

### Workings

$$\text{Cash received} = 490,500$$

$$\text{Value certified} = \frac{490,500}{0.90} = 545,000$$

$$\text{Notional profit} = 58,350$$

$$\text{Profit taken} = \frac{2}{3} \times \text{Notional profit} \times \frac{\text{Cash received}}{\text{Value certified}}$$

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

$$= \text{N} 35,010$$

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

### Question 2

Running Cost	N	N
Petrol $\left[ \frac{50 \times 2 \times 2 \times 8 \times 50}{8} \right]$	10,000	
Repairs (120 x 8)	960	
Depreciation on lorry $\left[ \frac{20,000 - 2000 \times 5,000}{100,000} \right]$	900	
Depreciation on tyres $\left[ \frac{2,000}{20,000} \times 5,000 \right]$	500	12,360

Running Cost	N
Drivers wages	200
Garage bills (5 x 10 x 8)	400
Insurance $\left[ \frac{2,000}{52} \times 8 \right]$	307.7
Vehicle License $\left[ \frac{5,200}{52} \times 8 \right]$	800
Other overhead cost $\left[ \frac{7,800}{52} \times 8 \right]$	1,200

Continuation On number 2

$$\text{Vehicle cost per km} = \frac{\text{N}15,268}{5,000} = \text{N}3.05/\text{km}$$

$$\text{Total cost 1 km} = \frac{\text{N}15,268}{0.009/2 \times 12} = 0.51/\text{km}$$

$$\text{Mileage base} = 200 \times 2 \times \text{N}3.05/\text{km} = \text{N}1220/\text{mile}$$

$$\text{Tonnage mile basis} = 200 \times 10 \times 0.5 \text{ km} = \text{N}1,020$$

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	20,893.8				
	<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



## Terminologies Used In contract costing

- Contract price: Agreed price for the contract between the contractor and the contractee.
  - Progress payment: This is the money gotten from the continuous progress of the contract or payment made at specific stage of the contract based on certificate of work done.
  - Retention fee: This is the amount agreed to be withheld on every progress payment as guaranteed <sup>against</sup> ~~against~~ bad or imperfect work which would be released to the contractor after a specified period.
  - Architect Certificate: Certificate of work done issued by an architect at every stage of valuation.
  - Work certified: This is the work done upon which certificate of work done is issued by an expert or architect.
- ## i) Objectives of service costing
- Planned cost: The planned cost should be compared with the actual cost and the difference should be investigated for corrective actions necessary.
  - Cost per unit: The cost per unit of service should be used as part of control function.
  - Computing cost per unit of service: A cost per unit of service should be documented, recorded or computed in order to ascertain the cost effectively and appropriately.
  - Computing prices: The prices should be computed for services.

department to a  
- Analysing service cost: In order to help  
and make decisions, cost should be analysed into  
variable and mixed cost.

ii) Four methods of cost estimation:  
- Account classification method: This is a subjective way of cla-  
sifying mixed cost into fixed and variable cost using personal  
experience by cost accountants. Items of expenditure within the  
accounts for some levels are inspected and classified as fixed  
variable or semi-variable cost.

- Engineering method: This method is used when there is an  
engineering analysis of technological relationship between  
input and output work sampling, methods study and time  
motion studies. The costs are estimated based on observations  
of the underlying physical quantities needed for an activity.  
This method is commonly used for estimating of repetitive  
processes with clearly defined input-output relationships, costs  
that often associate with direct materials, labour and machine  
time which can be observed and measured directly.

- High low method: This is the object method of segregation  
mixed cost into fixed and variable costs through the following  
process:

- Pick the highest and least activity level among the observed data.
- Calculate the difference between two activity levels.
- Pick the corresponding costs of the highest and lowest activity levels.
- Calculate the difference between the costs of the highest and



lowest activity levels

e Divide the cost difference by the difference in activity levels i.e. divide (d) by (b)

f Use "e" which is the variable cost per unit to determine total cost

or fixed cost using cost formula:  $TC = FC + VC$ .

Could also be written as  $Y = a + bX$

$Y = TC$ ,  $a = FC$ ,  $b = \text{variable cost per unit}$  and  $X = \text{unit of output}$

- Least square or Linear regression method: - The application of linear equation formula:  $y = a + bx$  is used to derive the regression equation.  $Y$  stands for total mixed cost, " $a$ " stands for constant factor or total fixed cost, " $b$ " stands for variable cost and " $x$ " stands for activity level or independent variable.

## Question 4

### i Features of Contract Costing

- A formal contract is made between the customer and the supplier i.e. a legally binding contract made between the contractor and the contractee.
- There is often an architect engaged by the contractee to supervise and monitor the job and issue certificate of work done at every stage of the valuation. This means that the certificate of work done is also known as work certified or architect valuation.
- The contract may contain clause for penalty for delay in completion of work and a bonus/tip for any completion before the estimated time of work end or at the exact time of expected work end.
- The work to be done/carried out is usually for long duration often more than one accounting period.
- Retention money/fund may be deducted from the progress payment.
- The work is often/frequently constructional in nature. In other words it frequently involves the building up of something.
- The contract is often based on size.
- Work is undertaken to customer's special requirement/desire.
- Payment on account are usually made against work certified.



Continuation On Question 3

$$= 64181.5 - 1500$$

$$5000 - 500$$

$$= 62681.5$$

$$4,500$$

$$= \text{N} 13.9292$$

Process II Account

Particulars	Qty	Rate N	Amount N	Particulars	Qty	Rate N	Amount N
Process I: Trans.	6,000	13.9292	83575.2	Normal loss	400	3	1,200
Add: Material			5000	Output	4,000	18.4598	73839.2
D/L			7,000	Abnormal loss	1,600	18.4598	29535.68
D/E			2,500				
O/E			500				
Prod. overhead			6,000				
	6,000		104,575		6,000		104,575

$$\text{Cost Per Unit (CPU)} = \frac{\text{Cost} - \text{Scrap}}{\text{Input materials} - \text{Normal loss}}$$

$$= \frac{103375.2}{5,600}$$

$$= \text{N} 18.4598 \text{ N} 18.4598$$

Abnormal Gain Account

Particulars	Qty	Rate N	Amount N	Particulars	Qty	Rate N	Amount N
Scrap	1,500	3	4,500	Process II	1,500	13.9292	20893.8
P/L			16398.8				
	1,500		20893.8		1,500		20893.8

Abnormal Loss Account

Particulars	Qty	Rate N	Amount N	Particulars	Qty	Rate N	Amount N
Process I	400	6.2963	2518.5	Scrap	1,200	3	3,600
Process II	1,600	18.4598	29535.68	P/L	800		57417.18
	2,000		61017.18		2,000		61017.18



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### Question 1

#### SALAMANDER PLC

Contract Account As At February 28, 2011

	₦	
Direct materials issued	75,000	Materials b/f
Materials bought on site	195,000	Cost to date
Direct expenses	55,000	
Wages paid	150,000	
Head Office expenses	10,500	
Plant depreciation (20% x 100,000)	20,000	
Accrued expenses:		
Wages	5,000	
Direct expenses	1,150	6,150
		<u>511,650</u>
Cost to date	486,650	Value of work certified
Notional profit:		
Profit taken	35,010	
Profit not taken	23,340	68,350
		<u>545,000</u>
Material b/f	25,000	Profit b/f

#### Calculation of Work In Progress

	₦
Cost to date	486,650
Profit taken	35,010
	<u>521,660</u>
Cash received	(490,500)
Work-in-progress	<u>31,160</u>