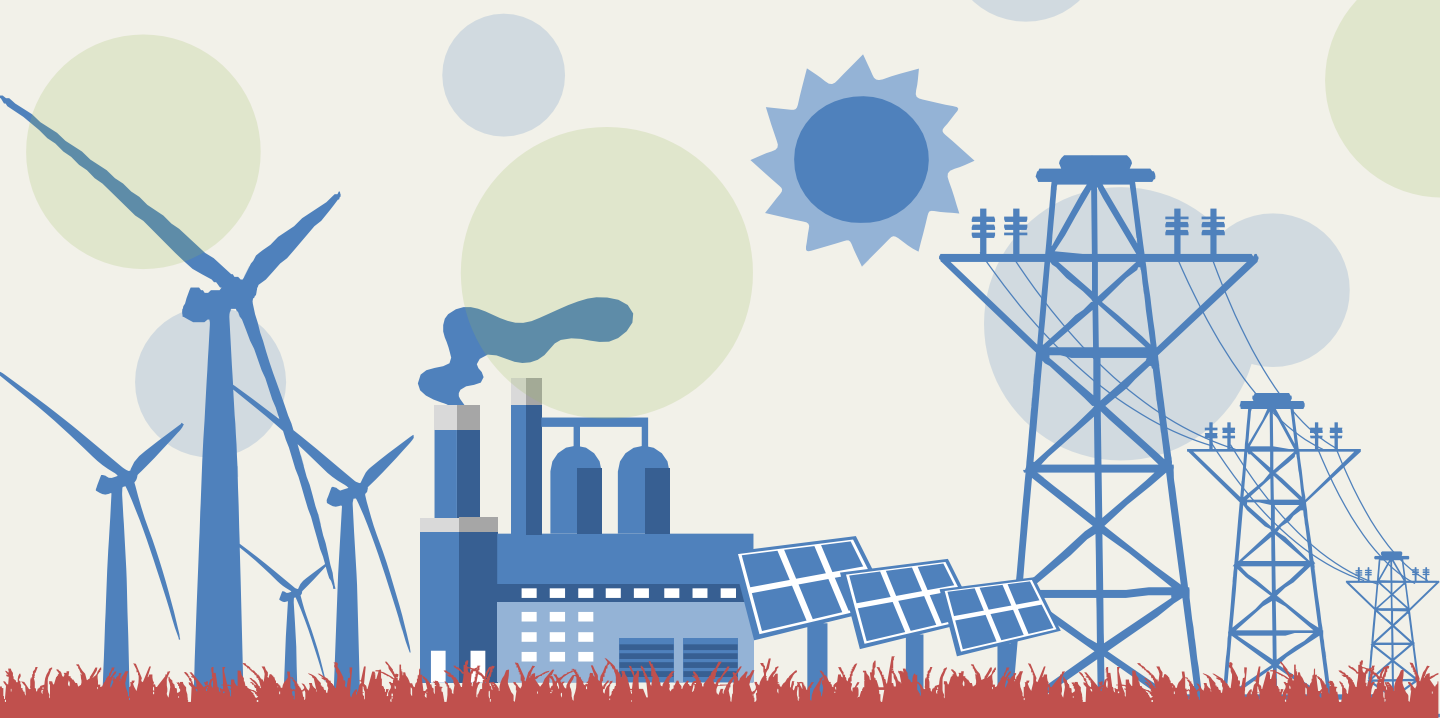


PROCESS COSTING: Steps & Practices



"If you can't describe what you are doing as a process,
you don't know what you're doing."
- *W. Edwards Deming*

**SAMSINOR BINTI IBRAHIM
NUR 'ABIDAH BINTI SOLIHUDDIN
NORHAZMA BINTI NAFI**

PROCESS COSTING: Steps & Practices

**SAMSINOR BINTI IBRAHIM
NUR 'ABIDAH BINTI SOLIHUDDIN
NORHAZMA BINTI NAFI**

Writer

Samsinor binti Ibrahim
Nur `Abidah binti Solihuddin
Norhazma binti Nafi

Published in 2021

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanic methods, without the prior written permission of the writer.

Perpustakaan Negara Malaysia
Samsinor Ibrahim

Cataloguing-in-Publication Data

PROCESS COSTING : Steps & Practices / SAMSINOR BINTI IBRAHIM,
NUR `ABIDAH BINTI SOLIHUDDIN, NORHAZMA BINTI NAFI.

Mode of access: Internet
eISBN 978-967-2241-82-9

1. Manufacturing processes--Costs.
 2. Cost accounting.
 3. Government publications--Malaysia.
 4. Electronic books.
- I. Nur `Abidah Solihuddin. II. Norhazma Nafi.
III. Title.
670

Published by:

Politeknik Merlimau, Melaka
KB1031 Pej Pos Merlimau,
77300 Merlimau Melaka

EDITORIAL BOARD

Managing Editor

Ts Dr. Maria binti Mohammad
Rosheela binti Muhammad Thangaveloo
Nisrina binti Abd Ghafar
Azrina binti Mohmad Sabiri
Zuraida bt Yaacob
Raihan binti Ghazali

Editor

Sabrina binti Isnin

Designer

Samsinor binti Ibrahim
Nur `Abidah binti Solihuddin
Norhazma binti Nafi

Proofreading & Language Editing:

Nor Fazila binti Shamsuddin
Maisarah binti Abdul Latif
Rosheela binti Muhammad Thangaveloo

ACKNOWLEDGEMENT

We would like to record our warm appreciation and thanks to the many parties who have provided encouragement and helpful comments towards the arrangement of this Process Costing: Steps and Practices e-book. It is our hope that this e-book would help students and readers to gain better understanding of this course.

PREFACE

"If you can't describe what you are doing as a process, you don't know what you're doing."

- W. Edwards Deming

Soap-making, paint-making, paper-making, oil refining, rubber processing, chemical manufacturing, food and beverage manufacturing and etc. are example of industries which involve in stages in their manufacturing. The many separate stages of manufacture through which a product passes are known as processes. The process must be continuous, which means that the production of a product or an item can continue uninterrupted for a period of time

The cost of a product or an item at each stage or process is determined by using process costing. According to Chartered Institute of Management Accountant (CIMA), process costing is defined as a basic costing method applicable where goods or services result from a sequence of continuous or repetitive operations or processes to which costs are charged before being averaged over the units produced during the period. It can be simplified that process costing is determining costs, charging costs and averaging costs over the units produced.

The e-book entitled, "***Process Costing: Steps and Practices***" is aimed to present the information, notes and practices of process costing. It comprises of two parts; Part 1 is on the introduction of process costing and process cost account and Part 2 is on work in progress. The information under both parts cover the sub-topic of costing method of the syllabus. In part 2 of the e-book, it comprises of guidelines of the steps that should be considered by the students in preparing the process costing accounts under certain circumstances. Hopefully this e-book will help students and readers enhancing their knowledge and understanding of the process costing itself.

TABLE OF CONTENT

PROCESS COSTING: STEPS AND PRACTICES	ACKNOWLEDGEMENT	iii
	PREFACE	iv
	Part 1	1
	1.1 Introduction to Process Costing	
	1.1.1 Definition	2
	1.1.2 Difference between Job Order Costing and Process Costing	2
	1.1.3 Characteristics	4
	1.2 Process Cost Account	5
	1.2.1 Accounting Entries for Process Cost Account	5
	1.2.2 Accounting Treatment for Process Costing	5
	1.2.3 Process Costing having no Process Loss	5
	1.2.4 Process Costing having Process Losses or Gains	9
	PRACTICE QUESTIONS	21
	Part 2	26
	2.1 Definition Work in Progress	27
	2.2 Equivalent Units	28
	2.3 Process Costing with Closing Work in Progress (WIP)	31
	2.3.1 Closing WIP without any Process Loss or Gain	31
	2.3.2 Closing WIP with Process Loss or Gain	33
	2.4 Process Costing with Opening and Closing Work in Progress	37
2.4.1 Opening and Closing WIP without any Process Loss or Gain	38	
2.4.2 Opening and Closing WIP with any Process Loss or Gain	44	
PRACTICE QUESTIONS	53	
REFERENCES	62	

PART 1

INTRODUCTION:

- 1.1 Introduction to Process Costing
 - 1.1.1 Definition
 - 1.1.2 Difference between Job Order Costing and Process Costing
 - 1.1.3 Characteristics

 - 1.2 Process Cost Account
 - 1.2.1 Accounting Entries for Process Cost Account
 - 1.2.2 Accounting Treatment for Process Costing
 - 1.2.3 Process Costing having no Process Loss
 - 1.2.4 Process Costing having Process Losses or Gains
 - Normal Loss
 - Abnormal Loss
 - Abnormal Gains
-

PART 1

INTRODUCTION

1.1 INTRODUCTION TO PROCESS COSTING

1.1.1 Definition

DEFINITION PROCESS COSTING

Defined by the ICMA as,
"that form of operation costing which applies where standardised goods are produced"

it is method of costing used to determine the **cost of the product at each process**, operation or stage of manufacture.

