

Question 3

KEKEMEK LTD

Process I - Account

Particular	Qty	Rate	Amount	Particular	Qty	Rate	Amount
Input Material	6,000	2	12,000	Normal loss	600	3	1,800
Add: Material			7,000	Output	5,000	6.2963	31,481.5
Labour			8,000	Abnormal loss	400	6.2963	2,518.5
D/E			3,000				
O/E			800				
Prod. over-head			5,000				
	<u>6,000</u>		<u>35,800</u>		<u>6,000</u>		<u>35,800</u>

Cost Per Unit (CPU) = Cost - Scrap

$$\begin{aligned}
 & \text{Input material unit} - \text{Normal loss units} \\
 & = 35,800 - 1,800 \\
 & \quad 6,000 - 600 \\
 & = 34,000 \\
 & \quad 5,400 \\
 & = \text{A } 6.2963
 \end{aligned}$$

Process II Account

Particulars	Qty	Rate	Amount	Particulars	Qty	Rate	Amount
Process I: trans	5,000	6.2963	31,481.5	Normal loss	500	3	1,500
b/d: Material			18,000	Output	6,000	13.9292	83,575.2
D/L			10,000				
D/E			4,500				
Other exp			1,200				
Prod. overhead			9,000				
Normal gain	1,500	13.9292	20,813.8				
	<u>6,500</u>		<u>85,075</u>		<u>6,500</u>		<u>85,075</u>

Cost Per Unit (CPU) = Cost - Scrap

Input material - Normal loss

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Methods of cost estimation

a) Least Square or linear Regression method.

This application of linear equation formula:  $y = a + bx$  is used to derive cost regression equations.  $y$  = total or mixed cost,  $b$  = variable cost and  $x$  stands for activity level or independent variable.

b) Account classification method

This is a subjective way of classifying mixed cost into fixed and variable cost. It is used using personal experience by cost accountants. Items of expenditure within the account for some output level. Some advantages are: It is not expensive, it is fast, it is subjective etc.

c) Scattergraph or graphical method

This is as a result of over reliance on high and low values of the high-low method of segregating mixed cost into fixed and variable cost. Graphical method uses all observations in arriving at the cost estimate.

d) Engineering method

This is used when there is engineering analysis of technological relationship between input and output. An example is work sampling, methods study and time motion studies. This method is commonly used in estimating or repetitive processes. The following are the advantages:

- When relationships between output and input are fairly stable overtime.
- It is good when direct costs form a large part of the total cost.

Disadvantage

- It is expensive to apply.

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SALAMANDER P/L

Contract account as at FEBRUARY 28, 2011.

Direct materials used		Materials b/f	
Materials bought on site	75,000	Cost to date b/f	25,000
Direct expenses	195,000		486,650
Wages paid	55,000		
Head office	150,000		

Name: Garfama Estier Stephen

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Continuation of number 1

Accounted expenses			
- wages 5,000			
Direct expenses 1,150	6,150		
	<u>511,650</u>		<u>511,650</u>
Cost to date Lf			
National profit	186,650	value of work certified	545,000
Profit taken 35,010			
Profit not taken 23,340	58,350		
Material Lf	<u>545,000</u>		<u>545,000</u>
	25,000	Profit Lf	23,340

Calculation of work in progress

Cost to date	486,650
Profit taken	35,010
	<u>521,660</u>
Cash received	490,500
W.I.P. in progress	<u>31,160</u>

Workings:

$$\frac{\text{Cash received}}{\text{value certified}} = \frac{490,500}{545,000}$$

National profit = 58,350

$$\text{Profit taken} = \frac{2}{3} \times \text{NP} \times \frac{\text{cash received}}{\text{value certified}}$$

$$= \frac{2}{3} \times 58,350 \times \frac{490,500}{545,000}$$

$$\text{Profit taken} = 35,010$$

$$\text{Profit not taken} = (58,350 - 35,010) = \underline{23,340}$$

3 Name: Erasmus Esther Stephen  
 Matric No: 18FMS 031013

3. KEFGMEK LTD

Particulars	Qty	Rate	Amount	Particulars	Qty	Rate	Amount
				Normal loss	600	3	1,800
Input	6000	2	12,000	Output	5000	6.2963	31481.5
Mat material			7,000	Abnormal loss	100	6.2963	2518.5
labour			8,000				
D/E			800				
O/E			5,000				
Pre overhead							
	6000		35,800		6000		35,800

Cost per unit (CPU) =  $\frac{\text{Cost} - \text{scrap}}{\text{Input material} - \text{Normal loss units}}$

$$= \frac{35,800 - 1,800}{6,000 - 600} = \frac{34,000}{5,400} = \text{A} 6.2963$$

Process II Account

Particulars	Qty	Rate	Amount	Particulars	Qty	Rate	Amount
Process I	5,000	6.2963	31481.5	Normal loss	500	3	1,500
Mat		18,000	18,000	Output	6,000	13.9292	83575.2
D/E		10,000	10,000				
D/E		4,500	4,500				
Other exp		1,200	1,200				
Prod Overhead		9,000	9,000				
Normal gain	1500		20893.8				
	6,500		85075		6,500		85075

CPU =  $\frac{\text{cost} - \text{scrap}}{\text{input material} - \text{Normal loss}}$

$$= \frac{64181.5 - 1500}{5000 - 500} = \frac{62681.5}{4500} = \text{A} 13.9292$$

Name: Rajgama Esther Stephen

Department: Maths No: 18/SMS 03/013

Continuation of No 3

No. 3	Particulars	Qty	Rate	Amount	Particulars	Qty	Rate	Amount
	Process transfer	8000	13.9292	83,578.2	Normal loss	400	3	1,200
	add material			5,000	Output	1,000	18.4598	7,3839.2
	D/L			7,000	Abnormal loss	1,600	18.4598	29,535.61
	D/E			2,500				
	D/S			500				
	Prepaid interest			6,000				
		6,000		104,575		6,000		104,575

$$\text{Cost per unit} = \frac{\text{Cost} - \text{Scrap}}{\text{Input} - \text{Normal loss}} = \frac{104,575.2 - 1,200}{6,000 - 400} = \frac{103,375.2}{5,600} = \text{Rs } 18.4598$$

### Abnormal Gain Account

Particulars	Qty	Rate	Amount	Particulars	Qty	Rate	Amount
Scrap	1500	3	4500	Process II	1500	13.9292	20,893.8
P/L			16,393.8				
	1500		20,893.8		1500		20,893.8

### Abnormal Loss Account

Particulars	Qty	Rate	Amount	Particulars	Qty	Rate	Amount
Process I	400	6.2963	2,518.5	Scrap	1200	3	3,600
Process II	1600	18.4598	29,535.61				

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i) Features used in contract costing:

- a) The contract work is often based on the size (determined)
- b) The work is usually for long duration often more than
- c) There may be sub-contract
- d) The work undertaken to customer's special requirements
- e) A formal contract is made between the customer, contractor and the contractor.

Terminologies used in contract costing:

- a) Cost-Total: The total sum of all cost
- b) Estimated Profit: This is the cost price minus the contract.
- c) Architects certificate: This is a certificate of work
- d) Cost of work certified: This is the total cost certified.
- e) Value of work certified: This is the market value accounted.

ii) Objectives of service costing:

- a) Price should be computed for service being
- b) The cost per unit of services should be used
- c) A cost per unit of service should be
- d) Planned cost should be compared with actual cost and investigated.
- e) Also the management plan should be analysed into fixed cost, variable cost