cost sheet showing the cost of materials used, prime cost, cost of goods sold and profit per unit:

Trading Account for the year ended 31st Dec. 2018:

Particulars	Rs.	Particulars	Rs.
To Stock :			
Finished goods	40,000	By Sales (3,000 units)	4,20,000
Raw materials	12,000	By Stock:	
To Purchases	1,20,000	Finished goods	35,000
		Raw materials	14,000

To Wages	2,00,000	
To Carriage	10,000	
To Gross profit	87,000	
	<hr/>	
	4,69,000	
		<hr/>
		4,69,000

[Bangalore, B.Com. April 1995]

[Ans : Cost of materials used : Rs. 1,28,000;

Prime cost : Rs. 3,28,000;

Cost of goods sold : Rs. 3,33,000; Profit per unit sold : Rs. 29]

32. From the following information, prepare a cost sheet for the month of December, 2020:

	Rs.
Stock on hand – 1st December 2020:	
Raw materials	25,000
Finished goods	17,300
Stock on hand – 31st December 2020:	
Raw materials	26,200
Finished goods	15,700
Purchases of raw materials	21,900
Carriage on purchases	1,100
Work-in-progress, 1-12-2020 at works cost	8,200
Work-in-progress, 31-12-2020 at works cost	9,100
Sale of finished goods	72,300
Direct wages	17,200
Non-productive wages	800
Direct expenses	1,200
Factory overheads	8,300
Administration overheads	3,200
Selling and distribution overheads	4,200

[Periyar B.Com Nov. 2015] [Madurai Kamaraj, M.Com. April 1991]

[Madras B.Com(CS) Nov. 2006 (Modified)]

[Ans : Raw materials consumed : Rs. 21,800; Prime cost : Rs. 40,200;

Works cost : Rs. 48,400; Cost of production of goods produced :

Rs. 51,600; Cost of production of goods sold : Rs. 53,200;

Cost of sales : Rs. 57,400; Profit : Rs. 14,900]

33. The following extracts of costing information related to commodity 'A' for the year ending 31.12.2016.

	Rs.
Purchase of raw materials	1,20,000
Work overheads	48,000
Direct wages	1,00,000
Carriage on purchases	1,440
Stock (1st July 2016)	
Raw materials	20,000
Finished products (1,000 tons)	16,000
Stock (31st Dec. 2016)	
Raw materials	22,240
Finished products (2,000 tons)	32,000
Work-in-progress (1st July 2016)	4,800
Work-in-progress (31st Dec. 2016)	16,000
Sales – Finished products	3,00,000

Selling and distribution overheads are Re. 1 per ton sold. 16,000 tons of commodity were produced during the period.

You are to ascertain (a) cost of raw materials used (b) cost of output for the period (c) cost of sales (d) net profit for the period and (e) net profit per ton of the commodity.

[Madras, BCA, B.Sc (ICE) Oct. 2009; B.Com. (ICE) May 2003; B.Com. Sep. 1994;

B.C.S. (ICE) Oct. 1999; B.A. Corp. March 1995]

[Ans : (a) Rs. 1,19,200; (b) 2,56,000; (c) Rs. 2,55,000;

(d) Rs. 45,000; (e) Rs. 3 per ton sold;

Selling overhead : Rs. 15,000

34. The following information were obtained from the costing records of a manufacturing concern for the month of March 2008:

	Rs.	1.3.2008 (Rs.)	31.3.2008 (Rs.)
Raw materials		1,00,000	1,23,500
Finished Goods		71,500	42,000
Work in progress		31,000	34,500
<i>Other Expenses:</i>			
Purchase of Raw Material	88,000		
Direct Wages	70,000		
Indirect Factory wages	2,500		
Work Expenses	37,000		
Administration expenses	13,000		
Sale of Scrap	2,000		
Selling and Distribution expenses	15,000		
Sales	2,84,000		

Rs.
1,20,000
48,000
1,00,000
1,440

20,000
16,000

22,240
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*om. Sep. 1994;
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Rs. 2,55,000;
3 per ton sold;
I : Rs. 15,000]
manufacturing*

31.3.2008
(Rs.)

1,23,500
42,000
34,500

Cost Sheet, Tenders and Quotations

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Prepare a Cost Sheet.

[Bharathiyar B.Com Nov. 2019]
[Madras B.Com(CS) April 2012] [Bharathidasan B.Com Nov. 2016 & Nov. 2019]
[Madras, B.Com(PZ5A) Nov. 2008; B.Com(gen) (PZ5A)

April 2008; B.C.A./B.Sc. April 2004]

[Ans : Profit : Rs. 58,000; Cost of Sales : Rs. 2,26,000;
Prime Cost : Rs. 1,34,500; Works Cost : Rs. 1,68,500]

35. The following data relate to the manufacture of a product during the month of April
2021.

Raw materials consumed	-	Rs. 40,000
Direct wages	-	Rs. 24,000
Machine hours worked	-	4,000
Machiner hour rate	-	Rs. 2
Administrative overheads	-	5% of works cost
Selling overheads	-	Rs. 0.75 per unit
Units produced and sold	-	2,000
Selling price per unit	-	Rs. 40

You are required to prepare a cost sheet.