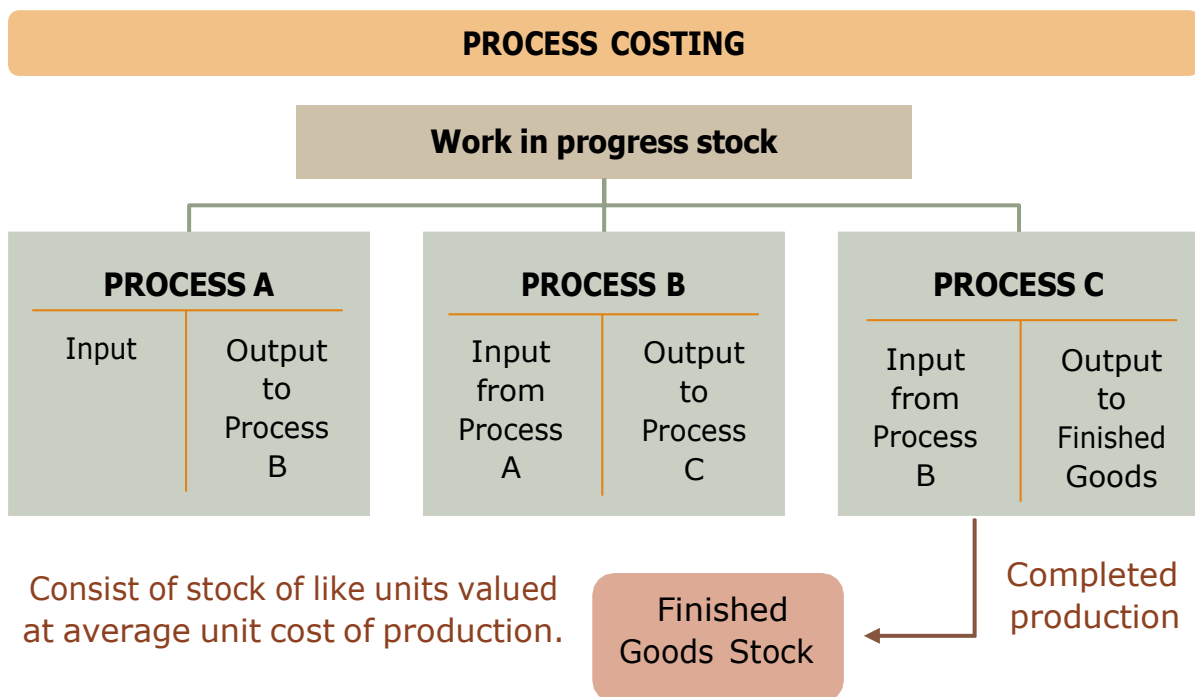
It is used where the production follows a series of sequential process

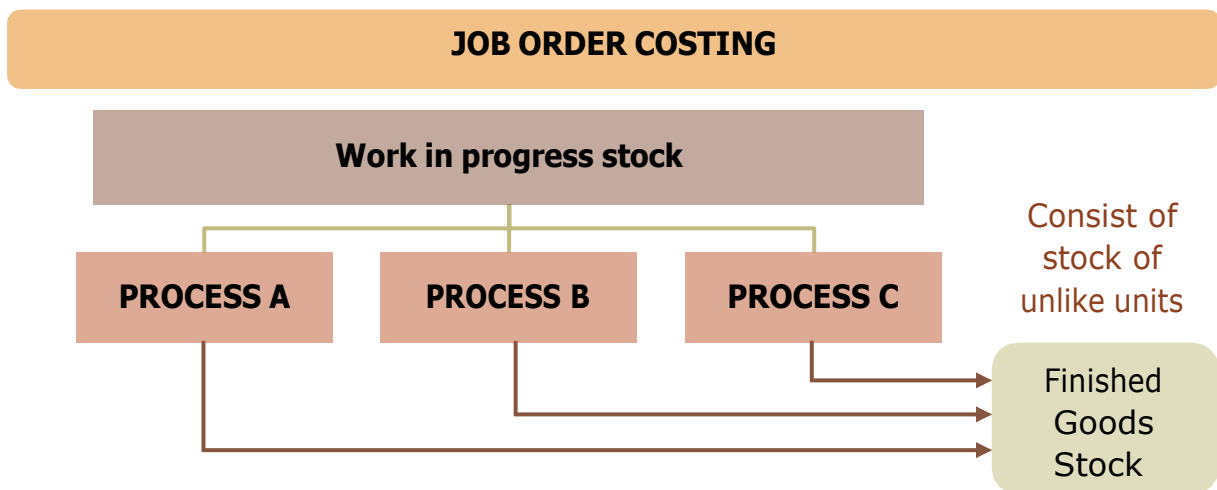
1.1.2 Difference between Job Order Costing Vs Process Costing

Criteria	Job Order Costing	Process Costing
Meaning	Job costing refers to calculating the cost of a special contract, work order where work is performed as per client's or order's instructions.	A costing method, in which the costs which are changed to various processes and operations is ascertained, is known as Process Costing.
Nature	Customized production	Standardized production
Cost Collection	Based on job ordered by customer	Cost collected at the end of the period

Types of product	Heterogeneous	Homogeneous
Transfer of cost	No transfer	Cost is transferred from one process to another.
Applicability	Specific product or job based on customers order	Mass production of similar unit, produced continuously all through that year
Computation of unit cost	Unit cost is obtained by dividing the cost of the job by unit produced	Unit cost is obtained by dividing the departmental, process cost by process production

A comparison of job and process costing.





1.1.3 Characteristics

- Process Costing Method is applicable where the output results from continuous or repetitive operations or processes
- Products are identical and cannot be segregated
- It enables the ascertainment of cost of the product at each process or stage of manufacture
- The output consists of products, which are homogenous
- Production is carried on in different process having a continuous flow

1.2 PROCESS COST ACCOUNT

1.2.1 Accounting entries for process cost account

ACCOUNTING ENTRIES

Dr	Process Account	X		
	Cr	Material	X	
		Wages	X	
		Overhead	X	

On the completion, the process account is closed to the finished goods account.

Dr	Finished Goods	X		
	Cr	Process Account	X	

1.2.2 Accounting treatment for process costing

PREPARATION OF PROCESS COST ACCOUNT

Process costing having no process loss	Process costing having process losses or gains		
	Normal Loss	Abnormal Loss	Abnormal Gain

1.2.3 Process Costing Having No Process Loss

PROCESS COSTING HAVING NO PROCESS LOSS

- All costs of material, labour, direct expenses and apportioned overhead are debited to the process account.
- The total costs of the process are transferred to the second process as raw material (input) for the process.

EXAMPLE 1.1
NO PROCESS LOSS OR GAIN

A product KLM is manufactured by two distinct processes 1 and 2. During the month of July 2018 the following information was obtained in respect of KLM.

	PROCESS 1	PROCESS 2
Output	700 kg	1,200 kg
Material	700 kg	500 kg
Material (RM)	RM 2,800	RM 3,500
Labour (RM)	RM 4,000	RM 4,500
Direct Expenses	RM 1,800	RM 1,300

Overhead is absorbed by the processes on the basis of direct labour cost percentage rate of 100%.

Prepared Process 1 and Process 2 Account.

