

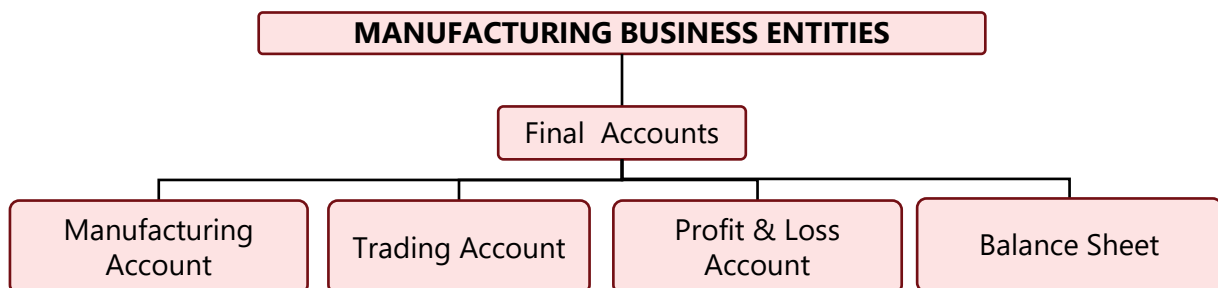
## UNIT – 2 FINAL ACCOUNTS OF MANUFACTURING ENTITIES

### LEARNING OUTCOMES

After studying this unit, you would be able to:

- ◆ Understand the purpose of preparing Manufacturing Account.
- ◆ Learn the items to be included in the Manufacturing Account
- ◆ Draw Manufacturing accounts of Manufacturing entities

### UNIT OVERVIEW



### 2.1 INTRODUCTION

The manufacturing entities generally prepare a separate Manufacturing Account as a part of Final accounts in addition to Trading Account, Profit and Loss Account and Balance Sheet. The objective of preparing Manufacturing Account is to determine manufacturing costs of finished goods for assessing the cost effectiveness of manufacturing activities. Manufacturing costs of finished goods are then transferred from the Manufacturing Account to Trading Account.

- |                       |                                                                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(a)</p> <p>(b)</p> | <p>Trading account shows Gross Profit while Manufacturing Account shows cost of goods sold which includes direct expenses.</p> <p>Manufacturing account also deals with the raw materials, and work in progress while the trading account would deal with finished goods only.</p> |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## 2.2 PURPOSE

A manufacturing account serves the following functions:

- (1) It shows the total cost of manufacturing the finished products and sets out in detail, with appropriate classifications, the constituent elements of such cost. It is, therefore, debited with the cost of materials, manufacturing wages and expenses incurred directly or indirectly to manufacture.
- (2) It provides details of factory cost and facilitates reconciliation of financial books with cost records. It also serves as a basis of comparison of manufacturing operations from period to period.
- (3) The Manufacturing Account may also be used for various other purposes. For example, if the output is carried to the Trading Account at market prices, it shows the profit or loss on manufacture. Similarly, it may also be used to fix the amount of production linked bonus when such schemes are in force.



## 2.3 MANUFACTURING COSTS

Manufacturing costs are classified into:

|                                      |       |
|--------------------------------------|-------|
| Raw Material Consumed                | ..... |
| + Direct Manufacturing Wages         | ..... |
| + Direct Manufacturing Expenses      | ..... |
| + Direct Manufacturing Cost          | ..... |
| + Indirect Manufacturing expenses or |       |
| + Manufacturing Overhead             | ..... |
| Total Manufacturing Cost             | _____ |

Raw Material consumed is arrived at after adjustment of opening and closing Inventory of raw materials:

|                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $\text{Raw Material Consumed} = \text{Opening inventory} + \text{Purchases} - \text{Closing inventory}$ <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>of Raw Materials</span> <span>of Raw Materials</span> </div> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

If there remain unfinished goods at the beginning and at the end of the accounting period, cost of such unfinished goods (also termed as Work-In-Process) is shown in the Manufacturing Account.

Opening inventory of Work-in-Process is posted to the debit of the Manufacturing Account and closing inventory of Work-in-Process is posted to the credit of the Manufacturing Account.

### DIRECT MANUFACTURING EXPENSES

Direct manufacturing expenses are costs, other than material or wages, which are incurred for a specific product or saleable service.

Examples of direct manufacturing expenses are (i) Royalties for using license or technology if based on units produced, (ii) Hire charge of the plant and machinery used on hire, if based on units produced, etc.

When royalty or hire charges are based on units produced, these expenses directly vary with production.

### ILLUSTRATION 1

*1,00,000 units were produced in a factory. Per unit material cost was ₹ 10 and per unit labour cost was ₹ 5. That apart it was agreed to pay royalty @ ₹ 3 per unit to the Japanese collaborator who supplied technology.*

#### Required

*Calculate Manufacturing Cost.*

### SOLUTION

In this case Manufacturing Cost comprises of –

|                       |                   |             |
|-----------------------|-------------------|-------------|
| Raw Material consumed | (1,00,000 × ₹ 10) | ₹ 10,00,000 |
| Direct Wages          | (1,00,000 × ₹ 5)  | ₹ 5,00,000  |
| Direct Expenses       | (1,00,000 × ₹ 3)  | ₹ 3,00,000  |
|                       |                   | ₹ 18,00,000 |

### INDIRECT MANUFACTURING EXPENSES OR OVERHEAD EXPENSES

These are also called Manufacturing overhead, Production overhead, Works overhead, etc. Overhead is defined as total cost of indirect material, indirect wages and indirect expenses.

$$\text{Overhead} = \text{Indirect Material} + \text{Indirect Wages} + \text{Indirect Expenses}$$

**Indirect material** means materials which cannot be linked directly with the units produced, for example, stores consumed for repair and maintenance work, small tools, fuel and lubricating oil, etc.

**Indirect wages** are those which cannot be directly linked to the units produced, for example, wages for maintenance works, holding pay, etc.