[Madras, B.Com(CS) Nov. 2005]

[Ans: Profit: Rs. 2,900; Cost of Sales: Rs. 77,100]

36. (Closing Stock Valuation)

Prepare a cost sheet.

Labour Rs. 1,50,000

Prime cost Rs. 3,50,000

Factory expenses Rs. 98,000

Office expenses Rs. 85,000

10% of the output is in stock and the sales total upto Rs. 5,10,000.

[Bharathiar, BCA Nov. 2007]

[Ans: Profit: Rs. 30,300; Closing Stock: Rs. 53,300]

Hint: Ignore Labour, as it should be part of prime cost.

37. (Closing Stock Valuation)

The following data relate to the manufacture of a product during the month of January:

Materials consumed	-	Rs. 80,000
Direct wages	-	Rs. 48,000
Machine hours worked	-	8,000
Machine hour rate	-	Rs. 4
Office overhead	-	10% on works cost
Selling overhead	-	Rs. 1.50 per unit
Units produced	-	4,000
Units sold	-	3,600 at Rs. 50 each.

Prepare a cost sheet.

[Bharathiyar B.Com April 2016] [MS Univ. B.Com April 2016]

[Madras, B.Com(PZ5A) April 2007; B.Com., April 2004]

[Periyar, B.Com., B.Com(CA) May 2006]

[Ans : Profit Rs. 16,200; closing stock value : Rs. 17,600;
Cost of production : Rs. 1,76,000]

38. (Valuation of closing finished goods)

The following data relate to the manufacturing of a standard product during the month of March 2008:

Raw materials consumed	Rs. 20,000
Direct wages	Rs. 12,000
Machine hours worked	1,000 hours
Machine hour rate	Rs. 2 per hour
Office overhead	20% on works cost
Selling overhead	Rs. 0.40 per unit
Units produced	20,000 units
Units sold at Rs. 3 each	18,000 units

Prepare a cost sheet to show:

- (a) Prime cost (b) Works cost (c) Cost of production (d) Cost of production of goods sold (e) Cost of sales (f) Profit.

[Madras, B.Com., Nov. 2006; B.Com. March 1998]

[Ans : (a) Rs. 32,000; (b) Rs. 34,000;

(c) Rs. 40,800; (d) Rs. 36,720;

(e) Rs. 43,920; (f) Rs. 10,080]

$$\text{Closing stock of finished goods} = \text{Rs. } 4,080 \left(\frac{40,800 \times 2000}{20,000} \right)$$

39. (Closing Stock Valuation)

From the following data relating to the manufacture of a standard product during the month of September 2019 prepare a statement showing the cost and profit per unit

Raw materials used	Rs. 40,000
Direct wages	Rs. 24,000
Man hours worked	9,500 hours
Man hour rate	Rs. 4 per hour
Office overheads	20% on works cost
Selling overheads	Rs. 1 per unit.
Units produced	20,000 units
Units sold	18,000 @ Rs. 10 per unit.

[Periyar B.Com Nov 2012] [Bharathiyan B.com Nov. 2017]

[Madras, B.Com (gen&AF) April 2010;

B.Com. (Sem - PZSA) Nov. 2005; BCA/B.Sc. (ICE) May 2005]

[Ans: Prime cost: Rs. 64,000; Works cost: Rs. 1,02,000;

Cost of production: Rs. 1,22,400 at Rs. 6.12 per unit;

Closing stock of finished goods: Rs. 12,240;

Cost of production of goods sold: Rs. 1,10,160;

Cost of sales: Rs. 1,28,160 at Rs. 7.12 per unit;

Profit: Rs. 51,840; at Rs. 2.88 per unit; Sales: Rs. 1,80,000]

40. (*Closing stock valuation*)

Mr. Gopal furnishes the following data relating to the manufacture of a standard product during the month of April 2020:

Raw materials consumed	Rs. 15,000
Direct labour charges	Rs. 9,000
Machine hours worked	900
Machine hour rate	Rs. 5
Administrative overheads	20% on works cost
Selling overheads	Rs. 0.50 per unit
Units produced	17,100
Units sold	16,000 at Rs. 4 per unit

You are required to prepare a cost sheet from the above showing:

- (a) The cost per unit (b) Profit per unit sold and profit for the period.