SOLUTION:

STEP 1: Find Physical Unit

Cost per unit = $\frac{RM2,800}{700 \text{ kg}}$

PROCESS 1

	Quantity (Kg)	Cost per Unit	RM
Material	700	RM 4	2,800
Labour			4,000
Direct Expenses			1,800
Overhead (100% of direct labour)			4,000
Normal Output / Cost	700	RM 18	12,600
(-) Actual Output	(700)		
Abnormal Loss/Gain	0		

$$\begin{aligned}
 \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\
 &= \frac{RM 12,600}{700 \text{ kg}} \\
 &= \text{RM 18 per kg}
 \end{aligned}$$

PROCESS 2

Cost per unit = $\frac{RM\ 3,500}{500\ kg}$

	Quantity (Kg)	Cost per Unit	RM
Input transferred from process 1	700	RM 18	12,600
Material	500	RM 7	3,500
Labour			4,500
Direct Expenses			1,300
Overhead (100% of direct labour)			4,500
Normal Output / Cost	1,200	RM 22	26,400
(-) Actual Output	(1,200)		
	0		

$$\begin{aligned} \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\ &= \frac{RM\ 26,400}{1,200\ kg} \\ &= \text{RM 22 per kg} \end{aligned}$$

STEP 2: Prepare Account by Process

	Quantity (Kg)	Cost per Unit	RM
Material	700	RM 4	2 800
Labour			4 000
Direct Expenses			1 800
Overhead (100% of direct labour)			4 000
Normal Output / Production	700	RM 18	12 600

DEBIT

Process 1 Account							
	Qty	CPU	RM		Qty	CPU	RM
Material	700	4	2,800	Output Transfer to Process 2	700	18	12,600
Labour			4,000				
Direct Expenses			1,800				
Overhead			4,000				
	700		12,600		700		12,600

1.2.4 Process Costing Having Process Loss or Gains

PROCESS COSTING HAVING PROCESS LOSSES OR GAINS

- In many process, some loss is inevitable. Certain production techniques are such a nature that some loss is inherent to the production.
- Wastages of material, evaporation of material is unavoidable in some process.
- But sometimes the losses are also accruing due to negligence of labourer, poor quality raw material, poor technology, etc.
- These are normally called as **AVOIDABLE LOSSES**.
- Basically process losses are classified into two categories **NORMAL LOSS** and **ABNORMAL LOSS**.

NORMAL LOSS

It is the expected loss in processing and is usually expressed as a percentage of input units of materials.

It may be inherent in the process and is unavoidable.

ABNORMAL LOSS

Unexpected abnormal conditions such as plant breakdown, substandard material, carelessness, accident etc.

If it is assumed that losses occur at the end of process, units of abnormal loss are costed exactly as finished output units.

Should not be allowed to affect the cost of production as it is caused by abnormal or unexpected conditions. Treated as an expense and charged in Income Statement.

FORMULA

• **ABNORMAL LOSS = ACTUAL PRODUCTION - NORMAL PRODUCTION**

ABNORMAL GAIN

More output over the expected or normal output realized

Caused due to rise in the efficiency of production department

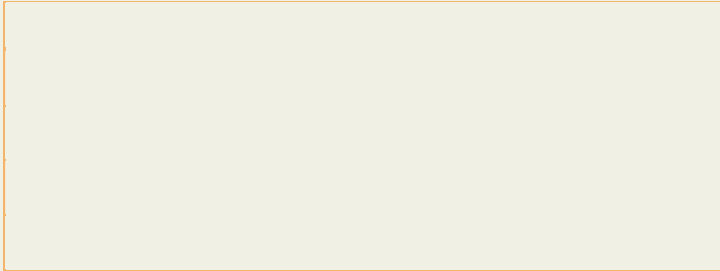
The value of the abnormal gain calculated in the similar manner of abnormal loss.

FORMULA

• ABNORMAL GAIN = ACTUAL PRODUCTION - NORMAL PRODUCTION

**EXAMPLE 1.2
NORMAL LOSS**

Mr Bean’s chocolate Wiggly produce a single product by continuously processing a single raw material. By the end of the month, the data recorded were as below:



Mr Bean allows the staff to eat 5% of the chocolate as they work on Process 1. There was no scrap value. **Prepare** the process accounts and calculate the cost per kg.

SOLUTION:

Cost per unit = $\frac{RM6,000}{4,000 \text{ kg}}$

STEP 1: Find Physical Unit

	Quantity (Kg)	Cost per Unit	RM
Material	4,000	RM 1.50	6,000
Labour			4,100
Overhead			3,200
TOTAL INPUT	4,000		13,300
(-) Normal Loss (5% x 4,000 kg)	(200)	0	0
Normal Output/Production	3,800	3.50	13,300

$$\begin{aligned}
 \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\
 &= \frac{\text{RM 13,300}}{3,800 \text{ kg}} \\
 &= \text{RM 3.50 per kg}
 \end{aligned}$$

STEP 2: Prepare Account by Process

Process 1 Account							
	Qty	CPU	RM		Qty	CPU	RM
Material	4,000	1.50	6,000	Normal Loss	200	0	0
Labour			4,100	Output Transfer to Process 2	3,800	3.50	13,300
Overhead			3,200				
	4,000		13,300		4,000		13,300

**EXAMPLE 1.3
NORMAL LOSS (with scrap value)**

Mr Bean’s chocolate Wiggly produce a single product by continuously processing a single raw material. By the end of the month, the data recorded were as below:

	PROCESS 1
Material	4,000 kg
Material (RM)	RM 6,000
Labour (RM)	RM 4,100
Overhead	RM 3,200

Mr Bean allows the staff to eat 5% of the chocolate as they work on Process 1. The normal loss could be sold for scrap value RM 4.75 per kg.

Prepare the process accounts and calculate the cost per kg.

SOLUTION:

STEP 1: Find Physical Unit

	Quantity (Kg)	Cost per Unit	RM
Material	4,000	RM 1.50	6,000
Labour			4,100
Overhead			3,200
TOTAL INPUT	4,000		13,300
(-) Normal Loss (5% x 4,000 kg)	(200)	4.75	(950)
Normal Output/Production	3,800	3.25	12,350

$$\begin{aligned}
 \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\
 &= \frac{\text{RM 12,350}}{3,800 \text{ kg}} \\
 &= \text{RM 3.25 per kg}
 \end{aligned}$$

STEP 2: Prepare Account by Process

Process 1 Account							
	Qty	CPU	RM		Qty	CPU	RM
Material	4,000	1.50	6,000	Normal Loss	200	4.75	950
Labour			4,100	Output			
Overhead			3,200	Transfer to Process 2	3,800	3.50	13,300
	4,000		13,300		4,000		13,300

Normal Loss Account							
	Qty	CPU	RM		Qty	CPU	RM
Process 1	200	4.75	950	Debtor/Cash	200	4.75	950

**EXAMPLE 1.4
ABNORMAL LOSS**

The product "Honkey" is manufactured in Process 1. The following data are available:

PROCESS 1	
Materials	1,000 kg @ RM 20 per kg
Labour	RM 6,000
Overhead	RM 5,750
Normal Loss	5% of input
Scrap could be sold	RM 8 per kg
Actual Output	900 kg

Prepare the Process 1, Normal Loss and Abnormal Loss Account.

SOLUTION:

STEP 1: Find Physical Unit

	Quantity (Kg)	Cost per Unit	RM
Material	1,000	20	20,000
Labour			6,000
Overhead			5,750
TOTAL INPUT	1,000		31,750
(-) Normal Loss (5% x 1,000)	(50)	8	(400)
Normal Output / Production	950	33	31,350
(-) Actual Output	(900)		
Abnormal Loss	50		

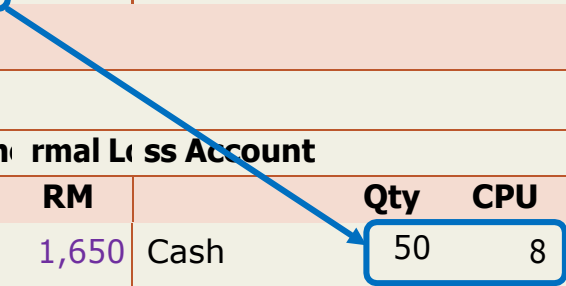
$$\begin{aligned}
 \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\
 &= \frac{\text{RM 31,350}}{950 \text{ kg}} \\
 &= \text{RM 33.00 per kg}
 \end{aligned}$$

STEP 2: Prepare Account by Process

Process 1 Account							
	Qty	CPU	RM		Qty	CPU	RM
Material	1,000	20	20,000	Normal Loss	50	8	400
Labour			6,000	Abnormal Loss	50	33	1,650
Overhead			5,750	Output Transfer to FG (actual output)	900	33	29,700
	1,000		31,750		1,000		31,750

Normal Loss Account							
	Qty	CPU	RM		Qty	CPU	RM
Process 1	50	8	400	Debtor/Cash	50	8	400

Abnormal Loss Account							
	Qty	CPU	RM		Qty	CPU	RM
Process 1	50	33	1,650	Cash	50	8	400
				SOCI (P&L)			1,250
	50		1,650		50		1,650



**EXAMPLE 1.5
ABNORMAL GAIN**

Extra Sdn Bhd manufactures the product "ESB". The following information is available on Process A.