**Indirect expenses** are those which cannot be directly linked to the units produced, for example, training expenses, depreciation of plant and machinery, depreciation of factory shed, insurance premium for plant and machinery, factory shed, etc.

Accordingly, indirect manufacturing expenses comprise indirect material, indirect wages and indirect expenses of the manufacturing division.

### **BY-PRODUCTS**

In most manufacturing operations, the production of the main product is accompanied by the production of a subsidiary product which has a value on sale. For example, the production of hydrogenated vegetable oil is accompanied by the production of oxygen gas and the production of steel yields scrap. The subsidiary product is termed as a by-product because its production is not consciously undertaken but results out of the production of the main product. It is usually very difficult to ascertain the cost of the product. Moreover, its value usually forms a very small percentage of the main product.

By-product is a secondary product. This is produced from the same raw materials, which are used for producing the main product and without incurring any additional expenses from the same production process in which the main product is produced. Some examples of by-product are given below:

- (i) Molasses is the by-product in sugar manufacturing;
- (ii) Butter milk is the by-product of a dairy which produces butter and cheese, etc.

By-products generally have insignificant value as compared to the value of main product. They are **generally valued at net realizable value**, if their costs cannot be separately identified. It is often treated, as "Other Miscellaneous Income" but the correct treatment would be to credit the sale value of the by-product to Manufacturing Account so as to reduce to that extent, the cost of manufacture of main product.



## 2.4 DESIGN OF A MANUFACTURING ACCOUNT

There is no standardized design for the presentation of a Manufacturing Account. Given below is a format covering various elements:

**Manufacturing Account**

| Particulars                | Units | Amount | Particulars                 | Units | Amount |
|----------------------------|-------|--------|-----------------------------|-------|--------|
|                            |       | ₹      |                             |       | ₹      |
| To Raw Material Consumed:  |       |        | By By-products at net       |       |        |
| Opening inventory          |       |        | realizable value            |       |        |
| Add: Purchases             | ... . |        | By Closing Work-in- Process |       |        |
| Less: Closing inventory    | ..... |        | By Trading A/c              |       |        |
| To Direct Wages            | ..... | .....  | Cost of production          |       |        |
| To Direct expenses:        | ..... |        |                             |       |        |
| Prime cost                 |       | .....  |                             |       |        |
| To Factory overheads:      |       |        |                             |       |        |
| Royalty                    | ..... |        |                             |       |        |
| Hire charges               | ..... |        |                             |       |        |
| To Indirect expenses:      | ..... |        |                             |       |        |
| Repairs & Maintenance      | ..... |        |                             |       |        |
| Depreciation               | ..... | .....  |                             |       |        |
| Factory cost               |       | .....  |                             |       |        |
| To Opening Work-in-process |       | .....  |                             |       |        |

**Tutorial Note:** Frequently, problems are set, in which all the ledger balances are not given. Instead, details are given regarding the number of items in Inventories, quantity manufactured etc. the figures for Inventories, sales etc., would therefore have to be worked out independently from the data given.

The following general rules may be observed.

- (a) The Manufacturing Account should have columns showing the quantities and values. Frequently, all the quantities are not given and the quantities applicable to one or more of the items would have to be worked out. For example, if the question does not state the total number of items sold, the quantity can be worked out by adding opening inventory and units manufactured and deducting closing inventory. It is, therefore, useful to have quantity columns in the account so that it can be seen that both sides balance.

(b) The Manufacturing Account will show the quantity of raw materials in inventory at the beginning and at the end of the year and the purchases during the year. As regards finished goods, it will only show the quantity manufactured and, as regards work-in-progress, the opening and closing amounts.

(c) The Trading Account will show the quantities of finished goods manufactured and sold and the opening and closing inventory. It will not show the quantity of raw materials or work-in-progress.

(d) For determining the value of closing inventory, in the absence of specific instruction to the contrary, it must be assumed that sales have been on "first in-first out" basis, that is, the closing inventory consists as far as possible of goods produced during the year, the opening inventory being sold out.

It may be mentioned here that nowadays no manufacturing business entity prepares manufacturing account as part of its final set of accounts. Even the items of manufacturing account are shown either in trading account (in case of non-corporate entities) or in Statement of profit and loss (in case of corporate entities).

The procedure of preparation of Trading Account, Profit and Loss Account and Balance Sheet have already been explained in Unit 1 of this chapter. Students should refer the earlier unit for attempting the problems based on the preparation of complete set of final accounts of a sole proprietor.

### **ILLUSTRATION 2**

*Mr. Vimal runs a factory which produces soaps. Following details were available in respect of his manufacturing activities for the year ended on 31.3.20X1:*

|                                                                                                       | ₹        |
|-------------------------------------------------------------------------------------------------------|----------|
| <i>Opening Work-in-Process (10,000 units)</i>                                                         | 16,000   |
| <i>Closing Work-in-Process (12,000 units)</i>                                                         | 20,000   |
| <i>Opening inventory of Raw Materials</i>                                                             | 1,70,000 |
| <i>Closing inventory of Raw Materials</i>                                                             | 1,90,000 |
| <i>Purchases</i>                                                                                      | 8,20,000 |
| <i>Hire charges of machine @ ₹ 0.60 per unit manufactured</i>                                         |          |
| <i>Hire charges of factory</i>                                                                        | 2,20,000 |
| <i>Direct wages-Contracted @ ₹ 0.80 per unit manufactured and @ ₹ 0.40 per unit of Closing W.I.P.</i> |          |

|                                 |          |
|---------------------------------|----------|
| Repairs and Maintenance         | 1,80,000 |
| Units produced – 5,00,000 units |          |

**Required**

Prepare a Manufacturing Account of Mr. Vimal for the year ended 31.3.20X1.