[*Madras B.Com (G & AF) Nov. 2012*]

[*Madras, B.Com(CS) (SYSE) Ap 2007; B.Com (PZSA) Nov. 2006;
B.Sc.(ICE) Oct. 2000; B.A. Corp. Sep. 1998*]

[Ans: Prime cost: Rs. 24,000; Rs. 1.40 per unit;

Works cost: Rs. 28,500 – Rs. 1.667 per unit; Cost of Production;
Rs. 34,200 at Rs. 2 per unit; Closing stock of finished goods;

Rs. 2,200; Cost of production of goods sold: Rs. 32,000;

Cost of sales: Rs. 40,000 at Rs. 2.5 per unit – Profit Rs. 24,000 at
Rs. 1.5 per unit; Sales: Rs. 64,000]

41. (*Sale of Scrap*)

From the following particulars, prepare a statement showing : (a) Prime cost,
(b) Works cost; (c) Cost of production (d) Cost of sales.

	Rs.
Opening stock of finished goods	9,750
Closing stock of finished goods	11,100
Raw materials purchased	35,250
Carriage on materials purchased	850
Direct wages	18,450
Factory expenses	2,750
Selling expenses	2,450
Office on cost	1,850
Sales	75,000
Sales of scrap	250

Also show by what percentage the average selling price in the above case should be increased in order to double the net profit.

[*Thiruvalluvar, B.Com., May 2006;
Kerala, B.Com.*]

[Ans: (a) Rs. 54,550; (b) Rs. 57,050; (c) Rs. 58,900;
(d) Rs. 60,000; Present profit : Rs. 15,000; Doubled profit :

Cost Accounting
Rs. 30,000; Required sales = $60,000 + 30,000 = \text{Rs. } 90,000$

Increase in selling price as a percentage on sales = $\frac{15,000}{75,000} \times 100 = 20\%$

42. (*Sale of Scrap*)

Prepare a cost sheet showing cost of production and profit from the following data.

	Opening Rs.	Closing Rs.
Stock of raw materials	75,000	78,750
Work-in-progress	24,600	27,300
Stock of finished goods	52,080	47,250
Purchases for the year	65,700	
Sales	2,16,930	
Direct wages	51,450	
Works expenses	25,020	
Office expenses	20,610	
Selling and distribution expenses	12,630	
Scrap sold	990	

/Madras B.Com(CS) April 2019 / Madras, B.C.S. May 2003; Oct. 2002
Madurai Kamaraj, B.Com. Nov. 1996

[Ans : Materials consumed : Rs. 61,950; Prime cost : Rs. 1,13,460;

Works cost : Rs. 1,34,730; Cost of production : Rs. 1,55,340;

Cost of production of goods sold : Rs. 1,60,170; Cost of sales:

Rs. 1,72,800; Profit : Rs. 44,130]

Hint : Scrap sold is assumed as indirect material scrap and reduced from works expense.

43. From the following particulars, prepare a statement showing the components of the total sales and the profit for the year ended 31st December.

	Rs.
Stock of finished goods (1st Jan.)	6,000
Stock of raw materials (1st Jan.)	40,000
Work-in-progress (1st Jan.)	15,000
Purchase of raw materials	4,75,000
Carriage inwards	12,500
Factory rent, taxes	7,250
Other production expenses	43,000
Stock of finished goods (31st Dec.)	15,000
Wages	1,75,000
Works manager's salary	30,000
Factory employees' salary	60,000
Power expenses	9,500
General expenses	32,500

Cost Accounting
Rs. 30,000; Required sales = $60,000 + 30,000 = \text{Rs. } 90,000$

Increase in selling price as a percentage on sales = $\frac{18,000}{78,000} \times 100 = 20\%$

42. (Sale of Scrap)

Prepare a cost sheet showing cost of production and profit from the following data:

	<i>Opening Rs.</i>	<i>Closing Rs.</i>
Stock of raw materials	75,000	78,750
Work-in-progress	24,600	27,300
Stock of finished	52,080	47,250
Purchases for the year	65,700	
Sales	2,16,930	
Direct wages	51,450	
Works expenses	25,020	
Office expenses	20,610	
Selling and distribution expenses	12,630	
Scrap sold	990	

*[Modras B.Com(CS) April 2019] [Madras, B.C.S. May 2003; Oct. 2002;
Madurai Kamaraig, B.Com. Nov. 1999]*

[Ans : Materials consumed : Rs. 61,950; Prime cost : Rs. 1,13,400;

Works cost : Rs. 1,34,730; Cost of production : Rs. 1,55,340;

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Rs. 1,72,800; Profit : Rs. 44,130]

Hint : Scrap sold is assumed as indirect material scrap and reduced from works expenses

43. From the following particulars, prepare a statement showing the components of the total sales and the profit for the year ended 31st December.