PROCESS A	
Materials	1,000 kg @ RM 20 per kg
Labour	RM 6,000
Overhead	RM 5,750
Normal Loss	10% of input
Scrap could be sold	RM 11.50 per kg
Actual Output	950 kg

Prepared the Process A, Normal Loss and Abnormal Gain Account.

SOLUTION:

STEP 1: Find Physical Unit

	Quantity (Kg)	Cost per Unit	RM
Material	1,000	20	20,000
Labour			6,000
Overhead			5,750
TOTAL INPUT	1,000		31,750
(-) Normal Loss (10% x 1,000)	(100)	11.50	(1,150)
Normal Output / Production	900	34	30,600
(-) Actual Output	(950)		
Abnormal Gain	(50)		

$$\begin{aligned}
 \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\
 &= \frac{\text{RM 30,600}}{900 \text{ kg}} \\
 &= \text{RM 34.00 per kg}
 \end{aligned}$$

STEP 2: Prepare Account by Process

Process A Account							
	Qty	CPU	RM		Qty	CPU	RM
Material	1,000	20	20,000	Normal Loss	100	11.50	1,150
Labour			6,000	Output Transfer to FG (<i>actual output</i>)	950	34	32,300
Overhead			5,750				
Abnormal Gain	50	34	1,700				
	1,100		33,450		1,100		33,450

Normal Loss Account							
	Qty	CPU	RM		Qty	CPU	RM
Process 1	100	11.50	1,150	Abnormal Gain	50	11.50	575
				Debtor/Cash	50	11.50	575

Abnormal Gain Account							
	Qty	CPU	RM		Qty	CPU	RM
Normal Loss	50	11.50	575	Process 1	50	34	1,700
<i>SOCI (P&L)</i>			<i>1,125</i>				
	50		1,700		50		1,700

**EXAMPLE 1.6
COMPREHENSIVE EXAMPLE**

The manufacturing company has two process in its manufacturing factory. Output of process 1 becomes the input for Process 2 and Process 2 production is ready for sale.

Normal loss in each process is expected to be at 5% of input for Process 1 and 10% of input for Process 2. Scrap value is RM 3 per unit.

Relevant information for period Y is given below:

	PROCESS 1	PROCESS 2
Materials	3,000 kg @ RM 15 000	-
Added Material		RM 2,535
Labour (RM)	RM 6,500	RM 10,000
Overhead	RM 6,025	RM 12,000
Actual Output	1,750 kg	1,725 kg

Prepare the following accounts:

- a) Process Account I
- b) Process Account II
- c) Normal Loss Account
- d) Abnormal Loss Account
- e) Abnormal Gain Account
- f)

SOLUTION:

STEP 1: Find Physical Unit

PROCESS 1

	Quantity (Kg)	Cost per Unit	RM
Material	3,000	RM 5	15,000
Labour			6,500
Overhead			6,025
Total Input	3,000		27,525
(-) Normal Loss (5% x 3,000kg)	(150)	3	(450)
Normal Output / Production	2,850	9.50	27,075
(-) Actual Output	(1,750)		
Abnormal Loss	1,100		

$$\begin{aligned} \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\ &= \frac{\text{RM 27,075}}{2,850 \text{ kg}} \\ &= \text{RM 9.50 per kg} \end{aligned}$$

PROCESS 2

	Quantity (Kg)	Cost per Unit	RM
Output from Process 1	1,750 (actual output)	RM 9.50	16,625
Added Material			2,535
Labour			10,000
Overhead			12,000
TOTAL	1,750		41,160
(-) Normal Loss (10% x 1,750)	(175)	3	(525)
Normal Output / Production	1,575	25.80	40,635
(-) Actual Output	(1,725)		
Abnormal Gain	(150)		

$$\begin{aligned} \text{Cost per unit} &= \frac{\text{Cost incurred}}{\text{Normal Output (kg)}} \\ &= \frac{\text{RM 40,635}}{1,575 \text{ kg}} \\ &= \text{RM 25.80 per unit} \end{aligned}$$

STEP 2: Prepare Account by Process

Process 1 Account

	Qty	CPU	RM		Qty	CPU	RM
Material	3,000	5	15,000	Normal Loss	150	3	450
Labour			6,500	Abnormal Loss	1,100	9.50	10,450
Overhead			6,025	Output Transfer to Process 2	1,750	9.50	16,625
	3,000		27,525		3,000		27,525

Process 2 Account							
	Qty	CPU	RM		Qty	CPU	RM
Input from Process 1	1,750	9.50	16,625	Normal Loss	175	3	525
Added Material			2,535	Output			
Labour			10,000	Transfer to FG	1,725	25.80	44,505
Overhead			12,000				
Abnormal Gain	150	25.80	3,870				
	1,975		45,030		1,975		45,030

Normal Loss Account							
	Qty	CPU	RM		Qty	CPU	RM
Process 1	150	3	450	Cash-Process 1	150	3	450
Process 2	175	3	525	Cash-Process 2	25	3	75
				Abnormal Gain	150	3	450
	325		975		325		975

Abnormal Loss Account							
	Qty	CPU	RM		Qty	CPU	RM
Process 1	1,100	9.50	10,450	Cash	1,100	3	3,300
				SOCI (P&L)			7,150
	1,100		10,450		1,100		10,450

Abnormal Gain Account							
	Qty	CPU	RM		Qty	CPU	RM
Normal Loss	150	25.80	3,870	Process 2	150	25.80	3,870
SOCI (P&L)			3,420				
	150		3,870		150		3,870

ENHANCEMENT EXERCISE 1.1

Sejahtera Sdn Bhd manufacture products which pass through several distinct process. The following information is available from records:

	PROCESS 1	PROCESS 2
Direct Materials	RM 7 000	RM 6 000
Direct Labour	RM 4 500	RM 3 500
Direct Expenses	RM 1 500	RM 2 000
Factory Overhead	RM 2 500	RM 1 400

The quantities of input and output were as follows:

	PROCESS 1 (litre)	PROCESS 2 (Litre)
Input	1 000	600
Output	1 000	1 600

Required:

Prepare process account for Sejahtera Sdn Bhd.

Answers:



PRACTICE QUESTIONS

- BERSIH SDN BHD
- BERSERI SDN BHD
- ALAM MESRA SDN BHD
- LYANG SDN BHD
- MALAQAT SDN BHD

ANSWERS:



PRACTICE QUESTIONS

QUESTION 1Bersih Sdn Bhd

Bersih Sdn Bhd manufactures product which pass through several distinct processes. The following information is available for the process 1.

	PROCESS 1
Input 600 kg of materials costing	RM 6 000
Direct Labour	RM 1 500
Direct Expenses	RM 2 200
Factory Overhead	RM 1 034

Additional Information:

Normal loss is estimated to be 5% of input. Normal loss may be sold as scrap for RM 2.50 per kg. The actual output for this process was 550 kg.

Required:

Prepare Process 1 account and abnormal loss account.

QUESTION 2 Berseri Sdn Bhd

Berseri Sdn Bhd manufactures product which pass through several distinct processes. The following information is available for the process 1.

	PROCESS 1
Input 600 kg of materials costing	RM 6 000
Direct Labour	RM 1 500
Direct Expenses	RM 2 200
Factory Overhead	RM 1 034

Additional Information:

Normal loss is estimated to be 5% of input. Normal loss may be sold as scrap for RM 2.50 per kg. The actual output for this process was 580 kg.

Required:

Prepare Process 1 account and abnormal gain account.

QUESTION 3 Alam Mesra Sdn Bhd

Alam Mesra Sdn Bhd produces products using two sequential processes. In July 2014, the following information was obtained:

- 12 000 kg of raw materials were used in **Process I** at the cost of RM 8.50 per kg
- Direct labour cost amounted to RM 6 000
- Overhead is absorbed at 200% of direct labour cost.
- 2 000 kg of normal loss occurred.
- The scrap can be sold at RM5 per kg.
- 11 000 kg of output were transferred to the next process.
- No opening or ending work in the process.

