Chapter 1
Financial Statements of Manufacturing Businesses

Manufacturing business

A business that produces or manufactures goods i.e. car/cloth manufacturer

Manufacturing account

Manufacturing businesses prepare manufacturing account as part of their internal financial statements. A manufacturing account shows the costs of running and maintaining the factory in which a final product is made.
A manufacturing business will also trade by selling its finished goods to wholesalers or retailers, so it will prepare **a trading account** in its income statement as well as manufacturing account

Types of inventory in manufacturing business

There are three types of inventory in manufacturing business.

- Raw materials (main component of finished foods, wood for furniture)
- Work-in-progress (value of semi-finished goods or incomplete goods)
- Finished goods (end product)

Note:

All three types of closing inventory will appear as current assets in the Statement of Financial position.

Manufacturing cost

Manufacturing cost = Direct production cost + Indirect production cost

➢ Direct production cost (Prime cost)

A cost that can be easily identified or calculated on a single unit produced.

- Direct material
- Direct labor
- Direct expenses (Royalty, Patents, Direct heating and lighting)

Prime cost = raw material + direct labour + direct expenses

➢ Indirect production costs

Cost that incurred in the manufacturing process but they cannot be traced directly to the goods being produced.

Include indirect material, indirect labour and indirect expenses (factory rent, factory insurance)

A manufacturing account is split into two main sections showing prime costs and indirect costs

Name of the manufacturing business
Manufacturing Account for the year ended 31st ……, 20X

	£	£
Raw material consumed		
Opening raw material	XX	
Purchases of raw material (less any purchase returns)	XX	
Carriage on raw material	XX	
Closing raw material	(XX)	XX
Direct production/factory wages		XX
Direct expenses (if any)		XX
Prime cost		**XX**
Factory overheads		
Indirect material	XX	
Factory insurance	XX	
Factory rent	XX	
Depreciation of plant	XX	
Depreciation of factory building	XX	
		XX
		XX
Opening work in progress		XX
Closing work in progress		(XX)
Cost of production		**XX**

Note : In some questions, increase or decrease work in progress is given so increase in **work in progress** is deducted and decrease in **work in progress** is added from total production cost to ascertain cost of production

Practice Questions

1. The financial year of Doshi Manufacturing Company ends on 31 January. The following trial balance was extracted from the books on 31 January 2017.

	$	$
Inventory 1 February 2016		
Raw materials	49 500	
Work in progress	28 750	
Finished goods	63 100	
Revenue		1 246 850
Returns inwards	12 250	
Purchases		
Raw materials	394 600	
Finished goods	21 700	
Returns of purchases of raw materials		16 400
Carriage inwards on purchases of finished goods	1 500	
Wages		
Factory operatives	297 100	
Factory supervisors	152 000	
Office and sales staff	108 700	
General expenses	160 000	
Premises at cost	366 000	
Factory machinery at cost	250 000	
Office equipment at cost	72 000	
Loose tools at valuation	21 150	
Provision for depreciation 1 February 2016		
Factory machinery		122 000
Office equipment		32 400
Capital 1 February 2016		630 000
Drawings	96 750	
Trade receivables	76 150	
Trade payables		41 500
Interest-free short term loan		50 000
Bank overdraft		32 100
	2 171 250	2 171 250

The following additional information is available.

1 At 31 January

		$
inventory	raw materials	41 100
	work in progress	31 250
	finished goods	59 100
wages accrued	factory supervisors	12 000
	office staff	4 300
value of loose tools		19 050

2 The factory machinery is being depreciated at 20% per annum on the reducing (diminishing) balance method.

3 The office equipment is being depreciated at 15% per annum on the straight line (equal instalment) method.

4 The loose tools are revalued at the end of each financial year.

5 The general expenses are to be apportioned 3/5 to the factory and 2/5 to the office.

REQUIRED

(a) Select the relevant figures and prepare the manufacturing account for the year ended 31 January 2017. [12]

(b) Select the relevant figures and prepare the income statement for the year ended 31 January 2017. [11]