**SOLUTION**

**In the Books of Mr. Vimal**  
**Manufacturing Account for the Year ended 31.3.20X1**

| Particulars                          | Units      | Amount    | Particulars                                      | Units    | Amount    |
|--------------------------------------|------------|-----------|--------------------------------------------------|----------|-----------|
|                                      |            | ₹         |                                                  |          | ₹         |
| To Opening Work- in- Process         | 10,000     | 16,000    | By Closing Work- in-Process                      | 12,000   | 20,000    |
| To Raw Materials Consumed:           |            |           | By Trading A/c – Cost of finished goods produced | 5,00,000 | 19,00,800 |
| Opening inventory                    | 1,70,000   |           |                                                  |          |           |
| Add: Purchases                       | 8,20,000   |           |                                                  |          |           |
|                                      | 9,90,000   |           |                                                  |          |           |
| Closing Inventory                    | (1,90,000) | 8,00,000  |                                                  |          |           |
| To Direct Wages – W.N. (1)           |            | 4,04,800  |                                                  |          |           |
| To Direct expenses:                  |            |           |                                                  |          |           |
| Hire charges on Machinery – W.N. (2) |            | 3,00,000  |                                                  |          |           |
| To Indirect expenses:                |            |           |                                                  |          |           |
| Hire charges of Factory Shed         |            | 2,20,000  |                                                  |          |           |
| Repairs Maintenance                  |            | 1,80,000  |                                                  |          |           |
|                                      |            | 19,20,800 |                                                  |          | 19,20,800 |

**Working Notes:**

- (1) Direct Wages – 5,00,000 units @ ₹ 0.80 = ₹ 4,00,000  
12,000 units @ ₹ 0.40 = ₹ 4,800  
₹ 4,04,800
- (2) Hire charges on Machinery (5,00,000 units @ ₹ 0.60) ₹ 3,00,000

**ILLUSTRATION 3**

On 31st March, 20X2 the Trial Balance of Mr. White were as follows:

**Trial Balance as on 31st March, 20X2**

| Particulars                 | Dr. ₹    | Particulars                  | Cr. ₹    |
|-----------------------------|----------|------------------------------|----------|
| Stock on 1st April 20X1     |          |                              |          |
| Raw Materials               | 21,000   | Sundry Creditors             | 15,000   |
| Work in Progress            | 9,500    | Bills Payable                | 7,500    |
| Finished goods              | 15,500   | Sale of Scrap                | 2,500    |
| Sundry Debtors              | 24,000   | Commission Received          | 450      |
| Carriage on Purchases       | 1,500    | Provision for doubtful debts | 1,650    |
| Bills Receivable            | 15,000   | Capital Account              | 1,00,000 |
| Wages                       | 13,000   | Sales                        | 1,67,200 |
| Salaries                    | 10,000   | Bank Overdraft               | 8,500    |
| Telephone, Postage etc.     | 1,000    |                              |          |
| Repairs to Office Furniture | 350      |                              |          |
| Cash at Bank                | 17,000   |                              |          |
| Office Furniture            | 10,000   |                              |          |
| Repairs to Plant            | 1,100    |                              |          |
| Purchases                   | 85,000   |                              |          |
| Plant and Machinery         | 70,000   |                              |          |
| Rent                        | 6,000    |                              |          |
| Lighting                    | 1,350    |                              |          |
| General Expenses            | 1,500    |                              |          |
|                             | 3,02,800 |                              | 3,02,800 |

The following additional information is available:

Stocks on 31<sup>st</sup> March, 20X2 were:

Raw Materials ₹ 16,200

Finished goods ₹ 18,100

Semi-finished goods ₹ 7,800

Salaries and wages unpaid for March 20X2 were respectively, ₹ 900 and ₹ 2,000

Machinery is to be depreciated by 10% and office furniture by 7½ %

Provision for doubtful debts is to be maintained @ 1% of sales

Office premises occupy 1/4 of total area.

Lighting is to be charged as to 2/3 to factory and 1/3 to office.

Prepare the Manufacturing Account Trading Account, Profit and Loss Account and the Balance Sheet relating to 31st March 20X2.

### SOLUTION

#### In the books of Mr. White Manufacturing Account for the year ended 31<sup>st</sup> March, 20X2

| Particulars                                       | ₹        | Particulars                                                    | ₹        |
|---------------------------------------------------|----------|----------------------------------------------------------------|----------|
| Raw material consumed:<br>To Opening Stock of Raw |          | By Closing Stock of Work in Progress                           | 7,800    |
| Materials 21,000                                  |          | By Sale of Scrap                                               | 2,500    |
| Add: Purchases 85,000                             |          | By Cost of goods Manufactured (Transferred to Trading Account) | 1,19,000 |
| Less: Closing Stock 16,200                        | 89,800   |                                                                |          |
| To Opening Stock of WIP                           | 9,500    |                                                                |          |
| To Wages 13,000                                   |          |                                                                |          |
| Add: Outstanding Wages 2,000                      | 15,000   |                                                                |          |
| To Carriage on Purchases                          | 1,500    |                                                                |          |
| To Repairs to Plant                               | 1,100    |                                                                |          |
| To Rent (3/4)                                     | 4,500    |                                                                |          |
| To Lighting (2/3)                                 | 900      |                                                                |          |
| To Depreciation of Plant                          | 7,000    |                                                                |          |
|                                                   | 1,29,300 |                                                                | 1,29,300 |

#### Trading Account for the year ended 31<sup>st</sup> March, 20X2

| Particulars                                         | ₹        | Particulars                        | ₹        |
|-----------------------------------------------------|----------|------------------------------------|----------|
| To Opening Stock of finished goods                  | 15,500   | By Sales                           | 1,67,200 |
| To Cost of goods transferred from Manufacturing A/c | 1,19,000 | By Closing Stock of finished goods | 18,100   |

## PREPARATIONS OF FINAL ACCOUNTS OF SOLE PROPRIETORS

**7.91**

|                     |          |  |          |
|---------------------|----------|--|----------|
| To Gross Profit c/d | 50,800   |  |          |
|                     | 1,85,300 |  | 1,85,300 |