You are required to:

- a) Calculate the physical units for Process I
 - b) Prepare Process I Account
 - c) Prepare Normal Loss Account
 - d) Prepared Abnormal Gain or Loss Account
-

QUESTION 4 Lyang Sdn Bhd

Lyang Sdn Bhd produces products passing two departments before becoming finished goods. The following information was obtained during the production operation:

	Mix Department	Bake Department
Direct Materials	5 500 kg @ RM 0.50 per kg	5 000kg @ RM 0.90 per kg
Direct Labour	RM 880	RM 2 500
Factory Overhead	150% on labour cost	100% on labour cost

The normal loss is estimated at 20% of input in Process 1 and 10% of input in Process 2. All losses were sold at RM 0.30 per kg from Process 1 and RM 0.70 per kg from process 2. Output process 1 is 4 000kg and 8 350 kg from Process 2. The company has no opening and closing work in process during the period.

- Calculate whether the company manage to obtain Abnormal Gain or suffer Abnormal Loss in Process 1 and Process 2
- Record the transactions in the Process 1 and Process 2 account
- Record the transaction in the Normal Loss, Abnormal Loss and Abnormal Gain account.

QUESTION 5 Malaqat Sdn Bhd

Malaqat Sdn Bhd has a product named 'CHAQ'. The product of this company went through 3 distinct process. The following information is obtained from the accounts for the month ending 31 December 2019.

	PROCESS 1 (RM)	PROCESS 2 (RM)	PROCESS 3 (RM)
Direct material	7 800	5 940	8 886
Direct Labour	6 000	9 000	12 000
Overhead	6 000	9 000	12 000

3 000 units at RM 3 each were introduced to Process 1. There was no stock of materials or WIP. The output of each process passes directly to the next process and finally to finished stock.

	Output	Normal loss (%)	Scrap value
Process 1	2 850	5%	2
Process 2	2 520	10%	4
Process 3	2 250	15%	5

You are required to prepare:

- a) Process Account
- b) Normal Loss Account
- c) Abnormal Gain or Loss Account

PART 2

WORK IN PROGRESS (WIP):

- 2.1 Definition Work in Progress
 - 2.2 Equivalent Units
 - 2.3 Process Costing with Closing Work in Progress (WIP)
 - 2.3.1 Closing WIP without any Process Loss or Gain
 - 2.3.2 Closing WIP with Process Loss or Gain
 - 2.4 Process Costing with Opening and Closing Work in Progress
 - 2.4.1 Opening and Closing WIP without any Process Loss or Gain
 - Average Method (AVCO)
 - First in First Out Method (FIFO)
 - 2.4.2 Opening and Closing WIP with any Process Loss or Gain
 - Average Method (AVCO)
 - First in First Out Method (FIFO)
-

PART 2

VALUATION OF WORK IN PROGRESS [WIP]

2.1 DEFINITION WORK IN PROGRESS

DEFINITION WORK IN PROGRESS (WIP)

Cost of unfinished goods in the manufacturing process including labor, raw materials and overhead.

Opening WIP is the number of incomplete units at the start of a process.

Closing WIP is the number at the end of the process.



To show production process completely, we have to convert incomplete units to **EQUIVALENT UNITS**

WORKS-IN-PROGRESS VS. FINISHED GOODS

	WORK IN PROGRESS	FINISHED GOODS
Inventory's stage of relative completion	Refers to the intermediary stage of inventory in which inventory has started its progress from the beginning as raw materials and is currently undergoing development or assembly into the final product.	Refer to the final stage of inventory, in which the product has reached a level of completion where the subsequent stage is the sale to a customer.

2.2 EQUIVALENT UNITS

DEFINITION EQUIVALENT UNITS

Equivalent units is a measure of the work done during the period. It is expressed in full units and used to determine the unit cost of a product in process costing.

Equivalent units should be calculated separately for each element of cost (**material, labour and overhead**) because the percentage of completion of the different cost component may be different.

FORMULA

- **EQUIVALENT UNIT = ACTUAL NUMBER OF UNITS IN PROGRESS x PERCENTAGE OF WORK COMPLETED**

EXAMPLE 2.1

If 1,000 cars are 40% complete then the equivalent number of completed cars would be:

SOLUTION:

$$\begin{aligned}
 \text{Equivalent Unit} &= \text{Actual no of units in progress} \times \% \text{ of work completed} \\
 &= 1,000 \text{ units} \times 40\% \\
 &= \mathbf{400 \text{ cars}}
 \end{aligned}$$

EXAMPLE 2.2

600 units were produced from Process A

It was estimated that of the 600 units:

- 200 units are complete
- 400 units are progress and 50% complete

The total cost incurred is RM 4,000.

Calculate:

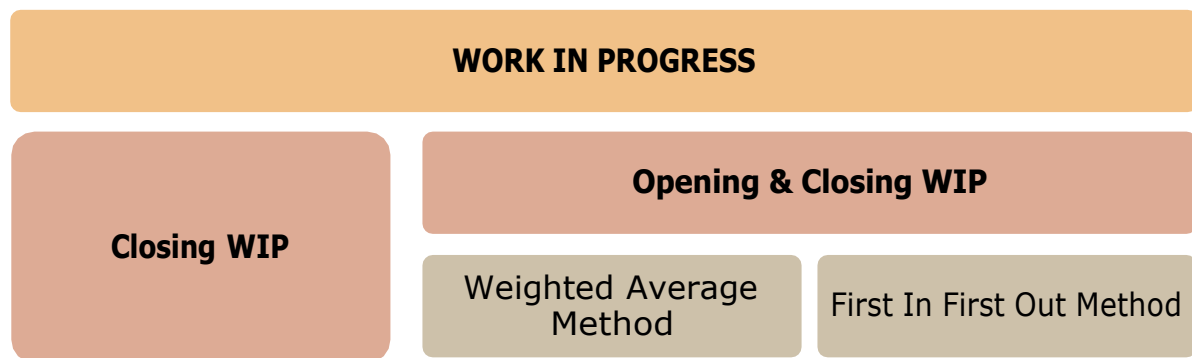
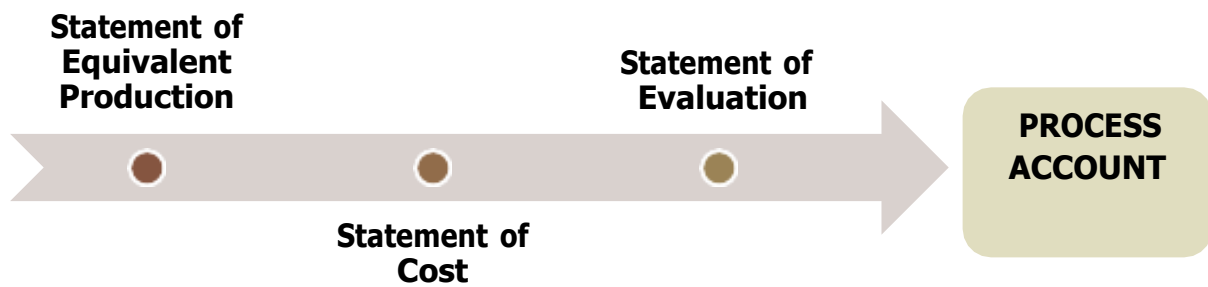
- Equivalent units
- Cost per unit

SOLUTION:

$$\begin{aligned}
 \text{Equivalent Unit} &= \text{Actual no of units in progress} \times \% \text{ of work completed} \\
 &= 400 \text{ units} \times 50\% \\
 &= \mathbf{200 \text{ units}}
 \end{aligned}$$

$$\begin{aligned}
 \text{Cost per unit} &= \frac{\text{Total Cost}}{\text{Equivalent units} + \text{Completed units}} \\
 &= \frac{\text{RM4,000}}{200 \text{ units} + 200 \text{ units}} \\
 &= \mathbf{RM 10 \text{ per unit}}
 \end{aligned}$$

2.2.1 Preparation of Statements for WIP



WEIGHT AVERAGE COST (AVCO)

- Combines costs and equivalent units of a current period with the costs and the equivalent units in prior period.
- OWIP is analyzed into its cost elements.