2. Yasmin opened a garment factory on 1 May 2015.
She provided the following information.

	$
On 1 May 2015	
Cost of factory machinery	35 000
Cost of office furniture and equipment	8 500
Cost of tools	1 000
For the year ended 30 April 2016	
Revenue	113 640
Purchases of raw materials	28 600
Carriage on raw materials	1 500
Purchases of finished goods	15 700
Wages and salaries	
Factory operatives	32 300
Factory supervisors	11 860
Office and sales staff	33 150
General expenses	
Factory	3 340
Office	1 960
Rates	6 000
At 30 April 2016	
Inventory	
Raw materials	3 150
Work in progress	2 920
Finished goods	6 800
Value of tools	830

Additional information

1 The rates are to be apportioned ¾ to the factory and ¼ to the office.

2 No additional non-current assets were purchased during the year.

3 The factory machinery is to be depreciated at 20% per annum on cost.

4 The office furniture and equipment is to be depreciated at 15% per annum on cost.

5 The tools are to be revalued at the end of each financial year.

REQUIRED

(a) Prepare the manufacturing account for the year ended 30 April 2016. [13]
(b) (i) Calculate the cost of sales for the year ended 30 April 2016. [4]
(ii) Calculate the gross profit for the year ended 30 April 2016. [1]

3. The Mochudi Manufacturing Company was formed on 1 August 2013.
The following information is available.

		$
At 1 August 2013		
Cost of factory machinery		102 000
Cost of office fixtures and fittings		56 000
Cost of loose tools		4 400
For the year ended 31 July 2014		
Revenue		400 400
Purchases:	Raw materials	99 500
	Finished goods	19 300
Purchases returns:	Raw materials	1 100
Wages and salaries:	Factory operatives	94 200
	Factory supervisors	41 050
	Office staff	33 100
	Sales staff	18 900
General expenses:	Factory	19 400
	Office	17 530
Rates and insurance		5 000
At 31 July 2014		
Inventory:	Raw materials	8 600
	Work in progress	8 200
	Finished goods	21 100
Rates and insurance prepaid		400
General office expenses prepaid		280
Wages of factory operatives accrued		3 100
Value of loose tools		3 300

Additional information

1. No additional non-current assets were purchased during the year.
2. The factory machinery is to be depreciated at 15% per annum on cost.
3. The office fixtures and fittings are to be depreciated at $12\frac{1}{2}$% per annum on cost.
4. The loose tools are to be revalued at the end of each financial year.
5. The rates and insurance are to be apportioned ¾ to the factory and ¼ to the office.

REQUIRED

(a) Prepare the manufacturing account of The Mochudi Manufacturing Company for the year ended 31 July 2014. [12]
(b) Prepare the income statement of The Mochudi Manufacturing Company for the year ended 31 July 2014. [10]

Manufacturing/Factory profit

Sometimes the managers of a business will wish to gauge how efficiently their factory is operating. They compare the price that the costs of goods produce in their factory with the cost of purchasing the same goods from an outside supplier. If it would be cheap to purchase the goods externally then it may be in the best interest of the business to cease manufacturing and purchase the goods.
When the managers of a business transfer the total production cost to the trading account, gross profit is found by deducting the cost of sales from the sales revenue. This method does have a flaw- there is no indication of how profitable the factory is.
We can determine the **factory manufacturing profit** by finding the difference between the cost of production and cost of goods purchasing externally

Importance of Transfer Price

- Better control of manufacturing cost.
- Transferred price is compared with market price.
- Manufacturing department is a profit centre.
- Better way to measure the performance of the manufacturing department.

Drawbacks

- However, the use of this technique does not improve overall profitability of the business.
- Can give an unrealistic view of the factory profitability unless other production prices are researched and used to set the transfer price.

Treatment of factory profit

Transfer price = cost of production + factory profit

Example 1

The following information is provided by El Sayed Manufacturing Company.

Prime cost	$86000
Cost of production	$124000

Finished goods are transferred from factory to warehouse at cost plus 20%

What will be the transfer price shown in manufacturing account?

