REVISION: MANUFACTURING 12 SEPTEMBER 2013

Lesson Description

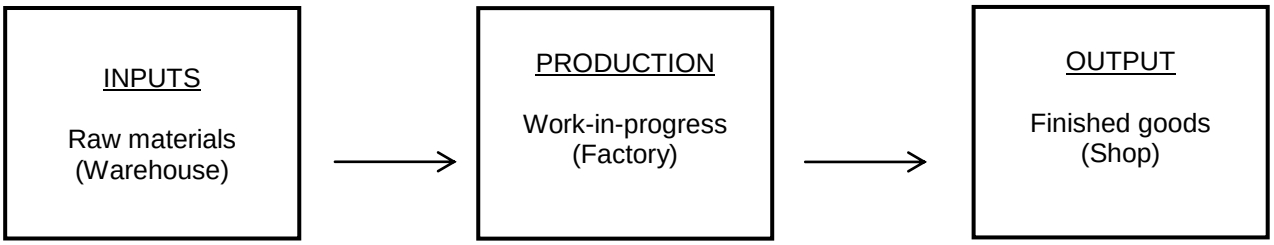
In this lesson we:

- Revise ledger accounts and the production cost statement

Key Concepts

Ledger Accounts for Manufacturing

- Differences between a manufacturing business and a retail / service business
- A manufacturing business has **three** different stock accounts, as opposed to a retail business which has **one**, and a service business which has **none** at all (Why?)
- The three stock accounts are as follows:
    - **Raw materials stock** – the account that records raw materials purchased (on the debit side) and returned / issued to the factory to be used in the production process (credit side)
    - **Work-in-progress** – this account records goods that are in the production process, but are **unfinished**. The balance at the year-end will be goods that are partially completed – they are worth more than raw materials, but less than finished goods and cannot be sold.
    - **Finished goods stock** – these are goods that are ready for sale (= the trading stock account of a retail business).
- This diagram shows how the three stock accounts fit in with the production process:



- Each time goods are transferred from one step in the production line to the next, one account is debited and the other account is credited.
- It is important to calculate the costs of production so that you know at what price the finished products should be sold!
- Businesses must also distinguish between **direct** and **indirect costs:**
    - **Direct labour costs** (= touch labour) – the wages and salaries of workers who directly make the product, e.g. a factory worker who assembles parts to manufacture a TV.
    - **Indirect labour costs** – the wages and salaries of workers who **do not directly make the product** but who **work in the factory**, e.g. cleaners, supervisors.
    - **Direct material costs** – the costs of the raw materials that are used in manufacturing the final product (they form **part** of the finished product).
    - **Indirect material costs** – costs of items **used in the factory** but that do not form part of the finished product (usually consumable stores). Can you think of some examples?
- **Important formulas:** Prime costs = Direct material costs + Direct labour costs
- **Manufacturing overheads** are all the costs of running the factory (including indirect materials and indirect labour) but **excluding** costs of other parts of the business, e.g. office administrative costs and selling & distribution expenses. These other costs go in the normal Profit and Loss account.
- **Usually some numbers will be left blank** in the ledger accounts and you will be required to calculate them for exam purposes. That's why it is very important to understand the relationships between the various ledger accounts!

Production Cost Statement

- A production cost statement is prepared by a manufacturing business
- It has three main components:
    - Direct material cost
    - Direct labour cost
    - Factory overheads
- Remember that Prime costs = Direct material costs + direct labour costs
- Factory overheads = all other costs (excluding prime costs) that are involved in manufacturing
- Factory overheads **include** indirect materials and indirect labour but **exclude** any non-factory costs
- The goal of the production cost statement is to calculate the total cost of production!
- Understand the difference between fixed and variable costs: fixed costs stay the same as production increases (e.g. rent) while variable costs differ according to the level of production (e.g. raw materials, wages)
- Understand what is meant by a break-even point: the point at which the business earns exactly enough revenue to cover its costs (zero profit or loss). Who can remember the formula for the break-even point?
- Learn the format of the production cost statement well – sometimes the answer book is entirely blank!
- Sometimes the notes appear on the face of the production cost statement; at other times they are shown separately.
- Remember that most of the materials used in the production cost statement can be calculated using the formula Opening Stock + Purchases – Closing Stock (from the periodic inventory system).