### Profit and Loss Account for the year ended 31<sup>st</sup> March, 20X2

| Particulars                                                  |        | ₹      | Particulars         | ₹      |
|--------------------------------------------------------------|--------|--------|---------------------|--------|
| To Salaries                                                  | 10,000 |        | By Gross Profit b/d | 50,800 |
| Add: Outstanding                                             | 900    | 10,900 | By Commission       | 450    |
| To Telephone & Postage                                       |        | 1,000  |                     |        |
| To Repairs to Furniture                                      |        | 350    |                     |        |
| To Depreciation of furniture                                 |        | 750    |                     |        |
| To Rent (1/4)                                                |        | 1,500  |                     |        |
| To Lighting (1/3)                                            |        | 450    |                     |        |
| To General Expenses                                          |        | 1,500  |                     |        |
| To Provision for doubtful Debts: Required (1 % of ₹1,67,200) | 1,672  |        |                     |        |
| Less: Existing Provision                                     | 1,650  | 22     |                     |        |
| To Net Profit                                                |        | 34,778 |                     |        |
|                                                              |        | 51,250 |                     | 51,250 |

### Balance Sheet as at 31<sup>st</sup> March, 20X2

| Capital and Liabilities |          | ₹        | Assets             |        | ₹      |
|-------------------------|----------|----------|--------------------|--------|--------|
| Capital Account         | 1,00,000 |          | Plant & Machinery  | 70,000 |        |
| Add: Net Profit         | 34,778   | 1,34,778 | Less: Depreciation | 7,000  | 63,000 |
| Bank overdraft          |          | 8,500    | Office Furniture   | 10,000 |        |
| Sundry Creditors        |          | 15,000   | Less: Depreciation | 750    | 9,250  |
| Bills Payable           |          | 7,500    | Closing Stock      |        |        |
| Salary Payable          |          | 900      | Raw Materials      |        | 16,200 |
| Wages Payable           |          | 2,000    | Work in Progress   |        | 7,800  |
|                         |          |          | Finished Goods     |        | 18,100 |
|                         |          |          | Sundry Debtors     | 24,000 |        |

|  |          |                                                |       |          |
|--|----------|------------------------------------------------|-------|----------|
|  |          | Less: Provision for<br>Bad & Doubtful<br>Debts | 1,672 | 22,328   |
|  |          | Bills Receivable                               |       | 15,000   |
|  |          | Cash at Bank                                   |       | 17,000   |
|  | 1,68,678 |                                                |       | 1,68,678 |

**NOTE:** The ICAI has, through guidance note (August, 2023 edition) provided guidance on the formats of financial statements for non-corporate entities. This would enable these entities to communicate their financial performance and financial position in standardised formats thereby enhancing their consistency and comparability. The said format of financial statements has been given as **Annexure – I** at the end of the chapter for awareness of students. It may be noted that this format does not form part of syllabus and has been given here for the knowledge of students only.

## SUMMARY

- ◆ Direct manufacturing expenses are costs, other than material or wages, which are incurred for a specific product or saleable service.
- ◆ Indirect Manufacturing expenses these are also called Manufacturing overhead, Production overhead, Works overhead, etc.
- ◆ Overhead is defined as total cost of indirect material, indirect wages and indirect expenses.
- ◆ Indirect material means materials which cannot be linked directly with the units produced, for example, stores consumed for repair and maintenance work, small tools, fuel and lubricating oil, etc. In most manufacturing operations, the production of the main product is accompanied by the production of a subsidiary product which has a value on sale.
- ◆ By-product is a secondary product. This is produced from the same raw materials, which are used for producing the main product and without incurring any additional expenses from the same production process in which the main product is produced.

## **TEST YOUR KNOWLEDGE**

### **True and False**

1. *By-products valued at cost or net realisable value whichever is lower.*
2. *The manufacturing account is prepared to ascertain the profit or loss on the goods produced.*
3. *If there remain unfinished goods at the beginning and at the end of the accounting period, cost of such unfinished goods is shown in the Manufacturing Account.*
4. *Raw Material Consumed = Opening inventory of Raw Materials + Purchases – Closing inventory of Raw Materials.*
5. *The Trading Account will show the quantities of finished goods, raw materials and work-in-progress.*
6. *Overhead is defined as total cost of direct material, direct wages and direct expenses.*
7. *Manufacturing A/c is prepared by an enterprise engaged in trading activities.*

### **Multiple Choice Questions**

1. *Under-statement of closing work in progress in the period will*
  - (a) *Understate cost of goods manufactured in that period.*
  - (b) *Overstate current assets.*
  - (c) *Understate net income in that period.*
  - (d) *None of the three.*
2. *Sales is equal to*
  - (a) *Cost of goods sold – Gross profit.*
  - (b) *Cost of goods sold + Gross profit.*
  - (c) *Gross profit – Cost of goods sold.*
  - (d) *Net profit + cost of goods sold.*
3. *Indirect Manufacturing expenses are also called*
  - (a) *Manufacturing overhead.*
  - (b) *Production overhead.*
  - (c) *Works overhead.*

- (d) *All the three.*
4. *Sale value of the by-product is credited to*
- (a) *Manufacturing account.*
  - (b) *Capital account.*
  - (c) *Overheads account.*
  - (d) *Trading account.*
5. *Manufacturing account shows*
- (a) *Total cost of manufacturing the finished products.*
  - (b) *It provides details of factory cost.*
  - (c) *It facilitates reconciliation of financial books with cost records.*
  - (d) *All the three.*
6. *Which of the following is an example of a Direct Manufacturing Expense?*
- (a) *Depreciation on Factory Building*
  - (b) *Royalty payable based on units produced*
  - (c) *Salary of Factory Supervisor*
  - (d) *Factory Insurance Premium*
7. *Which of the following items is treated as Manufacturing Overhead?*
- (a) *Direct wages paid to production workers*
  - (b) *Fuel used in factory machinery maintenance*
  - (c) *Royalty based on units produced*
  - (d) *Freight inward on raw materials*
8. *Which of the following is not included in Raw Material Consumed?*
- (a) *Opening Inventory of Raw Materials*
  - (b) *Purchases of Raw Materials*
  - (c) *Closing Inventory of Raw Materials*
  - (d) *Closing Inventory of Finished Goods*

### Theoretical Questions

1. Write short note on by-products.
2. Differentiate between Direct Manufacturing Expenses and Indirect Manufacturing expenses.