Provision for Unrealized Profit (PURP)

The finished goods at the year-end are valued at cost plus the manufacturing profit margin. Unrealised profit should not be anticipated and the profit element should be removed from the inventory by creating a provision for unrealised profit.
IAS 2 Lower of cost and net realisable value

Prudence /not overstating profits/assets
Realization

Treatment of Factory profit and PURP in Income Statement

- Factory profit same amount is again added in gross profit in Income Statement
- PURP adjustment is same as provision for doubtful debts in Income Statement and is calculated as follows

F.G at transfer price = finished goods at cost (1+ mark-up)

Increase/ Decreased in Provision of Unrealized Profit

Increase in Provision (Expense)
Dr Income Statement
Cr Provision for Unrealized Profit

Reduction in Provision (Income)
Dr Provision for Unrealized Profit
Cr Income Statement

T account of Provision for unrealised profit

Provision for unrealised profit account

2017		$	2017		$
Dec 31	Balance c/d	12 000	Jan 1	Balance b/d	10 000
			Dec 31	Income statement	2 000
		12 000			12 000
			2018		
			Jan 1	Balance b/d	12 000

Statement of Financial Position (extract)

Once the factory profit on the closing finished goods has been calculated then the adjustment would have to be made in the Statement of Financial Position. The closing finished goods would appear as follows:

Current assets

	£
Finished goods at transfer price	XX
Less provision for unrealised profit	(XX)
Finished goods at cost	XX

Past Paper Questions

Q # 1 Pakenham Ltd has a financial year end of 30 April each year. The manufacturing account showed the following:

Manufacturing account for the year ended 30 April 2010

	$	$
Inventory of raw materials at 1 May 2009		12 000
Purchases of raw materials		162 000
Inventory of raw materials at 30 April 2010		(18 000)
		156 000
Direct labour		160 000
Prime cost		316 000
Factory overheads		
Rent and rates	20 000	
Electricity	72 000	
Other	12 000	104 000
Factory cost of goods produced		420 000
Factory profit		63 000
		483 000

Other information is as follows:

1 During the year ended 30 April 2010 sales were $602 000 and selling and administration costs were $39000.

2 Rent and rates are allocated on the basis of floor space. The factory occupies 100 m2 and the office and showroom 150 m2.

3 Electricity is allocated on the basis of usage with 80% being used in the factory.

4 Pakenham Ltd maintains a provision for unrealised profit account. The balance on this account was $4500 on 1 May 2009 and was $4800 on 30 April 2010. The rate of factory profit had remained constant during the year.

REQUIRED

(a) Prepare an income statement for the year ended 30 April 2010. [12]

(b) Calculate the value of inventory for inclusion in the balance sheet at 30 April 2010. [4]

June 2010

Q # 2 Kelang Limited manufactures a single product. Goods are transferred from the production department to the sales department at a markup of 20%.
The following balances have been extracted from the books of Kelang Limited at 31 December 2015

	$
Non-current assets at cost	
Property	400000
Manufacturing plant and machinery	350 000
Office equipment	120 000
Provision for depreciation at 1 January 2015	
Property	120 000
Manufacturing plant and machinery	230 000
Office equipment	96 000
Inventories at 1 January 2015	
Raw materials	24 600
Work in progress	66 800
Finished goods at transfer price	162 000

The following information was available for the year ended 31 December 2015.

Direct wages	344 000
Indirect wages	69 000
Purchases of direct materials	287 000
Purchases of indirect materials	43 000
Carriage inwards on direct materials	3 700
Other factory overheads	32 500
Revenue	1562 000
Administrative expenses	374 000
Provision for unrealised profit at 1 January 2015	27 000
Water and electricity expenses	14 000

Additional information

1 Inventory at 31 December 2015

	$
Raw materials	28800
Work in progress	72 200
Finished goods at transfer price	186 000

2 Depreciation is to be provided as follows:
Property 5% on cost
Manufacturing plant and machinery 20% reducing balance method
Office equipment 15% on cost

3 Water and electricity expenses owing at 31 December 2015 amounted to $1500.

4 The following expenses are to be allocated as:

	Factory	Administration
Depreciation on property	70%	30%
Water and electricity	80%	20%

REQUIRED

(a) Prepare the manufacturing account for the year ended 31 December 2015. [8]

(b) Prepare the income statement for the year ended 31 December 2015. [7]

(c) Explain why finished goods inventory is not shown at transfer price in the statement of financial position. [3]

Additional information

Sim, the manager of the sales department, says 'It does not make sense for the production department to transfer the goods manufactured to the sales department at a mark-up. As both departments belong to the same company, we should no longer do it.'