FIRST IN FIRST OUT (FIFO) METHOD

- Cost per unit is calculated based on the current period cost and the current period production only.
- Cost of the opening WIP is added separately to completed production
- Degree of completion of OWIP must be known to determine the amount of work needed to complete the OWIP

2.3 PROCESS COSTING WITH CLOSING WORK IN PROGRESS

CLOSING WORK IN PROGRESS

Closing WIP is converted into equivalent units on the basis of estimates on degree of completion of materials, labour and production overhead.

Afterwards, the cost per equivalent units is calculated and the same is used to value the finished output transferred and the closing WIP

2.3.1 Closing Work in Progress without Any Process Loss or Gain

EXAMPLE 2.3

Prepare statement of equivalent of production, statement of cost, Statement of Evaluation and process account from the following data:

Unit Introduce	4,000
Output (unit)	2,400
Process Cost (RM)	
Material	RM 7,040
Labour	RM 10,080
Overhead	RM 6,720
Degree of completion for closing WIP:	
Material	70%
Labour	60%
Overhead	60%

SOLUTION:

STEP 1: Find the CWIP unit

Unit Introduce	4 000
(-) Unit Completed and transferred	(2 400)
CWIP unit	1 600

STEP 2: Statement of Equivalent Production

Output	EQUIVALENT UNIT						
	Material		Labour		Overhead		
	Units	%	Equ. unit	%	Equ. unit	%	Equ. unit
Unit completed	2,400	100	2,400	100	2,400	100	2,400
CWIP	1,600	70%	1,120 <i>(1600 x 0.7)</i>	60%	960 <i>(1600 x 0.6)</i>	60%	960 <i>(1600 x 0.6)</i>
	4,000		3,520		3,360		3,360

STEP 3: Statement of Cost

ELEMENT OF COST	COST (RM)	EQUIVALENT UNIT	COST PER EQUIVALENT UNIT (RM)
Material	7,040	3,520	2 <i>(7,040 / 3,520)</i>
Labour	10,080	3,360	3 <i>(10,080 / 3,360)</i>
Overhead	6,720	3,360	2 <i>(6,720 / 3,360)</i>
	23,840		7

STEP 4: Statement of Evaluation

	RM
Completed Unit (2,400 x RM 7)	16,800
Closing Work in progress:	
Material (1,120 x RM 2)	2,240
Labour (960 x RM 3)	2,880
Overhead (960 x RM 2)	7,040
	23,840

STEP 5: Process Account

Process Account							
	Qty	CPU	RM		Qty	CPU	RM
Material	4,000		7,040	Output Transfer	2,400	7	16,800
Labour			10,080	CWIP c/d	1,600		7,040
Overhead			6,720				
	4,000		23,840		4,000		23,840

2.3.2 Closing Work in Progress with Process Loss or Gain

EXAMPLE 2.4

Bino Sdn Bhd produces a product called 'RIAZ', which involves both Department X and Y. The following information on the two departments are available as follows:

Department X		
Unit Introduced		2,000 units
Unit completed and transfer to Department Y		1,400 units
Closing WIP (units)		460 units
<u>Degree of completion:</u>		
Material	75%	
Labour	50%	
Overhead	50%	
Normal Loss is 5% of input with scrap value of RM 10 each.		

Following is the further information on Process X:

Cost of the 2 000 units	RM 58,000
Additional direct material	RM 14,400
Direct labour	RM 33,400
Overhead	RM 16,700

You are required to prepare:

- Statement of Equivalent Production
- Statement of Cost and Evaluation
- Process X account.

SOLUTION:

STEP 1: Determine abnormal loss or abnormal gain

	Quantity (unit)
Input	2,000
(-) Closing WIP	(460)
Total Output	1,540
(-) Normal Loss (% x input) (5% x 2,000 units)	(100)
Normal Output / Production	1,440
(-) Actual Output (<i>Unit Completed</i>)	(1,400)
Abnormal Loss	40

STEP 2: Statement of Equivalent Production

Output	EQUIVALENT UNIT						
	Material		Labour		Overhead		
	Units	%	Equ. unit	%	Equ. unit	%	Equ. unit
Unit completed	1,400	100	1,400	100	1,400	100	1,400
CWIP	460	75%	345 <i>(460 x 0.75)</i>	50%	230 <i>(460 x 0.5)</i>	50%	230 <i>(460 x 0.5)</i>
	1,860		1,785		1,670		1,670

STEP 3: Statement of Cost

ELEMENT OF COST	COST (RM)	EQUIVALENT UNIT	COST PER EQUIVALENT UNIT (RM)
Material	71,400	1,785	40 <i>(71,400 / 1,785)</i>
Labour	33,400	1,670	3 <i>(33,400 / 1,670)</i>
Overhead	16,700	1,670	2 <i>(16,700 / 1,670)</i>
	121,500		70

	RM
Input	58,000
Added Direct Material	14,400
	72,400
(-) Normal Loss (unit x scrap value) (100 unit x RM 10)	(1,000)
Total Cost	71,400

STEP 4: Statement of Evaluation

		RM
Completed Unit (1,400 x RM 70)		98,000
Abnormal Loss (40 x RM 70)		2,800
Closing Work in progress:		
Material (345 x RM 40)	13,800	
Labour (230 x RM 20)	4,600	
Overhead (230 x RM 10)	2,300	20,700
		121,500

STEP 5: Process Account

Process Account							
	Qty	CPU	RM		Qty	CPU	RM
Input	2,000		58,000	Normal loss	100	10	1,000
Material added			14,400	Abnormal loss	40	70	2,800
Labour			33,400	Output Transfer	1,400	70	98,000
Overhead			16,700	CWIP c/d	460		20,700
	4,000		122,500		2,000		122,500

2.4 PROCESS COSTING WITH OPENING AND CLOSING WORK IN PROGRESS

OPENING AND CLOSING WORK IN PROGRESS

Since the production is a continuous activity there is possibility of opening as well as closing work in progress.

The procedure of conversion of opening WIP will vary depending on the method of apportionment of costs followed **AVERAGE COST METHOD** and **FIFO**.

DIFFERENCES BETWEEN WEIGHTED AVERAGE METHOD AND FIFO METHOD

	WEIGTED AVERAGE	FIFO
Units Completed and transferred out	Total units completed this period	Total units finished from Opening WIP + Units started and completed this period
Equivalent Units based on	Units completed this period + Units in Closing WIP	Units form Opening WIP + Units started and completed + Closing WIP
Cost per Equivalent Units based on	Opening WIP Costs + Cost added this period	Costs added this period only
Assign costs using	Equivalent Units x Cost per Equivalent Units for units complete and units in closing WIP	Opening WIP + (Equivalent Units x Cost per equivalent units for OWIP, Units started and CWIP)

2.4.1 Opening and Closing Work in Progress without Any Process Loss or Gain

**EXAMPLE 2.5
AVERAGE METHOD**

Prepared a statement of equivalent production, statement of cost, process account from the following information using the average method:

	Quantity	RM
Opening Stock	50,000 units	
Material		RM 25,000
Labour		RM 10,000
Overhead		RM 25,000
Unit Introduced	200,000 units	
Material		RM 100,000
Labour		RM 75,000
Overhead		RM 70,000
During the period, 60 000 units were completed and transferred to Process B.		
Closing stock	100,000 units	
Degree of completion:		
Material		100%
Labour		50%
Overhead		40%

SOLUTION:

STEP 1: Find the WIP unit

	Unit
Opening stock	50,000
Unit Introduce	200,000
	250,000
(-) Closing Stock	(100,000)
Unit Completed and transferred	150,000

STEP 2: Statement of Equivalent Production

Output	EQUIVALENT UNIT						
	Material		Labour		Overhead		Equ. unit
	Units	%	Equ. unit	%	Equ. unit	%	
OWIP	50,000	-	-	-	-	-	-
Unit completed	150,000	100	150,000	100	150,000	100	150,000
CWIP	100,000	100	100,000	50	50,000	40	40,000
			250,000		200,000		190,000

STEP 3: Statement of Cost

ELEMENT OF COST	COST (RM)		EQUIVALENT UNIT	COST PER EQUIVALENT UNIT (RM)
	OWIP	CURRENT		
Material	25,000	100,000	250,000	0.5
Labour	10,000	75,000	200,000	0.425
Overhead	25,000	70,000	190,000	0.5
	60,000	245,000		1.425

STEP 4: Statement of Evaluation

		RM
Completed Unit (150,000 x RM 1.425)		213,750
Closing WIP:		
Material (100,000 x RM 0.50)	50,000	
Labour (50,000 x RM 0.425)	21,250	
Overhead (40,000 x RM 0.50)	20,000	91,250
		305,000

STEP 5: Process Account

Process Account							
	Qty	CPU	RM		Qty	CPU	RM
OWIP b/d	50,000		60,000	Output Transfer	150,000	1.425	213,750
Material	200,000	0.5	100,000	CWIP c/d	100,000		91,250
Labour			75,000				
Overhead			70,000				
	250,000		305,000		250,000		305,000

EXAMPLE 2.6
FIRST IN FIRST OUT

From the following details prepare a statement of equivalent production and statement of cost.