### Practical Questions

1. Mr. Pankaj runs a factory which produces motor spares of export quality. The following details were obtained about his manufacturing expenses for the year ended on 31.3.20X1.

|                             |                                     |  | ₹         |
|-----------------------------|-------------------------------------|--|-----------|
| W.I.P.                      | - Opening                           |  | 3,90,000  |
|                             | - Closing                           |  | 5,07,000  |
| Raw Materials               | - Purchases                         |  | 12,10,000 |
|                             | - Opening                           |  | 3,02,000  |
|                             | - Closing                           |  | 3,10,000  |
|                             | - Returned                          |  | 18,000    |
|                             | - Indirect material                 |  | 16,000    |
| Wages                       | - direct                            |  | 2,10,000  |
|                             | - indirect                          |  | 48,000    |
| Direct expenses             | - Royalty on production             |  | 1,30,000  |
|                             | - Repairs and maintenance           |  | 2,30,000  |
|                             | - Depreciation on factory shed      |  | 40,000    |
|                             | - Depreciation on plant & machinery |  | 60,000    |
| By-product at selling price |                                     |  | 20,000    |

You are required to prepare Manufacturing Account of Mr. Pankaj for the year ended on 31.3.20X1.

2. Following are the Manufacturing A/c, Creditors A/c and Raw material A/c provided by Ms. Shivi related to 20X1-X2. There are certain figures missing from these accounts.

**Raw Material A/c**

| <b>Date</b> | <b>Particulars</b>   | <b>Amount<br/>₹</b> | <b>Date</b> | <b>Particulars</b>       | <b>Amount<br/>₹</b> |
|-------------|----------------------|---------------------|-------------|--------------------------|---------------------|
|             | To Opening Stock A/c | 1,00,000            |             | By Raw Material Consumed | .....               |
|             | To Creditors A/c     | .....               |             | By Closing Stock A/c     | .....               |

**Creditors A/c**

| <b>Date</b> | <b>Particulars</b> | <b>Amount<br/>₹</b> | <b>Date</b> | <b>Particulars</b> | <b>Amount<br/>₹</b> |
|-------------|--------------------|---------------------|-------------|--------------------|---------------------|
|             | To Bank A/c        | 22,00,000           |             | By Balance b/d     | 15,00,000           |
|             | To Balance c/d     | 6,00,000            |             |                    |                     |

**Manufacturing A/c**

| <b>Particulars</b>       | <b>Amount<br/>₹</b> | <b>Particulars</b>        | <b>Amount<br/>₹</b> |
|--------------------------|---------------------|---------------------------|---------------------|
| To Raw Material Consumed | .....               | By Cost of finished goods | 17,94,000           |
| To Wages                 | 3,50,000            |                           |                     |
| To Depreciation          | 2,00,000            |                           |                     |
| To Direct Expenses       | 2,44,000            |                           |                     |

**Additional Information:**

- 1) Purchase of machinery worth ₹ 10,00,000 has been omitted. Machinery are chargeable at a depreciation rate of 10%.
- 2) Wages include the following
  - Paid to Factory Workers - ₹ 3,00,000
  - Paid to labour at office - ₹ 50,000
- 3) Direct Expenses include following:
  - ♦ Electricity charges of ₹ 80,000 of which 30% pertained to office.
  - ♦ Fuel Charges of ₹ 20,000
  - ♦ Freight Inwards of ₹ 35,000
  - ♦ Delivery charges to customers - ₹ 20,000.

You are required to prepare revised Manufacturing A/c, and Raw Material A/c.

3. The following is the trial balance of Mr. Pandit for the year ended 31<sup>st</sup> March, 20X1:

***Trial Balance as on 31<sup>st</sup> March 20X1***

| <b>Particulars</b>        | <b>Dr. ₹</b> | <b>Particulars</b>                   | <b>Cr. ₹</b> |
|---------------------------|--------------|--------------------------------------|--------------|
| Opening Stock:            |              |                                      |              |
| Raw Materials             | 1,50,000     | Sundry Creditors                     | 50,000       |
| Finished goods            | 75,000       | Purchase Returns                     | 5,000        |
| Purchase of Raw Materials | 5,00,000     | Capital                              | 1,00,000     |
| Land & Building           | 1,00,000     | Bills Payable                        | 24,000       |
| Loose tools               | 30,000       | Long-Term Loan                       | 2,00,000     |
| Plant & Machinery         | 30,000       | Provision for Bad and Doubtful Debts | 2,000        |
| Investments               | 25,000       | Sales                                | 8,50,000     |
| Cash in Hand              | 20,000       | Bank Overdraft                       | 23,000       |
| Cash at Bank              | 5,000        |                                      |              |
| Furniture & Fixtures      | 15,000       |                                      |              |
| Bills Receivable          | 15,000       |                                      |              |
| Sundry Debtors            | 40,000       |                                      |              |
| Drawings                  | 20,000       |                                      |              |
| Salaries                  | 20,000       |                                      |              |
| Coal and Fuel             | 15,000       |                                      |              |
| Factory rent & rates      | 20,000       |                                      |              |
| General Expenses          | 4,000        |                                      |              |
| Advertisement             | 5,000        |                                      |              |
| Sales Return              | 10,000       |                                      |              |
| Bad Debts                 | 4,000        |                                      |              |
| Direct Wages (Factory)    | 80,000       |                                      |              |
| Power                     | 30,000       |                                      |              |
| Interest Paid             | 7,000        |                                      |              |

|                   |           |  |           |
|-------------------|-----------|--|-----------|
| Discount Allowed  | 3,000     |  |           |
| Carriage Inwards  | 15,000    |  |           |
| Carriage Outwards | 7,000     |  |           |
| Commission Paid   | 9,000     |  |           |
|                   | 12,54,000 |  | 12,54,000 |

**Additional Information**

Stock of finished goods at the end of the year ₹1,00,000.