REQUIRED

(d) Recommend whether or not they should continue to transfer goods at a mark-up. Justify your answer giving **two** reasons to support your recommendation. [7]

March 2016

Q # 3 Kempes Limited is a company which manufactures a single product. Finished goods are transferred from the factory at production cost plus 15%. Unsold goods are stored in the warehouse. Selected balances extracted from the trial balance for the year ended 30 September 2015 were as follows:

	$
Revenue	1 845 000
Purchases of raw materials	794 750
Carriage inwards	4 250
Factory production wages	382 500
Factory supervisory wages	64 000
Administrative wages	115 000
General expenses	78 000
Depreciation:	
Factory plant and machinery	55 000
Office fixtures and fittings	37 500

Additional information

1 At 30 September 2015, there were accrued general expenses of $5000 and prepaid general expenses of $3000.

65% of the general expenses relate to the factory.

2 Details of inventories were as follows.

	1 October 2014	30 September 2015
	$	$
Raw materials	110 000	125 000
Work in progress	17 500	14 000
Finished goods at transfer price	19 550	21 505

REQUIRED

(a) Prepare the manufacturing account for the year ended 30 September 2015. [9]
(b) Prepare the income statement for the year ended 30 September 2015. [6]
(c) Explain why a business might create a provision for unrealized profit. [3]

Additional information

The budgeted closing inventory value of finished goods at transfer price at 31 October 2015 was $18400.

REQUIRED

(d) Analyse the effect on the budgeted profit for the month of October 2015 due to the changes in the provision for unrealised profit. [2]

Additional information

The price at which the product could be bought from an outside supplier is expected to increase.
It is now proposed to transfer finished goods at production cost plus 20%.

REQUIRED

(e) Advise the directors whether or not the mark-up should be increased. Justify your answer. [5]

June 2016

Q # 4 Alpha Limited is a manufacturing business making a single product. Each year it produces and sells 1000 units and the only inventory it keeps is that of raw materials.
It provides the following information for the year ended 30 April 2016:

	$
Revenue	95 000
Inventory of raw materials at 1 May 2015	1 000
Inventory of raw materials at 30 April 2016	3 100
Purchases of raw materials	12 200
Carriage inwards	1 100

Factory workers' wages	17 500
Factory supervisor's salary	8 200
Office salaries	8 500
Rent	8 000
Factory overheads	9 700
General office expenses	10 000

Additional information
1 Rent is allocated 75% to the factory and 25% to the offices.
2 Production is transferred to finished goods at cost plus 25%.

REQUIRED

(a) Prepare, for the year ended 30 April 2016,
(i) the manufacturing account [8]
(ii) the income statement. [7]

Additional information

Management has discovered that general office expenses are 50% fixed and 50% variable with the level of sales.
At the start of May 2016 management expected that in the next year the business would only be able to sell 900 units. There are no expected changes to the selling price or costs per unit.

There were two options.

Option 1
To continue to produce 1000 units and have an inventory of finished goods at the next year end.
Option 2
To reduce production to 900 units and continue to have no inventory of finished goods

REQUIRED

(b) Calculate the expected annual profit if option 1 is implemented. Start your calculation with your profit from **(a)** and adjust as appropriate. [5]

Additional information

The annual profit expected from option 2 was known to be $15 100.

REQUIRED

(c) Advise the management which of the two options it should implement. Justify your answer. [5]

Nov 2016

Q # 5 M Limited manufactures a single product. The following balances have been extracted from the ledgers for the year ended 31 December 2015:

	Debit $	Credit $
Inventories at cost at 1 January 2015		
Raw materials	10 400	
Work-in-progress	12 600	
Finished goods at transfer price	14 904	
Purchases of raw materials	146 200	
Carriage inwards	3 160	
Carriage outwards	2 790	
Direct wages	249 400	
Indirect wages	54 650	
Rent	49 000	
Heat, light and power	28 600	
General expenses	12 600	
Office salaries	24 780	
Revenue		742 490
Provision for unrealised profit at 1 January 2015		2 484
Plant and machinery at cost	200 000	
Office equipment at cost	15 000	
Motor vehicles used by salesmen	25 000	
Provision for depreciation:		
plant and machinery		60 000
office equipment		4 600
motor vehicles		5 740

Additional information

1 Inventories at 31 December 2015

	$
Raw materials at cost	11 750
Work-in-progress at cost	14 670
Finished goods at transfer price	15 750