	Quantity	RM
Opening Stock	10,000 units	
Material (100% completed)		RM 6,500
Labour (50% completed)		RM 3,000
Overhead (50% completed)		RM 2,500
Unit Introduced	9,000 units	
Material		RM 112,500
Labour		RM 89,000
Overhead		RM 43,500
During the period, 8 000 units were completed and transferred to next process.		
Closing stock	2,000 units	
<u>Degree of completion:</u>		
Material	100%	
Labour	70%	
Overhead	60%	

SOLUTION:

STEP 1: Find the WIP unit

	Quantity (unit)
Opening stock	1,000
Unit Introduce	9,000
	10,000
(-) Closing Stock	(2,000)
Unit Completed and transferred	8,000

STEP 2: Statement of Equivalent Production

Output	EQUIVALENT UNIT						
	Material		Labour		Overhead		
	Units	%	Equ. unit	%	Equ. unit	%	Equ. unit
OWIP	1,000	100	(1,000)	50	(500)	50	(500)
Unit completed	8,000	100	8,000	100	8,000	100	8,000
CWIP	2,000	100	2,000	70	1,400	60	1,200
			9,000		8,900		8,700

STEP 3: Statement of Cost

ELEMENT OF COST	COST (RM)	EQUIVALENT UNIT	COST PER EQUIVALENT UNIT (RM)
Material	112,500	9,000	12.50
Labour	89,000	8,900	10.00
Overhead	43,500	8,700	5.00
	245,000		27.50

STEP 4: Statement of Evaluation

		RM
Completed RM (Actual Output transferred)		212,000
OWIP + Current Cost - CWIP		
12,000 + 245,000 - 45,000		
Closing WIP:		
Material (2,000 x RM 12.50)	25,000	
Labour (1,400 x RM 10.00)	14,000	
Overhead (1,200 x RM 5.00)	6,000	45,000
		257,000

STEP 5: Process Account

Process 1 Account							
	Qty	CPU	RM		Qty	CPU	RM
OWIP b/d	1,000	12	12,000	Output Transfer	8,000		212,000
Material	9,000	12.50	112,500	CWIP c/d	2,000		45,000
Labour			89,000				
Overhead			43,500				
	10,000		257,000		10,000		257,000

2.4.2 Opening and Closing Work in Progress with Any Process Loss or Gain

Adjustments are made for normal loss, abnormal loss and abnormal gain in calculation of equivalent point

Normal spoilage cost is borne by the good units produced.

Abnormal loss units are valued like good units.

**EXAMPLE 2.7
AVERAGE METHOD**

The following information is available on Process B for the period 30 June 2018:

	kg	RM
Opening WIP	50	510
Transferred from Process A		250
Direct material	-	125
Direct labour	-	105
Factory overhead	-	30
Cost incurred during the period:		
Transfer from Process A	750	8 000
Material added	100	41.50 per kg
Labour		2 250
Overhead		1 500
Closing WIP		100 kg
<u>Degree of completion :</u>	Material	100%
	Labour	60%
	Overhead	40%
Normal loss is 75 kg with scrap value of RM 2 per kg		
Transfer to next process 775 kg		

SOLUTION:

STEP 1: Determine abnormal loss or abnormal gain

	Quantity (unit)
Opening WIP	50
Input from Process A	750
Material added	100
	900
(-) Closing WIP	(100)
Total Output	800
(-) Normal Loss	(75)
Normal Output / Production	725
(-) Actual Output (<i>Unit Completed</i>)	(775)
Abnormal Gain	(50)

STEP 2: Statement of Equivalent Production

Output		EQUIVALENT UNIT							
		Material P1		Material P2		Labour		Overhead	
	Units	%	EQ	%	EQ	%	EQ	%	EQ
Unit completed	775	100	775	100	775	100	775	100	775
CWIP	100	100	100	100	100	60	60	40	40
(-) Abnormal Gain	50	100	(50)	100	(50)	100	(50)	100	(50)
			825		825		785		765

Abnormal gain is always fully processed and is deducted from equivalent production unit of each element.

STEP 3: Statement of Cost

ELEMENT OF COST	COST (RM)		EQUIVALENT UNIT	COST PER UNIT (RM)
	OWIP	CURRENT		
Transfer from P1	250	8,000	825	10
Material added	125	4,000	825	5
Labour	105	2,250	785	3
Overhead	30	1,500	765	2
	16,260			20

	RM
Material Process II	4 150
(-) Normal Loss (unit x scrap value) (75 unit x RM 2)	(150)
Total Cost	4 000

Scrap value of normal loss is deducted from the direct material cost

STEP 4: Statement of Evaluation

		RM
Actual Output transferred to Process III (775 x RM 20)		15,500
Closing WIP: Material P1 (100 x RM 10)	1,000	
Material PII (100 x RM 5)	500	
Labour (60 x RM 3)	180	
Overhead (40 x RM 2)	80	1,760
Less : Abnormal Gain		
Material Process I [50 x RM 10]	500	
Material Process II [50 x RM 5]	250	
Labour [50 x RM 3]	150	
Overhead [50 x RM 2]	100	(1,000)
		16,260

STEP 5: Process Account

Process 2 Account							
	Qty	CPU	RM		Qty	CPU	RM
OWIP	50		510	Normal loss	75	2	150
Transfer P1	750		8,000	Output Transfer	775	20	15,500
Material added	100		4,150	CWIP c/d	100		1,760
Labour			2,250				
Overhead			1,500				
Abnormal Gain	50		1,000				
	950		17,410		950		17,410

EXAMPLE 2.8
FIRST IN FIRST OUT

The following information relates to Process II for the period ending June 2019.

	Unit	RM
Opening Stock	1 000	14 400
Transferred from Process I	42 600	330 890
Direct material used in Process II	-	160 693
Direct labour	-	79 240
Factory overhead	-	39 620
Unit scrapped	2 200	
Transfer to Process III	37 800	
Closing stock	3 600	

Degree of completion:

	Opening Stock	Closing Stock	Scrap
Material	70%	80%	100%
Labour	50%	60%	80%
Overhead	50%	60%	80%

There was a normal loss of 5% of production and units scrapped were sold at RM 3 each.

You are required to show all the relevant statement and Process II Account.

SOLUTION:

STEP 1: Determine abnormal loss or abnormal gain

	Quantity (unit)
Opening WIP	1 000
Input from Process I	42 600
	43 600
(-) Closing WIP	(3 600)
Total Output	40 000
(-) Normal Loss <i>(5% of production)</i> (5% x 40 000 units)	(2 000)
Normal Output / Production	38 000
(-) Actual Output <i>(Unit Completed)</i>	(37 800)
Abnormal Loss	200

STEP 2: Statement of Equivalent Production

Output		EQUIVALENT UNIT							
		Material P1		Material P2		Labour		Overhead	
	Units	%	EQ	%	EQ	%	EQ	%	EQ
OWIP	1,000	100	[1 000]	70	[700]	50	[500]	50	[500]
Unit completed	37,800	100	37,800	100	37,800	100	37,800	100	37 800
CWIP	3,600	100	3,600	80	2,880	60	2,160	60	2,160
Abnormal Loss	200	100	200	100	200	80	160	80	160
			40,600		40,180		39,620		39,620

STEP 3: Statement of Cost

Scrap value of normal loss is deducted from the direct material cost.