	<i>Rs.</i>
Stock of finished goods (1st Jan.)	6,000
Stock of raw materials (1st Jan.)	40,000
Work-in-progress (1st Jan.)	15,000
Purchase of raw materials	4,75,000
Carriage inwards	12,500
Factory rent, taxes	7,250
Other production expenses	43,000
Stock of finished goods (31st Dec.)	15,000
Wages	1,75,000
Works manager's salary	30,000
Factory employees' salary	60,000
Power expenses	9,500
General expenses	32,500

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- (a) Factory
- (b) Packin
- (c) Genera

(D) Cost Sheet

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Sales for the year	8,60,000
Stock of raw materials (31st Dec.)	50,000
Work-in-progress (31st Dec.)	10,000

[Andhra, B.Com.]

Works cost : Rs. 8,07,250; Cost of production : Rs. 8,39,750;

Cost of production of goods sold : Rs. 8,30,750; Profit : Rs. 29,250]

44. A company produces two kinds of Bikes 'A' and 'B'. The following details pertain to Oct. 2010.

No. of Bikes Produced	A Rs.	B Rs.	Total Rs.
Direct Costs:			
Material	3,000	2,000	5,000
Labour	6,000	4,000	10,000
Power	2,000	1,000	3,000
Indirect Costs:			
Factory Supervision	—	—	3,600
Packing Expenses	—	—	216
General Charges	—	—	3,000
Total cost			24,816

You are required to prepare a statement of cost, taking the following details into consideration.

- (a) Factory supervision to be changed in proportion to direct costs.
- (b) Packing expenses to be apportioned in the ratio of the total
- (c) General charges are to be divided in the ratio of Number of Bikes produced.

[Ans: Total cost A: Rs. 15,332; B: Rs. 9,484]**(D) Cost Sheet – With sale price computation**

45. A company has received an enquiry for the supply of 10,000 steel folding chairs. The costs are estimated as follows:

Raw materials	1,00,000 kgs at Rs. 1 per kg.
Direct wages	10,000 hours at Rs. 4 per hour
Variable overheads: Factory	Rs. 2.40 per labour hour
	Selling & Distribution Rs. 16,000
Fixed overheads: Factory	Rs. 6,000
	Selling & distribution Rs. 14,000

Prepare a statement showing the price to be fixed, which will result in a profit of 20% on the selling price.

*[Madras, B.C.S(PYE) Nov. 2007]**[C.A. Inter]*

Cost Accounts
[Ans : Total cost : Rs. 2,00,000; Profit : Rs. 50,000]

Price to be fixed : Rs. 2,50,000

46. The cost accounts department of a company has supplied the following data for supply of 2000 units of product.

Direct Materials	40,000 tons at Rs. 5 per ton
Direct Wages	8,000 Labour hours at Rs. 50 per hr
Overheads:	Factory Rs. 10 per Labour hour
Variable:	Selling Rs. 20 per unit
Fixed	Factory Rs. 1,00,000 Office Rs. 2,00,000

Prepare a statement showing the price to be fixed which will fetch a profit of 20% on cost.

[Madras, 1st M.Com(KCA2A) April 2000]

[Ans: Price: Rs. 12,75,000; Profit Rs. 2,50,000]

47. A factory produces a standard product. The following information is given to you from which you are required to prepare a cost sheet for January 2020.

	Rs.
Raw materials consumed	91,000
Direct wages	29,000
Other direct expenses	11,000
Factory overheads 80% of direct wages	
Office overheads 10% of works cost.	

Selling and distribution expenses Rs. 2 per unit sold. Units produced and sold during the month 10,000. Also find the selling price per unit on the basis that profit margin up is uniformly made to yield a profit of 20% of the selling price. There was no stock or work-in-progress either at the beginning or at the end of the period.

[Madras, B.A. Corp. March 1998]

[Ans : Selling price per unit : Rs. 23.7025 (or) Rs. 23.70]

Prime cost : Rs. 1,31,000

Works cost : Rs. 1,54,200; Cost of production : Rs. 1,69,000

Cost of sales : Rs. 1,89,620; Profit : Rs. 47,405; Sales : Rs. 2,37,025

Profit is 20% of selling price or 25% on cost of sales

48. The cost structure of an article the selling price of which is Rs. 45,000 is as follows

Direct materials	50%
Direct labour	20%
Overheads	30%

An increase of 15% in the cost of materials and of 25% in the cost of labour is anticipated. These increased costs in relation to the present selling price would cause a 25% decrease in the amount of present profit per article.

Prepare : (a) A statement of profit per article at present and (b) the revised selling price to produce the same percentage of profit to sales as before.

Cost Sheet, Tende

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(b) Labour co
(c) Overhead
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[C.A. Inter]

[Ans : (a) Profit : Rs. 15,000; Material : Rs. 15,000;

Labour : Rs. 6,000; Overhead : Rs. 9,000;

(b) Revised selling price : Rs. 50,625;

Material : Rs. 17,250; Labour : Rs. 7,500; Overheads : Rs. 9,000;

Total cost : Rs. 33,750; Profit : Rs. 16,875; Profit % to sales $33\frac{1}{3}\%$]

49. Sekhar Ltd. makes a Sewing Machine that sells for Rs. 900. An increase of 15% in cost of materials and of 10% in cost of labour is anticipated.