2 Expenses are to be apportioned to the production department as follows:

Rent	4/5
Heat, light and power	4/5
General expenses	3/4

3 Rent has been prepaid by $4000 at 31 December 2015.

4 Heat, light and power is in arrears by $3500 at 31 December 2015.

5 Completed goods are transferred at a mark-up on factory cost of 20%.

6 Depreciation is to be provided as follows:

Plant and machinery 10% per annum on cost
Motor vehicles 25% per annum on cost
Office equipment 15% on the net book value

REQUIRED

(a) Prepare the manufacturing account for the year ended 31 December 2015. [9]
(b) Prepare the income statement for the year ended 31 December 2015. [10]
(c) Explain what is meant by the term transfer price. [2]

Additional information

10 000 units of the product were manufactured in the year, which is the maximum that can be produced. A supplier has offered to supply the product to M Limited for $60 per unit in the future.

REQUIRED

(d) Advise the directors of M Limited whether or not they should accept this offer. Justify your answer on financial grounds. [4]

Nov 2016

Q # 6 Richard Ang is a sole proprietor manufacturing one type of sofa bed. The following balances are extracted from his books of account at 31 July 2016.

	$
Revenue	986 000
Purchases of direct materials	207 600
Carriage inwards	6 800
Carriage outwards	17 500
Returns inwards	12 000
Factory wages	
Direct	168 000
Indirect	51 400
Overheads	
Factory	155 000
Office	194 000

Additional information

1 Richard maintains a provision for unrealised profit account. Completed products are transferred from the factory at a mark-up of 20%.

2 Inventories at 31 July 2015 were:

	$
Raw materials	14 800
Work in progress	23 500
Finished goods (at cost)	32 000

3 Inventories at 31 July 2016 were:

	$
Raw materials	16 400
Work in progress	20 200
Finished goods (at transfer price)	54 000

4 Unpaid direct wages at 31 July 2016 amounted to $3500.

5 Rent had been allocated to factory overheads and office overheads at $24 000 and $16 000 respectively. The allocation should have been in the ratio of 3 : 1 respectively.

REQUIRED

(a) Prepare the manufacturing account for the year ended 31 July 2016. [7]
(b) Prepare an income statement for the year ended 31 July 2016. [7]

Additional information

Richard Ang thought of taking some of the finished goods inventory at 31 July 2016 to help his sister set up a furniture business on the same day.
REQUIRED

(c) Prepare an extract from the statement of financial position of Richard Ang's business at 31 July 2016 to show how inventories are recorded. [3]

(d) Explain why it is important for Richard to create a provision for unrealised profit. [4]

(e) State two advantages and two disadvantages to Richard Ang of helping his sister set up her business. [4]

June 2017

Q # 7 Ted is the owner of a manufacturing business.
The following information is available for the year ended 31 December 2016:

	$
Factory machinery – at cost	330 000
Office equipment – at cost	142 000
Provision for depreciation at 1 January 2016	
Factory machinery	276 000
Office equipment	67 000
Inventory at 1 January 2016	
Raw materials	52 000
Work in progress	97 000
Finished goods (at cost)	122 000
Revenue	4 268 000
Purchases of raw materials	484 000
Factory direct wages	626 000
Factory indirect wages	132 000
Office salaries	548 000
Carriage inwards	21 000
Carriage outwards	87 600
Direct expenses	120 000
Factory overheads	510 900
General office expenses	276 000
Insurance and rates	92 000
Rent	440 000
Heat and light	178 000

Additional information

1 Goods are transferred from the factory at a mark-up of 20%. Increase in provision for unrealised profit at 31 December 2016 amounted to $15 840

2 Inventory at 31 December 2016:

	$
Raw materials	67 000
Work in progress	102 000
Finished goods	?

3 Non-current assets are depreciated at 15% per annum using the reducing balance method.

4 At 31 December 2016:

	$
Rent owing	40000
Insurance and rates prepaid	6000

Insurance and rates, rent and heat and light are apportioned ¾ factory and ¼ general office.