STEP 4: Statement of Evaluation

		RM
Actual Output transferred to Process III		
OWIP + Current Cost – CWIP – Abnormal Loss [14,400 + 604,443] – 46,908 – 2,880		569,055
Abnormal Loss :		
Material Process I [200 x 8.15]	1,630	
Material Process II [200 x 3.85]	770	
Labour [160 x RM 2]	320	
Overhead [160 x RM 1]	160	2,880
Closing WIP:		
Material P1 (3 600 x RM 8.15)	29,340	
Material PII (2 880 x RM 3.85)	11,088	
Labour (2 160 x RM 2)	4,320	
Overhead (2 160 x RM 1)	2,160	46,908
		618,843

STEP 5: Process Account

Process Account							
	Qty	CPU	RM		Qty	CPU	RM
OWIP	1 000		14 400	Normal	2 000	3	6 000
				loss			
Material P1	42 600		330 890	Abnormal	200		2 880
				loss			
Material P2			160 693	Output	37 800		569 055
				Transfer			
Labour			79 240	CWIP c/d	3 600		46 908
Overhead			39 620				
	43,600		624,843		43,600		624,843

ENHANCEMENT EXERCISE 2.1

The following data is provided by Tom and Jerry Corporation's Mixing department for the 1000 units of product still in the work - in - progress at the end of the period. Assume there was no beginning inventory.

Direct materials	90% complete
Direct labour	30% complete
Overhead	60% complete

Calculate the equivalent units for each of the three product costs – direct materials, direct labour and overhead.

ENHANCEMENT EXERCISE 2.2

Hassan Onn Ltd. manufactures a “Mes” product in Departments K and B. The following are the data for department B for the month of July 2019:

	Unit	RM
From Department K	20 000	20 000
Material added		5 000
Labour		13 600
Overhead		20 400
Unit Completed	15 000	
Closing Work in progress	5 000	
Degree of completion: Direct Material	100%	
Direct Labour	40%	
Overhead	40%	

Show the unit produced and cost.

Answers:



PRACTICE QUESTIONS

- DAISY SDN BHD
- BAKING DEPT
- WAKAWAKA BHD
- MAA SDN BHD
- PALMA BHD
- SERBAGUNA SDN BHD
- DELIMA PINK SDN BHD

ANSWERS:



PRACTICE QUESTIONS

QUESTION 1

Daisy Sdn Bhd

	Unit	RM
Opening Stock	200	
Degree of completion in OWIP		
Material	100%	2 000
Labour	20%	400
Overhead	20%	400
Unit started into production during the period	1 800	
Cost added during the period:		
Material		18 360
Labour		19 845
Overhead		19 467
Closing Work in progress	100	
Degree of completion:		
Direct Material	100%	
Direct Labour	30%	
Overhead	30%	

You are required to show all the relevant statement and the Process Account

QUESTION 2 Baking Department of Traditional Cakes Enterprise

The data for Baking Department of Traditional Cakes Enterprise goes through two processes: A and B. For the month of April 2019, the following information applies to Process A.

		RM
Raw materials	1 000 units	5 000
Labour		2 700
Overhead		1 800

There were no normal losses in the process.

The details of the closing work in progress are as follows:

Closing WIP	200 units
Degree of completion:	
Direct Material	100% complete
Direct Labour	50% complete
Overhead	50% complete

You are required to show all the relevant statement and the Process A Account for the month of April.

QUESTION 3 WAKAWAKA BHD

WAKAWAKA Bhd manufactured a product. Assuming there are now part-completed bars at the end of the month (work in progress). The below was the data for Process 2:

Opening stock 100 unit

Degree of completion in OWIP

	Degree	RM
Material	100%	235
Labour	60%	270
Overhead	40%	250

Unit started into production during the period 3 500 unit

Cost added during the period:	RM
Material	8 750
Labour	3 509
Overhead	2 889

Closing Work in Progress 500 unit

Degree of completion:	
Direct Material	100%
Direct Labour	30%
Overhead	30%

Using the **First In First Out Method**, you are required to show:

- (a) Productions cost per unit
- (b) Cost of closing work in progress
- (c) Process Account

QUESTION 4 MAA Sdn Bhd

MAA Sdn Bhd manufactured a product in one process. Process costing is followed by and WIP stocks at the end of each month are valued on a FIFO basis. The stock of work in progress was **2 000 units** (40 % completed) at the beginning of January 2018, and it was valued at:

	RM
Materials	18 000
Direct labour	17 000
Overhead	5 300

In the month of Jan, actual issue of materials for the production purpose was RM 342 500. Wages and overhead amounted to RM 402 600 and RM 112 200 respectively. Finished goods in stock for the month was **12 500** units. There was no loss in process.

At the end of the month, WIP inventory was **2 500** units, 60% complete as to labour and overhead and 80% complete as to materials.

Prepare the following statement for the Jan 2018.

- a) No of unit introduced in the process
 - b) Statement of equivalent
 - c) Statement of cost Production
 - d) Statement of Evaluation
 - e) Process Account
-

QUESTION 5 Palma Bhd

The refining department of Palma Bhd has the following production results for August 2018:

Opening WIP 2 000 units

Degree of completion:

Material 100%

Labour 60%

Overhead 40%

Units introduced 10 000 units

Unit completed (finished goods) 9 000 units

Closing WIP 3 000 units

Degree of completion:

Material 100%

Labour 70%

Overhead 60%

Cost information are:

	Material (RM)	Labour (RM)	Overhead (RM)
Opening Work in Progress	2,800	2,205	800
Cost for this month	20 000	15 000	10 000

Using the **Average Cost Method**, you are required to show:

- a) Productions cost per unit
- b) Cost of closing work in progress
- c) Process Account

QUESTION 6 Serbaguna Sdn Bhd

Serbaguna Sdn Bhd is produced by two different processes: 1 and 2. For the month of April 2018, the following information relates to Process 1. There were 700 units of opening WIP at the start of the period. The below are the degree of completion and costs:

		RM
Raw materials	100%	3 350
Labour	40%	900
Overhead	70%	3 500

During the month of April, the following costs were incurred:

	RM
3 500 units of direct materials	25 896
Direct labour	7 602
Overhead	8 040

At the end of April, 600 units of closing WIP with the following degree of completion were realised:

	%
Materials	70
Direct labour	50
Overhead	40

There was no loss in the process.

Required:

Prepared the relevant statements and the Process 1 account for the month of April 2018, using FIFO Method and AVCO Method.

QUESTION 7 Delima Pink Bhd

Delima Pink Bhd produces an item which goes through 3 processes. In September 2018, the data for Process 1 was:

Opening WIP 10 000 units

	RM
Direct materials	40 000
Direct labour	16 000
Overhead	12 000

Unit input was 60 000 units and cost incurred during the process was:

	RM
Direct materials	212,000
Direct labour	105,200
Overhead	75,300

Output transferred to the next process was 50 000 units

Normal loss is 10% of input and loss is expected at the end of the Process 1.

Closing WIP 12 000 units

Degree of completion	Materials	100%
	Direct labour	80%
	Overhead	60%

Using the **AVCO Method**, you are required to:

- (a) Determine (in unit) whether abnormal loss or abnormal gain
- (b) Calculate the total equivalent unit and cost per unit for material, direct labour and overhead.
- (c) Prepare Statement of cost Production, Statement of Evaluation and Process Account

REFERENCE

Das, P. (2016). *Cost Accounting* (15st ed.) Malaysia : Oxford University Press

Drury, C(2018). *Management and Cost Accounting* (10th ed.). Singapore: Cengage Learning EMEA.

Nor Aziah, et.al (2011). *Management Accounting* (1st ed.). Malaysia : Oxford.

Rozainun Abdul Aziz, C.H (2018). *Management Accounting* (3rd ed.). Malaysia: Oxford University Press.

ABOUT THE AUTHORS



Samsinor binti Ibrahim is an Accounting Lecturer at Commerce Department, Politeknik Merlimau Melaka. She holds a Master Degree in TVET Education from KUITTHO and Degree in Accounting from Universiti Utara Malaysia. She also has extensive experience teaching accounting courses, which specialization in Cost & Management Accounting, Economics, Taxation and Financial Accounting.



Nur 'Abidah binti Solihuddin is an accounting Lecturer at Commerce Department, Politeknik Merlimau Melaka. She holds a Degree of Accounting from Universiti Teknologi MARA. She also has extensive experience teaching accounting courses, which specialization in Cost & Management Accounting, Auditing and Financial Accounting.



Norhazma binti Nafi is an Accounting Lecturer at Commerce Department, Politeknik Merlimau Melaka. She holds a Master Degree of Accounting from Universiti Teknologi MARA and a Degree of Accounting from Universiti Utara Malaysia. She also has extensive experience teaching accounting courses, which specialization in Cost & Management Accounting, Auditing and Financial Accounting.

e ISBN 978-967-2241-82-9



9 7 8 9 6 7 2 2 4 1 8 2 9