Given the following data, what must be the selling price to give the same percentage of gross profit as before?

- (a) Material costs have been 45% of the cost of sales.
- (b) Labour costs have been 40% of the cost of sales.
- (c) Overhead costs have been 15% of the cost of sales.
- (d) The anticipated increased costs in relation to the present sale price would cause a 35% decrease in the present gross profit.

[Madras, M.Com.]

[Ans : Required selling price : Rs. 996; Profit % on sales : 23.5%;

Present position : Material Rs. 310; Labour : Rs. 275;

Overhead : Rs. 103; Profit Rs. 211; Sales Rs. 900;

Anticipated position : Material : Rs. 356;

Labour : Rs. 303; Overheads : Rs. 103;

Profit : Rs. 234; Sales : Rs. 996]

50. In respect of a factory, the following figures have been obtained for the year 2016:

	Rs.
Cost of materials	3,00,000
Direct wages	2,50,000
Factory overheads	1,50,000
Administration overheads	1,68,000
Selling overheads	1,12,000
Distribution overheads	70,000
Profit	2,10,000

A work order has been executed in 2017 and the following expenses have been incurred:

Materials – Rs. 16,000, and wages Rs. 10,000.

Assuming that in 2017, the rate of factory overheads has increased by 20% distribution overheads have gone down by 10% and selling and administration

overheads have each gone up by $12\frac{1}{2}\%$, at what price should the product be sold

so as to earn the same rate of profit on the selling price as in 2016?

Factory overhead is based on direct wages while all other overheads are based on factory costs.

[Ans : For 1989 – Prime cost : Rs. 5,50,000; Works cost : Rs. 7,00,000;
 Cost of production : Rs. 8,68,000; Cost of sales : Rs. 10,50,000;
 Profit : Rs. 2,10,000; Works overhead to wages 60%;
 Administrative overhead to works cost 24%; Selling overhead to works
 cost 16%; Distribution overheads to works cost 10%]
 For 1990 – Prime cost of work order : Rs. 26,000;
 Works cost : Rs. 33,200; Cost of production : Rs. 42,164;
 Cost of sales : Rs. 51,128; Profit : Rs. 10,226; Sale price : Rs. 61,354;
 Profit % to sales 16.67% (or) 1/6 in both years]

(E) Cost Sheet – And Estimated costs for next period

51. Prepare cost sheet for the year 2020 from the following showing the total cost and cost per unit. Number of units produced 2,000.

	Rs.
Opening stock of raw materials	10,000
Purchases	1,80,000
Direct wages	56,000
Indirect wages	48,000
Closing stock of raw materials	12,000
Work-in-progress on 1-1-2020	5,000
Work-in-progress on 31-12-2020	6,000
Factory overheads	26,000
Office overheads	45,000
Selling overheads	16,000
Opening stock of finished goods (100 units)	20,000
Closing stock of finished goods 120 units. Profit 10% on sales.	

During the year 2021, it is decided to increase the production to 2,400 units. It is anticipated that:

- (a) Material prices will increase by 10%
- (b) Wages will reduce by 20%
- (c) Other expenses will remain constant per unit
- (d) Expected profit 20% on sales.

Ascertain selling price to be fixed per unit.

[Ans : 1986 – Prime costs : Rs. 2,34,000; Works cost : Rs. 3,07,000;
 Cost of production : Rs. 3,52,000; Closing stock of finished goods :
 Rs. 21,120; Cost of production of goods sold : Rs. 3,50,880;
 Cost of sales : Rs. 3,66,880; Profit : Rs. 40,764; Sales : Rs. 4,07,644;
 1987 – Prime cost : Rs. 2,88,720; Works cost : Rs. 3,77,520;
 Cost of production : Rs. 4,31,520; Cost of sales : Rs. 4,50,912;
 Profit : Rs. 1,12,728; Sales : Rs. 5,63,640]

52. A manufacturer of Scooters finds that in 2006 it cost him Rs. 7,20,060 to manufacture 175 scooters, which he sold for Rs. 5,400 each. The cost is made up of:

	Rs.
Materials	2,82,000
Direct wages	3,24,000
Factory overhead	48,600
Office overhead	65,460

For the next year he estimates that:

- (a) Each scooter will require materials of Rs. 1,600 and labour Rs. 1,800.
- (b) The factory overhead will bear the same relation to wages as in the previous year.
- (c) The office overhead percentage on factory cost will be the same as in the past. Prepare a statement showing the profit he would make per unit, if he reduces the price of the scooter by Rs. 200.