A provision for doubtful debts is to be created. at 5% on Sundry Debtors. Depreciation on building ₹ 1,000 and ₹ 3,000 on Plant & Machinery to be provided.

Accrued commission of ₹ 12,500 is to be received for the year. Interest has accrued on investment ₹ 15,000.

Salary Outstanding ₹ 2,000 and Prepaid Interest ₹ 1,500.

You are required to prepare Manufacturing, Trading and Profit and Loss Account for the year ended 31<sup>st</sup> March, 20X1.

**ANSWERS/HINTS****True and False**

1. False: By-products generally have insignificant value as compared to the value of main product. Therefore, they are generally valued at net realizable value.
2. False: The objective of preparing Manufacturing Account is to determine manufacturing costs of finished goods for assessing the cost effectiveness of manufacturing activities.
3. True: Manufacturing account deals with the raw material and work in progress.
4. True: Raw Material consumed is arrived at after adjustment of opening and closing inventory of raw materials and purchases.
5. False: The Trading Account will show the quantities of finished goods manufactured and sold and the opening and closing inventory. It will not show the quantity of raw materials or work-in-progress.
6. False: Overhead is defined as total cost of indirect material, indirect wages and indirect expenses.

7. False: Manufacturing A/c is prepared by the entities engaged in manufacturing activities.

### Multiple Choice Questions

|    |     |    |     |    |     |    |     |    |     |   |     |
|----|-----|----|-----|----|-----|----|-----|----|-----|---|-----|
| 1. | (c) | 2. | (b) | 3. | (d) | 4. | (a) | 5. | (d) | 6 | (b) |
| 7. | (b) | 8. | (d) |    |     |    |     |    |     |   |     |

### Theoretical Questions

- By-products generally have insignificant value as compared to the value of main product. They are **generally valued at net realisable value**, if their costs cannot be separately identified. It is often treated, as "Miscellaneous income" but the correct treatment would be to credit the sale value of the by-product to Manufacturing Account so as to reduce to that extent, the cost of manufacture of main product.
- Direct manufacturing expenses** are costs, other than material or wages, which are incurred for a specific product or saleable service.

**Indirect Manufacturing expenses** are also called Manufacturing overhead, Production overhead, Works overhead, etc. Overhead is defined as total cost of indirect material, indirect wages and indirect expenses.

For detail, refer para 2.3

### Practical Problems

1. **In the Books of Mr. Pankaj**

#### Manufacturing Account for the year ended on March 31, 20X1

| Particulars               |           | Amount   | Particulars             | Amount    |
|---------------------------|-----------|----------|-------------------------|-----------|
|                           | ₹         | ₹        |                         | ₹         |
| To Opening W.I.P.         |           | 3,90,000 | By Closing W-I-P        | 5,07,000  |
| To Raw Material Consumed: |           |          | By by products          | 20,000    |
| Opening inventory         | 3,02,000  |          | By Trading A/c- Cost of | 17,81,000 |
| Purchases                 | 12,10,000 |          | finished goods          |           |
|                           | 15,12,000 |          | transferred             |           |
| Less: Return              | (18,000)  |          |                         |           |
|                           | 14,94,000 |          |                         |           |

|                            |            |           |  |           |
|----------------------------|------------|-----------|--|-----------|
| Less: Closing inventory    | (3,10,000) | 11,84,000 |  |           |
| To Direct Wages            |            | 2,10,000  |  |           |
| To Direct expenses:        |            |           |  |           |
| Royalty                    |            | 1,30,000  |  |           |
| To Manufacturing Overhead: |            |           |  |           |
| Indirect Material          | 16,000     |           |  |           |
| Indirect Wages             | 48,000     |           |  |           |
| Repairs & Maintenance      | 2,30,000   |           |  |           |
| Depreciation on            |            |           |  |           |
| Factory Shed               | 40,000     |           |  |           |
| Depreciation on Plant &    |            |           |  |           |
| Machinery                  | 60,000     | 3,94,000  |  |           |
|                            |            | 23,08,000 |  | 23,08,000 |

## 2. Manufacturing A/c

| Particulars                                    | Amount ₹  | Particulars             | Amount ₹  |
|------------------------------------------------|-----------|-------------------------|-----------|
| To Raw Material Consumed<br>(Balancing Figure) | 10,00,000 | By Trading A/c (W.N. 4) | 18,00,000 |
| To Wages (W.N. 2)                              | 3,00,000  |                         |           |
| To Depreciation (W.N. 1)                       | 3,00,000  |                         |           |
| To Direct Expenses (W.N. 3)                    | 2,00,000  |                         |           |
|                                                | 18,00,000 |                         | 18,00,000 |

## Raw Material A/c

| Date | Particulars                  | Amount ₹  | Date | Particulars                                             | Amount ₹  |
|------|------------------------------|-----------|------|---------------------------------------------------------|-----------|
|      | To Opening Stock<br>A/c      | 1,00,000  |      | By Raw Material<br>Consumed (from<br>Trading A/c above) | 10,00,000 |
|      | To Creditors A/c<br>(W.N. 5) | 13,00,000 |      | By Closing Stock A/c<br>(Balancing Figure)              | 4,00,000  |
|      |                              | 14,00,000 |      |                                                         | 14,00,000 |

1) Since purchase of Machinery worth ₹ 10,00,000 has been omitted.

$$= ₹1,00,000$$
$$= ₹ 3,00,000$$

- 3) Expenses to be excluded from direct expenses:**

|                                            |        |
|--------------------------------------------|--------|
| Total expenses not part of Direct Expenses | 44,000 |
|--------------------------------------------|--------|

$$\Rightarrow \text{Revised Direct Expenses} = ₹ (2,44,000 - 44,000) = ₹ 2,00,000$$

Fuel charges are related to factory expenses and also freight inwards are incurred for bringing goods to factory/ godown so they are part of direct expenses.