5 Production for the year ended 31 December 2016 was 80000 units.

REQUIRED

(a) Explain why a mark-up is added to the factory cost of production. [3]
(b) Prepare the manufacturing account for the year ended 31 December 2016. [10]
(c) Prepare the trading section of the income statement to show the gross profit for the year ended 31 December 2016. [6]
(d) Prepare an extract from the statement of financial position to show the value of finished goods inventory at 31 December 2016. [2]

Additional information

In February 2017, Ted was approached by an existing customer for an extra order of 5000 units. The budgeted production for 2017 was already set at the maximum production capacity. Ted considered whether or not to source the extra 5000 units from an external supplier at a cost of $28 per unit

REQUIRED

(e) Advise Ted whether or not he should have accepted the extra order. Justify your answer. [4]

Nov 2017

Q # 8 Marco manufactures garden chairs. He transfers all finished goods from the factory at cost plus 25%. The following selected balances are available for the year ended 31 January 2018:

	$000
Carriage inwards	12
Carriage outwards	24
Heating and lighting	70
Inventories at 1 February 2017	
Raw materials	40
Work in progress	60
Finished goods at transfer price	132
Machinery	
Cost	640
Accumulated depreciation	200
Office equipment at cost	110
Office salaries	190
Purchase of raw materials	568
Rent and rates	133
Returns inwards	5
Returns outwards	23
Revenue	1920
Wages	520

The following additional information is available.

1 Inventories at 31 January 2018 were:

	$
Raw materials	42 000
Work in progress	80 000
Finished goods at transfer price	150 000

2 Depreciation is to be charged as follows:
machinery 15% per annum using the reducing balance method
office equipment 5% per annum using the straight-line method.

3 Rent and rates have not been adjusted for $7000 owing at 1 February 2017 and $6000 paid in advance at 31 January 2018. Rent and rates are apportioned 60% to the factory and 40% to administration.

4 Heating and lighting are apportioned 80% to the factory and 20% to administration.

5 At 31 January 2018 wages due but unpaid were $10 000. Wages are apportioned 50% direct factory wages, 30% indirect factory wages and 20% administrative wages.

Required

(a) Prepare the manufacturing account for Marco for the year ended 31 January 2018. [12]
(b) Prepare an extract from the statement of financial position at 31 January 2018 to show how inventories are recorded. [3]
(c) State **two** accounting concepts relating to the provision for unrealised profit. [2]
(d) (i) Explain why it is important for Marco to create a provision for unrealised profit. [4]
(ii) Analyse the effect on profit if Marco does **not** create a provision for unrealised profit. [4]

March 2018

Q # 9 JH Limited is a manufacturing business producing a single product. The transfer price of finished goods to the income statement is cost plus a fixed percentage for factory profit. This percentage has remained unchanged for many years.
The following information is available for the year ended 31 October 2017.

	$
Prime cost	252 000
Work in progress	
at 1 November 2016	28 000
at 31 October 2017	32 000
Inventory of finished goods at transfer price	
at 1 November 2016	108 000
at 31 October 2017	96 000
Revenue	1 860 000
Factory overheads	461 000
Distribution costs	216 000
Administrative expenses	412 000
Finance charges	28 000
Provision for unrealised profit	
at 1 November 2016	18 000

The following information is also available.

1 Included in the distribution costs are:

	$
Carriage inwards	18 000
Carriage outwards	34 000

2 Administrative expenses include an amount for buildings insurance of $60 000.
The following items relating to building insurance have not been adjusted:

An outstanding unpaid invoice of $3000 for the year ended 31 October 2017
A payment in advance of $1000 brought forward from the year ended 31 October 2016
The allocation of 75% of the total amount to the factory

Required

(a) Explain why a manufacturing business might prepare a manufacturing account as part of its financial statements. [4]
(b) Prepare the manufacturing account for the year ended 31 October 2017 in as much detail as possible. [5]
(c) Prepare the income statement for the year ended 31 October 2017. [9]

Additional information

The selling price of one unit is based on the transfer price from the factory plus a mark-up.
Bob, the financial director of JH Limited, has been notified that their main competitor has increased prices. He wishes to increase the fixed percentage of the transfer price by 5%. The other directors are concerned that this will affect profit.

(d) Advise the directors whether or not they should increase the transfer price. Justify your answer using any relevant calculations. [7]

June 2018

Q # 10 It is considered useful for a business to record all its manufacturing costs separately in a manufacturing account.

Required

(a) State three reasons why it is useful to a business to record its manufacturing costs in this way. [3]

Additional information

HT Limited is a manufacturing business that makes a single product. It provided the following information.