[Madras, B.Com., Ap 2007; B.A. Corp. April 1998; March 1990]

[Ans : In 2006 – Factory overhead to wages : 15% and office overhead to factory cost : 10%; In 2007, per unit : Prime cost : Rs. 3,400; Factory cost : Rs. 3,670; Cost of production : Rs. 4,037;

Profit : Rs. 1,163 Selling price : Rs. 5,200]

53. The Genetry Company produces two products X and Y. Estimated costs are presented below for a year in which 12,500 units of each product are expected to be sold.

	<i>Total</i>	<i>Product X Rs.</i>	<i>Product Y Rs.</i>
Direct production cost	4,50,000	3,00,000	1,50,000
Overhead cost	1,80,000	1,20,000	60,000
Selling and administrative cost	1,20,000	80,000	40,000

An annual profit of Rs. 1,50,000 for the whole company is considered satisfactory. The company uses the same gross margin percentage to arrive at the price for both products. You are required to calculate selling prices for both products X and Y.

[Madras, BCS (PYE) Nov. 2006]

[Ans: Selling price per unit: X: Rs. 48; Y: Rs. 24]

March 1987]

Rs. 3,07,000;

lished goods :

Rs. 3,50,880;

Rs. 4,07,644;

Rs. 3,77,520;

Rs. 4,50,912;

Rs. 5,63,640]

2.78

Cost Accountant		
Particulars	Rs.	Particulars
To Cost of materials	80,000	By Sales
To Direct wages	1,20,000	
To Other manufacturing costs	50,000	
To Gross profit c/d	1,50,000	
	<u>4,00,000</u>	
To Management salaries	60,000	By Gross profit b/d
To Rent, rates	10,000	
To Selling expenses	30,000	
To General expenses	20,000	
To Net profit	30,000	
	<u>1,50,000</u>	

For the year ending 31-12-2021, it is estimated that:

- (a) Output and sales will be 1,200 refrigerators.
- (b) Prices of materials will go up by 20% on the level of the previous year.
- (c) Wages will increase by 5%
- (d) Manufacturing cost will rise in proportion to the combined cost of materials and wages.
- (e) Selling costs per unit remain unchanged.
- (f) Other expenses will also remain constant.

You are required to submit a statement to the Board of directors showing the price at which the refrigerators should be sold as to show a profit of 10% on selling price.

[Madras B.Com (G & AF) April 2012] [Madras, B.Com., C&M, April 1998]

[Ans : For 1998 Estimated cost – Prime cost : Rs. 2,66,400;
Factory cost : Rs. 3,33,000; Cost of production : Rs. 4,23,000;
Cost of sales : Rs. 4,59,000; Profit : Rs. 51,000; Sales : Rs. 5,10,000]

Hint: No change in management salaries, rent, rates and general expenses because they will remain 'constant'.

55. The Managing Director of Raj Manufacturing concern consults you as to the minimum price at which he can sell output of one of the departments of the company which is intended for mass production in future. The company's records show the following

Production and sales : 100 units.

	Rs.
Materials	3,900
Direct labour	2,100
Direct charges	300
Works on cost	2,100
Office on cost	840
Selling on cost	960
Profit	1,500
	<u>11,700</u>

Hint: Use over

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It is ascertained from the records that 40% of the works oncost fluctuates directly with production and 70% of selling oncost fluctuates with sales. It is anticipated that the department would produce 1,000 units per annum and that direct labour charges per unit will reduce by 20%. Fixed works oncost charges will increase by Rs. 900. Office oncost and fixed selling oncost charges are expected to show an increase of 25%. Besides the above no other charges are anticipated. Prepare a cost sheet for submission to your client.

[Bangalore, B.Com. May 1993]

[Ans : Present profit to sales = 12.82%; Cost sheet for 1,000 units –
 Materials : Rs. 39,000; Labour : Rs. 16,800; Direct charges : Rs. 3,000;
 Prime cost : Rs. 58,800; Factory overhead : Fixed Rs. 2,160;
 Variable Rs. 8,400; Works cost : Rs. 69,360;
 Administrative overheads : Rs. 1,050; Cost of production : Rs. 70,410;
 Selling overhead : Fixed 360; Variable 6,720;
 Cost of sales : Rs. 77,490; Profit : Rs. 11,395; Sales : Rs. 88,885]

(F) Cost Sheet – Tenders and Quotations

56. The accounts of a machine manufacturing company disclose the following information for the six months ending 31st Dec. 2017.

	Rs.
Materials used	1,50,000
Productive wages	1,20,000
Factory overhead expenses	24,000
Establishment and general expenses	17,640

Prepare a cost sheet of the machines and calculate the price which the company should quote for the manufacture of a machine requiring materials valued at Rs. 1,250 and expenditure in productive wages of Rs. 750, so that the price may yield a profit of 20% on the selling price.