- 4) Revised Balance to be transferred to Trading A/c:**

| Particulars                                           | Amount<br>₹ |
|-------------------------------------------------------|-------------|
| Current Balance transferred                           | 17,94,000   |
| <i>Add:</i> Depreciation charges not recorded earlier | 1,00,000    |
| <i>Less:</i> Wages related to Office                  | (50,000)    |
| <i>Less:</i> Office Expenses                          | (44,000)    |
| Revised balance to be transferred                     | 18,00,000   |

- 5) Creditors A/c**

| Date | Particulars    | Amount<br>₹ | Date | Particulars                        | Amount<br>₹ |
|------|----------------|-------------|------|------------------------------------|-------------|
|      | To Bank A/c    | 22,00,000   |      | By Balance b/d                     | 15,00,000   |
|      | To Balance c/d | 6,00,000    |      | By Raw Materials A/c (Bal. figure) | 13,00,000   |
|      |                | 28,00,000   |      |                                    | 28,00,000   |

3.

In the books of Mr. Pandit

**Manufacturing Account for the year ended 31<sup>st</sup> March, 20X1**

| Particulars                       |          | ₹        | Particulars                                              | ₹        |
|-----------------------------------|----------|----------|----------------------------------------------------------|----------|
| To Opening Stock of Raw Materials |          | 1,50,000 | By Cost of Manufactured goods transferred to Trading A/c | 8,08,000 |
| To Purchase                       | 5,00,000 |          |                                                          |          |
| Less: Purchase Return             | 5,000    | 4,95,000 |                                                          |          |
| To Carriage Inwards               |          | 15,000   |                                                          |          |
| To Direct Wages                   |          | 80,000   |                                                          |          |
| To Power                          |          | 30,000   |                                                          |          |
| To Coal and fuel                  |          | 15,000   |                                                          |          |
| To Factory Rent and Rates         |          | 20,000   |                                                          |          |
| To Depreciation on Machinery      |          | 3,000    |                                                          |          |
|                                   |          | 8,08,000 |                                                          | 8,08,000 |

**Trading Account for the year ended 31<sup>st</sup> March, 20X1**

| Particulars                                         | ₹        | Particulars        |               | ₹        |
|-----------------------------------------------------|----------|--------------------|---------------|----------|
| To Opening Stock of finished goods                  | 75,000   | By Sales           | 8,50,000      |          |
| To Cost of goods transferred from Manufacturing A/c | 8,08,000 | Less: Sales Return | <u>10,000</u> | 8,40,000 |
| To Gross Profit c/d                                 | 57,000   | By Closing Stock   |               | 1,00,000 |
|                                                     | 9,40,000 |                    |               | 9,40,000 |

**Profit and Loss Account for the year ended 31<sup>st</sup> March 20X1**

| Particulars         |        | ₹      | Particulars           | ₹      |
|---------------------|--------|--------|-----------------------|--------|
| To Carriage Outward |        | 7,000  | By Gross Profit b/d   | 57,000 |
| To Discount Allowed |        | 3,000  | By Accrued Commission | 12,500 |
| To Commission Paid  |        | 9,000  | By Accrued Interest   | 15,000 |
| To General Expenses |        | 4,000  |                       |        |
| To Advertisement    |        | 5,000  |                       |        |
| To Salaries         | 20,000 |        |                       |        |
| Add: Outstanding    | 2,000  | 22,000 |                       |        |
| To Interest Paid    | 7,000  |        |                       |        |

**PREPARATIONS OF FINAL ACCOUNTS OF  
SOLE PROPRIETORS**

**7.103**

|                                        |       |        |  |        |
|----------------------------------------|-------|--------|--|--------|
| Less: Prepaid                          | 1,500 | 5,500  |  |        |
| To Provision for Bad & Doubtful Debts  | 2,000 |        |  |        |
| Add: Bad Debts                         | 4,000 |        |  |        |
| Less: Old Provision for Doubtful Debts | 2,000 | 4,000  |  |        |
| To Depreciation on Building            |       | 1,000  |  |        |
| To Net Profit c/d                      |       | 24,000 |  |        |
|                                        |       | 84,500 |  | 84,500 |

**Balance Sheet as at 31<sup>st</sup> March, 20X1**

| Capital and Liabilities |          | ₹        | Assets                                   |          | ₹        |
|-------------------------|----------|----------|------------------------------------------|----------|----------|
| Capital                 | 1,00,000 |          | Plant & Machinery                        | 30,000   |          |
| Add: Net Profit         | 24,000   |          | Less: Depreciation                       | 3,000    | 27,000   |
|                         | 1,24,000 |          | Land & Building                          | 1,00,000 |          |
| Less: Drawings          | 20,000   | 1,04,000 | Less: Depreciation                       | 1,000    | 99,000   |
| Bills Payable           |          | 24,000   | Furniture & Fixtures                     |          | 15,000   |
| Sundry Creditors        |          | 50,000   | Investments                              |          | 25,000   |
| Salary Outstanding      |          | 2,000    | Closing Stock                            |          | 1,00,000 |
| Long-Term Loans         |          | 2,00,000 | Loose Tools                              |          | 30,000   |
| Bank Overdraft          |          | 23,000   | Sundry Debtors                           | 40,000   |          |
|                         |          |          | Less: Provision for Bad & Doubtful Debts | 2,000    | 38,000   |
|                         |          |          | Bills Receivable                         |          | 15,000   |
|                         |          |          | Accrued Commission                       |          | 12,500   |
|                         |          |          | Accrued Interest                         |          | 15,000   |
|                         |          |          | Prepaid Interest                         |          | 1,500    |
|                         |          |          | Cash in Hand                             |          | 20,000   |
|                         |          |          | Cash at Bank                             |          | 5,000    |
|                         |          | 4,03,000 |                                          |          | 4,03,000 |

## Case Scenarios for Practice

1. Mr. Ramesh runs a small factory that manufactures wooden toys. During the accounting year 20X1–X2, the factory consumed raw materials worth ₹3,00,000 and paid direct wages of ₹1,50,000 to production workers. During the accounting year 20X1–X2, the business witnessed steady production and sales as demand for its products remained satisfactory. To meet production requirements, the factory procured raw materials, employed workers, and incurred various manufacturing and business-related expenses.