1 Factory profit had been accounted for at 20% on cost for some years.

2 The company earned a uniform gross margin of 40%.

3 Sales for the year ended 31 December 2017 amounted to $800 000.

4 The provision for unrealised profit account for the year ended 31 December 2017 was as follows:

Provision for unrealised profit account

2017		$	2017			$
Dec 31	Balance c/d	12000	Jan 1	Balance b/d		10000
			Dec 31	Income statement		2000
		12000				12000
			2018			
			Jan 1	Balance b/d		12000

(b) Prepare the trading account section of the income statement of the company for the year ended 31 December 2017. [5]

Additional information

The following information was also available for the year ended 31 December 2017.

1 Prime costs were $250 000.

2 The value of work in progress decreased by $10 000.

(c) Prepare a summarised manufacturing account for the year ended 31 December 2017. This account should include a total for factory overheads. [6]

Additional information

Administrative expenses and distribution costs were $148 000 and $72000 respectively.

(d) Prepare a statement to calculate the profit for the year ended 31 December 2017. [6]

Additional information

The machinery in the factory is depreciated at the rate of 25% per annum using the reducing balance method. It currently has a net book value of $85 000.
The directors are considering replacing all the old machinery with new machinery costing $160 000. The new machinery, if purchased, would cause direct labour costs to fall by $14 000 a year.

(e) Advise the directors whether or not they should proceed with the purchase of the new machinery. Justify your answer. [5]

Nov 2018

Q # 11 CL plc is a manufacturing business. Goods are transferred from the factory at a fixed percentage profit, which has remained unchanged for some years. The directors provided the following information for the year ended 31 December 2017.

	$
Revenue	1 820 000
Prime cost	780 000
Factory overheads	152 000
Distribution costs	283 800
Administrative expenses	343 100
Finance charges	47 100
Work in progress at 1 January 2017	17 000
Inventory of finished goods at transfer price at 1 January 2017	126 000
Work in progress at 31 December 2017	25 000
Inventory of finished goods at transfer price at 31 December 2017	96 000

The following information is also available:

1 The provision for unrealised profit account was as follows:

CL plc
Provision for unrealised profit account

2017		$		2017		$
Dec 31	Income statement	5000		Jan 1	Balance b/d	21000
	Balance c/d	16000				
		21000				21000
				2018		
				Jan 1	Balance b/d	16000

2 Total rent for the business was $100 000 for the year. All of this had been included in administrative expenses. However, 50% of it related to the factory, 25% to the offices and 25% to the distribution centres

3 The taxation charge for the year was $39 400

Required

(a) Calculate the percentage of factory profit used by the company. [3]

(b) Prepare the manufacturing account for the year ended 31 December 2017 in as much detail as possible. [4]

(c) Prepare the income statement for the year ended 31 December 2017. [11]

Additional information

CL plc has the opportunity to buy in finished goods at a cost 5% lower than the cost of each unit it manufactures.

(d) Advise the directors whether or not they should take this opportunity. Justify your answer. [4]

(e) (i) State what is meant by the term ‘prime cost’. [1]

(ii) State one example of a cost which would be included in prime cost. [1]

(iii) State one example of a cost which would be included in factory overheads. [1]

Nov 2018

Q # 12 L plc is a manufacturing business. The total prime cost for the year ended 31 December 2017 was $350000

The following selected balances were extracted from the company's books of account at 31 December 2018.

	$000
Indirect wages	100
General expenses	64
Power	36
Factory plant	
Cost	600
Accumulated depreciation at 1 January 2018	150
Inventory	
Work in progress at 1 January 2018	23

The following information is available at 31 December 2018.

1 The prime cost for the year was 10% greater than the previous year.

2 Indirect wages are to be apportioned between the factory and office in the ratio 2 :3 respectively.

3 General expenses of $6000 were prepaid. General expenses are to be apportioned equally between the factory and the office.

4 A power bill of $4000 remained unpaid. 60% of the total power expense is charged to the factory.

5 The value of work in progress was $31 000.

The following information is also available for the year ended 31 December 2018

1 A new item of factory plant was acquired on 31 October 2018 at a cost of $30 000. This transaction has not been recorded in the books of account.
Factory plant is depreciated at 25% per annum using the reducing balance method. A full year's depreciation is charged on assets acquired during the year.