[Madras, B.A. Corp., Sep. 1994]

[Ans : Cost sheet – Prime cost : Rs. 2,70,000; Works cost : Rs. 2,94,000;
 Cost of production : Rs. 3,11,640; Factory overhead to wages 20%;
 Administration overhead to works cost : 6%; Quotation :
 Selling price : Rs. 2,849; Profit : Rs. 570]

Hint: Use overhead percentages for calculating quotation amount.

57. The following figures have been given from a factory for the year 2018.

Material Rs. 12,00,000; Wages Rs. 10,00,000; Factory overhead Rs. 6,00,000;
 Administration expenses Rs. 6,72,000; Selling overhead Rs. 4,48,000 distribution
 overhead Rs. 2,80,000 and Profit Rs. 8,40,000.

In 2019 the firm wants to execute a work order which requires Rs. 16,000 for materials and Rs. 10,000 for direct wages. Determine the price at the same rate of profit as in 2018.

[Ans: Price of work order: Rs. 57,600; Factory O.H. to wages: 60%; Ad. O.H. to works cost: 24%; S & D. O.H. to works cost: 26%; Profit $\frac{1}{6}$ on sales or 20% on cost]

58. The accounts of ABC, Co. Ltd. show the following:

	Rs.
Material used	7,00,000
Direct labour	5,40,000
Works overhead	1,62,000
Establishment overhead	1,12,600

What price should the company quote to manufacture a machine which will require an expenditure of Rs. 1,000 in materials and Rs. 800 in wages so that it will yield a profit of 20% on selling price? Make necessary assumptions regarding percentages.

[Madras, B.Com. March 1997]

Pondicherry, B.Com. April 1997]

[Ans : Cost Sheet – Prime cost : Rs. 12,40,000; Works cost : Rs. 14,02,000]

Cost of production : Rs. 15,14,600; Works overhead to wages : 30%

Administrative overhead to works cost : 8%

(These percentages are to be used for calculating quotation amounts)

Quotation price for machine : Rs. 2,754; Profit : Rs. 55]

59. The accounts of Pleasant Company Ltd., show the following details for the year 2015:

	Rs.
Materials	3,50,000
Labour	2,70,000
Factory overhead	81,000
Administrative overhead	56,080

It is estimated that Rs. 1,000 for material and Rs. 700 for labour will be required for one unit of the finished product for quotation purpose.

Absorb factory overheads on the basis of labour and administrative overheads on the basis of works cost. A profit of 12.5% on selling price is required on quotations.

(a) Prepare a cost sheet and

(b) Prepare a statement of the selling price per unit of the finished product.

[Thiruvalluvar B.Com April 2010]

[Madras, B.C.A./B.Sc. Oct. 2001; B.Com. Sep. 1997]

[Ans : (a) Prime cost : Rs. 6,20,000; Works cost : Rs. 7,01,000]

Cost of production : Rs. 7,57,080; Factory overhead to wages : 30%

Administrative overhead to works cost : 8%

Hint: Use overheads per cent

60. The following data

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[Ans : E

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(b) Prime cost : Rs. 1,700; Works cost : Rs. 1,910;

Cost of production : Rs. 2,063;

Profit : Rs. 295; Quotation : Rs. 2,358]

Hint: Use overheads percentages for calculating quotation amount.

60. The following data, relating to a factory for the year 2009 are available:

	Rs.
Materials consumed	2,00,000
Direct wages	1,50,000
Factory expenses	90,000
Administrative expenses	88,000

Based on the above data, find out the cost of a job to be done in January 2010.

Materials required Rs. 20,000

Wages for job Rs. 15,000

What price will be quoted for the job, if a profit at 20% on selling price is required?

[Madras, B.Com.(CS) (SYSA) Nov. 2009(Modified) B.Com. Oct. 2001]

[Ans : Price to be quoted for the job : Rs. 66,000]

61. The following details are available from the company's book.

	Rs.
Stock of materials 1-1-2020	12,800
Stock of finished goods 1-1-2020	28,000
Purchases during the year	2,92,000
Production wages	1,98,800
Sales of finished goods	5,92,000
Stock of raw materials 31-12-2020	13,600
Stock of finished goods 31-12-2020	30,000
Works overhead	43,736
Office and general expenses	35,547

The company is about to send a tender for a large plant. The costing department estimates that materials required would cost Rs. 20,000 and wages for making the plant would cost Rs. 12,000. Tender is to be made keeping net profit of 20% on selling price. State what would be the amount of the tender, if based on the usual percentages.

[Madras, B.Com.(PZSA) April 2006;

B.A. Corp. Sep. 1991]

[Ans : For 2005 – Prime cost : Rs. 4,90,000; Works cost : Rs. 5,33,736;

Cost of production : Rs. 5,69,283; Cost of sales : Rs. 5,67,283;

Profit : Rs. 24,717; Works overhead to wages 22%;

Administrative overhead to works cost : 6.66%;

Tender for plant – Tender value : Rs. 46,184; Profit : Rs. 9,237]

2.82

62. Accounts of a manufacturing company showed the following details for the year.
 Material used 8,75,000; works overhead expenses 1,85,265; Wages 6,75,000;
 Establishment expenses 1,16,250.