Questions

Question 1

Marshall Manufacturers produces parts for electrical appliances that they sell to various retailers at a mark-up of 40%. Their financial year ends on 28 February each year. Prepare the ledger accounts in your answer book using the information that follows.

Information

The following opening balances appeared in the books on 1 March 2012:

- Raw Materials Stock R54 000
- Work-In-Progress R14 000
- Finished Goods R25 000
- Consumable Stores on Hand R1 000

Transactions for the year

1. Total purchases of raw materials were R480 000 (60% on credit).
2. Raw materials worth R21 000 were returned to creditors.
3. Indirect materials bought for the factory on credit were R17 000.
4. Salaries and wages amounted to R220 000. This must be divided in the ratio 5:3:2 between direct labour, indirect labour and salaries of office staff (with direct labour being 5 parts and indirect labour 3).
5. Medical aid deductions for the employees come to R88 000. The business contributes R2 for every R1 contributed by the employee.
6. Office insurance amounted to R64 000 for the year. Factory insurance is double that of the office insurance.
7. Rent amounting to R620 000 was paid during the year. The factory uses 80% of the available floor space.
8. Total sales were R2 800 000 for the year.
9. Other factory expenses were:
   - Electricity R90 000
   - Depreciation on factory equipment R22 480

Closing balances on 28 February 2013:

Raw materials stock	R12 000
Work in progress	?
Finished goods	?
Consumable stores on hand	R3 000

Questions 2

You are provided with information relating to Zola Manufacturing for the financial year ended 29 February 2008. They sell their goods at a mark-up of 100% on cost.

Required

Prepare the Production Cost Statement of Zola Manufacturing for the year, together with the appropriate notes. Use the format provided.

(30)

Information

The following balances appeared, among others, in the ledger on 1 March 2007 (the beginning of the financial year):

Factory equipment - at cost	700 000
Accumulated depreciation on factory equipment	240 000
Office equipment - at cost	180 000
Accumulated depreciation on office equipment	28 000
Stock of finished goods (600 units)	66 000
Work-in-progress stock	30 560
Raw materials stock	40 000

Transactions during the year ended 29 February 2008:

1. Raw materials were imported from England at a cost of R880 000.

2. Customs duty on these goods was paid at 10% of cost price in Rands.

3. The cost of shipping these materials from England was R26 000.

4. Salaries and Wages paid:

   - Direct R52 000
   - Indirect R12 000
   - Office staff and management R60 000
   - 1 Office worker at R12 000 per month

5. Pension Fund:

   - Factory R 5 250
   - Office R 1 500

6. UIF: Factory R 1 040

7. Medical Aid:

   - Factory R 2 500
   - Office R 1 200

8. Consumable stores purchased during the year:

   - Factory R67 000
   - Office R38 000

Answer Booklet Question 1

BALANCE SHEET ACCOUNTS SECTIONS

DR RAW MATERIALS STOCK ACCOUNT CR

WORK-IN-PROGRESS STOCK ACCOUNT

FINISHED GOODS STOCK ACCOUNT

FINAL ACCOUNTS / COST ACCOUNTS SECTION

DIRECT LABOUR COST ACCOUNT

DIRECT MATERIAL COST ACCOUNT

FACTORY OVERHEAD COST ACCOUNT

Answer Booklet Question 2

Zola Manufacturing Notes to the Production Cost Statement for the year ended 28 February 2009		
1	**Direct material costs**	

(7)

2	Direct labour cost	

(5)

3	Manufacturing overhead costs	

(12)