The factory uses a particular production technology obtained from an outside supplier, under which Mr. Ramesh must pay royalty at the rate of ₹2 per unit produced. For the year, the royalty paid came to ₹20,000.

In addition, the factory premises are taken on rent. The total factory rent for the year was ₹60,000, but by the end of the year ₹10,000 of this rent remained unpaid (outstanding).

All the finished goods produced during the year were transferred to the Trading Account. The total sales for the year amounted to ₹8,00,000. At the close of the year, the closing stock of finished goods was valued at ₹90,000.

Mr. Ramesh's outstanding debtors at year-end amounted to ₹1,00,000, and he decided to create a provision for doubtful debts of ₹5,000 on these debtors.

## Multiple Choice Questions

- 1.1 Royalty paid @ ₹2 per unit produced is classified in the Manufacturing Account as:
  - (a) Indirect manufacturing expense
  - (b) Direct manufacturing expense
  - (c) Administration expense
  - (d) Financial expense
- 1.2 The outstanding factory rent of ₹10,000 should be:
  - (a) Ignored as it has not yet been paid
  - (b) Added to factory rent in the Manufacturing A/c and shown as a current liability in the Balance Sheet

- (c) Deducted from rent paid and shown as current liability in the Balance Sheet
  - (d) Shown as a Current Asset in the Balance Sheet but not adjusted in manufacturing A/c or Profit and Loss A/c
- 1.3 The provision for doubtful debts of `5,000 should be debited to the:
- (a) Trading Account
  - (b) Manufacturing Account
  - (c) Profit and Loss Account
  - (d) Debtors Account directly, with no other adjustment
- 1.4 Closing stock of finished goods (`90,000) will appear in the final accounts as:
- (a) Credit side of Trading Account and Asset side of Balance Sheet
  - (b) Debit side of the Manufacturing Account only
  - (c) Debit side of Profit and Loss Account
  - (d) Liability side of the Balance Sheet

### **Answer to Multiple Choice Questions**

| Question No | Correct Option | Reasoning                                                                                                                                                                                                                                                             |
|-------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1         | <b>(b)</b>     | Royalty paid on the basis of units produced is a Direct Manufacturing Expense since it is directly attributable to production and forms part of the Manufacturing expenses.                                                                                           |
| 1.2         | <b>(b)</b>     | As per accrual basis of accounting, all expenses relating to the current accounting period are recognised irrespective of whether they have been paid. Therefore, the outstanding rent is charged to the Manufacturing Account and shown as an outstanding liability. |
| 1.3         | <b>(c)</b>     | Provision for doubtful debts represents an anticipated loss on receivables and is charged to the Profit and Loss Account in accordance with the Principle of Prudence (Conservatism).                                                                                 |
| 1.4         | <b>(a)</b>     | Closing Inventory of Finished Goods is credited to the Trading Account while computing Gross Profit and is also shown under Current Assets in the Balance Sheet.                                                                                                      |

2. M/s Priya Traders is a sole proprietorship concern engaged in the business of trading household goods. While preparing the final accounts for the year ended 31st March, 20X2, the accountant extracted the following information from the books of account. The opening inventory of goods was valued at ₹50,000. During the year, goods worth ₹4,00,000 were purchased, out of which goods costing ₹20,000 were returned to the suppliers. The business incurred Direct Wages of ₹30,000 and Carriage Inwards of ₹10,000 in connection with the purchases. Gross sales during the year amounted to ₹6,00,000, while customers returned goods worth ₹40,000. The value of closing inventory as on 31st March, 20X2 was ₹70,000. Salaries amounting to ₹80,000 were paid during the year; however, ₹5,000 relating to the current accounting year remained outstanding. Rent of ₹36,000 was paid, which included ₹3,000 pertaining to the next accounting year. In addition, the business received discount of ₹4,000 during the year. Based on the above information, answer the following questions:

### Multiple Choice Questions

- 2.1 Cost of Goods Sold (COGS) for the year is:
- (a) ₹3,90,000
  - (b) ₹4,00,000
  - (c) ₹4,10,000
  - (d) ₹3,60,000
- 2.2 Gross Profit for the year is:
- (a) ₹1,40,000
  - (b) ₹1,50,000
  - (c) ₹1,60,000
  - (d) ₹1,70,000
- 2.3 The amount of Salaries to be debited to the Profit and Loss Account is:
- (a) ₹75,000
  - (b) ₹80,000
  - (c) ₹85,000
  - (d) ₹90,000

2.4 The Net Profit for the year is:

- (a) ₹40,000
- (b) ₹42,000
- (c) ₹46,000
- (d) ₹50,000

### Answer to Multiple Choice Questions

| Question No | Correct Option | Reasoning                                                                                                                                                    |
|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1         | <b>(b)</b>     | COGS = Opening Stock + Net Purchases + Direct Wages + Carriage Inwards – Closing Stock = ₹ 50,000 + ₹ 3,80,000 + ₹ 30,000 + ₹ 10,000 – ₹ 70,000 = ₹4,00,000. |
| 2.2         | <b>(c)</b>     | Gross Profit = Net Sales – COGS = (₹ 6,00,000 – ₹ 40,000) – ₹ 4,00,000 = ₹ 5,60,000 – ₹ 4,00,000 = ₹1,60,000.                                                |
| 2.3         | <b>(c)</b>     | As per the Matching Principle, outstanding salary is added: ₹ 80,000 + ₹ 5,000 = ₹ 85,000, with ₹ 5,000 also shown as a current liability.                   |
| 2.4         | <b>(c)</b>     | Net Profit = Gross Profit + Discount Received – Salaries – Rent = ₹ 1,60,000 + ₹ 4,000 – ₹ 85,000 – ₹ 33,000 = ₹ 46,000.                                     |