2 Goods are transferred to the sales department at a mark-up of 20%

(a) Explain what is meant by:
(i) Prime cost [2]
(ii) Work in progress. [2]
(b) Prepare the manufacturing account for the year ended 31 December 2018. [13]

Additional information

After the draft statement of financial position had been prepared it was noted that the inventory value of finished goods was $33000. This was the value at which these goods had been transferred from the manufacturing account.

(c) Discuss whether the inventory should have been included at this value. Justify your answer by referring to relevant accounting concepts and appropriate calculations. [8]

May 2019

Q # 13 T plc is a manufacturing business. It accounts for factory profit at a rate which has not changed for some years. The following summarised information is available from its statements of financial position at 31 December 2018 and 31 December 2017

	2018	2017
	$	$
Non-current assets (at net book value)		
Factory equipment	100 800	112 000
Office equipment	20 400	23 600
Delivery vehicles	21 000	28 000
	142 200	163 600
Current assets		
Inventory		
raw materials	21 000	11 000
work in progress	2 600	2 800
finished goods	12 500	10 000
provision for unrealised profit	(2 500)	(2 000)
	33 600	21 800
Trade receivables	19 700	16 500
Cash and cash equivalents	8 300	2 800
	61 600	41 100
Total assets	203 800	204 700
Ordinary share capital	150 000	150 000
Retained earnings	29 200	36 300
	179 200	186 300
Current liabilities		
Trade payables	24 600	18 400
Total equity and liabilities	203 800	204 700

The following additional information is also available for the year ended 31 December 2018.

1 The change in retained earnings comes from the profit for the year and a dividend paid of $25 000.

2 There were no acquisitions or disposals of non-current assets.

3 Purchases of raw materials and production labour amounted to $246 000 and $195 500 respectively.

4 Distribution costs (excluding depreciation) amounted to $51 000 and administrative expenses (excluding depreciation) amounted to $81 000.

5 Factory overheads included $26 000 for factory rent and $31 100 for factory supervisory salaries.

(a) Prepare the manufacturing account for the year ended 31 December 2018. [8]

(b) Prepare the income statement for the year ended 31 December 2018. [10]

Additional information

The directors have been increasing the inventory of raw materials because of fears that the price of raw materials will increase considerably in the future.
(c) Discuss the factors the directors should consider in deciding whether to increase the inventory of raw materials. [5]

(d) Explain why prime cost varies when production levels vary. [2]

Nov 2019

Q # 14 T Limited, a manufacturing company, extracted the following balances from its books of account for the year ended 31 December 2019

	$
Sales revenue	782 000
Purchases of raw materials	200 400
Direct wages	206 400
Direct manufacturing expenses	8 600
Rent and rates	72 000
Repairs	18 000
Carriage inwards	6 600
Carriage outwards	16 300
Inventory at 1 January 2019	
Raw materials	17 300
Work in progress	20 400
Finished goods (cost)	55 000
Other administrative expenses	66 200

The following information is also available.

1 T Limited transfers the finished goods to the trading section of the income statement at total production costs plus a mark-up which is not constant. The transfer price represents the amount that T Limited would have had to pay if the goods were purchased from an outside supplier.

2 The transfer value for the year ended 31 December 2019 was $632400. The mark-up for the 2018 transfer value was 20%.

3 Inventory at 31 December 2019:

	$
Raw materials	18700
Work in progress	21500
Finished goods (at transfer price)	75888

4 At 31 December 2019, rent and rates remaining unpaid amounted to $3000.

5 The depreciation charge for the year 2019 amounted to $48000.

6 The following expenses are to be apportioned as follows:

	Factory	Administrative
Rent and rates	3/5	2/5
Repairs	3/4	1/4
Depreciation	2/3	1/3

(a) Prepare the manufacturing account for the year ended 31 December 2019. [8]

(b) Prepare the income statement for the year ended 31 December 2019. [7]

(c) Calculate the amount at which finished goods are included in inventory at 31 December 2019. [2]

(d) Explain, with the support of accounting concepts, the treatment of unrealised profit on finished goods in both the income statement and statement of financial position. [5]

(e) Advise the directors of T Limited whether or not they should continue basing the transfer price on the price paid to an outside supplier. Justify your answer. [3]

March 2020