Show the works cost and total cost, the percentage that the works overhead cost bears to the wages and the percentage that the establishment expenses bears to the works cost. What price should the company quote to manufacture a machine which would require an expenditure of Rs. 7,500 in materials and Rs. 6,000 in wages so that it may yield a profit of 25% on the total cost?

[Madras, B.Com(gen & AF) April 2009]

[Ans: Works cost: Rs. 17,35,265; Total cost: Rs. 18,51,515,
 % of works O.H. Towages: 27.4467%]

% of establishment expenses to works cost: 6.69926%

Quotation: Rs. 20,202]

63. The Hindustan Engineering Co. Ltd. manufactured and sold 1,000 Radio sets in 2016. The following are the particulars regarding the radios sold and manufactured by them.

	Rs.
Cost of Materials	80,000
Wages paid	1,20,000
Manufacturing expenses	50,000
Salaries	60,000
Rent, Rates & Insurance	10,000
Selling expenses	30,000
General expenses	20,000
Sales	4,00,000

The company desires to supply 200 Radio sets to a commercial concern. You are required to prepare a statement showing the price at which Radios should be sold so as to show a profit of 10% on the selling price. The following additional information is supplied to you.

- (a) The price of materials will rise by 20% on the previous year's level.
- (b) Wages will rise up by 5%
- (c) Manufacturing expenses will rise by 10%
- (d) Office and selling expenses per unit will remain the same.

[Madras, B.Com(CS)(SY5A) Nov. 2009]

[Sale price: Rs. 438.33; Profit: Rs. 8,767]

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64. Compute the cost of raw material purchased from the data given below:

	Rs.
Opening stock of raw materials	10,000
Closing stock of raw materials	15,000
Expenses on purchases	5,000
Direct wages	50,000
Prime cost	1,00,000

[Madras, B.Com, B.Com(AF) Nov. 2009 (Modified)]

B.Com.,(ICE) May 2005 (2 Times) Delhi, B.Com.]

[Ans : Purchase of raw materials : Rs. 50,000;
 $(1,00,000 - 50,000 + 15,000 - 5,000 - 10,000 = 50,000)$]

65. The books of Adarsh manufacturing company present the following data for the month of April, 2021.

Direct labour cost Rs. 17,500 being 175% of works overhead. Cost of goods sold excluding administration expenses Rs. 56,000. Inventory accounts showed the following balances:

	April 1 Rs.	April 30 Rs.
Raw materials	8,000	10,600
Work-in-progress	10,500	14,500
Finished goods	17,600	19,000
Other data:	Rs.	
Selling expenses	3,500	
General and administration expenses	2,500	
Sales for the month	75,000	

You are required to

- (a) Compute the value of materials purchased and
- (b) Prepare a cost statement showing the various elements of cost and also the profit earned.

[C.A. Inter, May 1992]

[Ans : Material purchased : Rs. 36,500; Prime cost : Rs. 51,400;

Works cost : Rs. 57,400; Cost of production : Rs. 59,900;

Cost of production of goods sold : Rs. 58,500; Cost of sales :

Rs. 62,000; Profit : Rs. 13,000]

Cost Accounting
66. The following information has been obtained from the cost records of Aditya
Chemicals Ltd. for 2008:

	Rs.
Finished goods on 1-1-2008	50,000
Raw materials 1-1-2008	10,000
Work-in-progress 1-1-2008	14,000
Direct labour	1,60,000
Purchase of raw materials	98,000
Indirect labour	40,000
Heat, light and power	20,000
Factory insurance and taxes	5,000
Repairs to plant	3,000
Factory supplies	5,000
Depreciation - Factory building	6,000
Depreciation - Plant	10,000
Other information made available is:	
Factory cost of goods produced in 2008	2,80,000
Raw materials consumed in 2008	95,000
Cost of goods sold in 2008	1,60,000

No office and administration expenses were incurred during 2008. Prepare a statement of cost for the year ending 2008 giving maximum possible information and its breakup.

[Madras, B.Com(CS) (SY5E) April 2009; B.Com., Sep. 1981]

[Ans : Closing stock of raw material : Rs. 13,000;

Prime cost : Rs. 2,55,000;

Works cost excluding work-in-progress : Rs. 3,44,000;

Closing work-in-progress : Rs. 78,000;

Closing stock of finished goods : Rs. 1,70,000]

Chapter 3

I. Introduction

A major cost has to Material, L production. and public consists of organisation placement material.

II. Meaning

Material the required capital. It relating to maintain a stock".

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III. Need

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