Chapter 9

Job, Batch and Process Costing
Job Costing

Each job is unique

Produce a cost card for each job.

Use the same principles of costing

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>X</td>
</tr>
<tr>
<td>Direct labour</td>
<td>X</td>
</tr>
<tr>
<td>Direct expenses</td>
<td>X</td>
</tr>
<tr>
<td>Overheads absorbed</td>
<td>X</td>
</tr>
<tr>
<td>TOTAL COST</td>
<td>XX</td>
</tr>
</tbody>
</table>
Batch Costing

Each batch is different, but items within batch are identical.

Determine total cost of batch.

Cost per unit : Total Cost of batch / Number of units in a batch.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>X</td>
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<td>TOTAL COST</td>
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</tbody>
</table>
Process Costing - Features

Production is continuous.
Difficult to identify units of production.

Output of one process = input of next process

Closing WIP Period 1 = Opening WIP Period 2

Losses

Part-finished units

By-products and joint products

FIND A COST PER UNIT

VALUE CLOSING INVENTORY
Process Costing – Losses & Gains

**Normal Losses**
- **EXPECTED** to occur
- Do not pick up a share of process costs
- Sometimes sold for scrap – credit process account.

**Abnormal Losses**
- Actual Losses > Normal losses
  - Pickup a share of process costs
  - Valued like a unit of good output
  - Written off in income statement
  - Cost reduced by scrap proceeds

**Abnormal Gains**
- Actual Losses < Normal losses
  - Abnormal gains debit the process account
  - Benefit credits the income statement
  - Remember to Credit the scrap account
Steps for answering questions

1. Draw process account
2. Enter inputs and value (£)
3. Enter Normal Loss units and scrap value
4. Enter Good Output – Units only
5. Balance ‘units’ column with Abnormal Loss or Gain
6. Calculate Average Cost per unit
7. Value Good output and Abnormal Loss or Gain
WIP – Equivalent Units

Any incomplete units at the beginning or the end of a period are valued using the concept of Equivalent Units (EU).

E.g. 100 physical units, half completed = 50EUs

Process costs can be spread evenly between completed and part-completed units.

All material is input is at start of the process

Conversion costs input over time

OWIP valued using AVCO or FIFO
OWIP – Equivalent Units

**AVCO**

Opening inventory values are added to current costs to calculate the average cost per unit

**FIFO**

Opening WIP units are completed first.

Process costs in the period allocated between:
- Opening WIP units
- Units started and completed in period
- Closing WIP Units
Losses part way through production

1. Calculate the normal loss and abnormal loss or gain.
2. Calculate the expected number of EUs. Expected output is actual finished units + abnormal loss.
3. Calculate the cost per EU. Used to value finished units plus abnormal loss.
4. Write up process accounts and normal and abnormal loss accounts.
Joint and by-products

**Joint products are:**
- two or more products, indistinguishable until the split-off point, each having a sufficiently high saleable value to be recognised as a main product
- costs before the split-off point are common to all products and are called joint costs or common costs.

**By-products are:**
- output of insignificant value produced with joint products
- any net income (revenue less further processing costs) is used to decrease the common costs that are shared among the joint products.
Joint and by-products

<table>
<thead>
<tr>
<th>Joint products</th>
<th>By-products</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Joint costs apportioned between the joint products at split-off point to obtain the cost of each product to value inventory and cost of sales</td>
<td>• Do not pick up a share of joint costs (like normal loss)</td>
</tr>
<tr>
<td>• Basis of apportionment usually one of:</td>
<td>• Sales value of by-product treated as reduction in costs instead of income</td>
</tr>
<tr>
<td>– sales value of production</td>
<td>• If by-product has no value at split off point but does have value after further processing, net income (final sales value less further processing costs) used to reduce costs of the process.</td>
</tr>
<tr>
<td>– production units</td>
<td></td>
</tr>
<tr>
<td>– net realisable value</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 10

Service and Operation Costing
Service and operation costing

- HETEROGENEITY
- INTANGIBILITY
- PERISHABILITY
- SIMULTANEOUS PRODUCTION and CONSUMPTION

Output from service industries is different from product of manufacturing.
Suitable Cost Units

Based on their relevance to the service provided

May be necessary to use **composite cost units**

More than one type of cost unit

<table>
<thead>
<tr>
<th>Service</th>
<th>Possible Cost Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel</td>
<td>Cost per guest per night</td>
</tr>
<tr>
<td>Transport</td>
<td>Cost per passenger mile</td>
</tr>
<tr>
<td>College</td>
<td>Cost per student</td>
</tr>
<tr>
<td>Hospital</td>
<td>Cost per patient day / cost per procedure</td>
</tr>
</tbody>
</table>
Service Cost Analysis

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>$</th>
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\[
\text{Cost per service unit} = \frac{\text{Total costs for providing service}}{\text{Number of service units used to provide the service}}
\]

- Labour may be the only direct cost
- Overheads are likely to be absorbed using labour hours