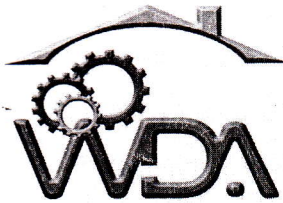


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TVET NATIONAL EXAMINATIONS, ACADEMIC YEAR 2013

**COST AND COMPUTERIZED ACCOUNTING
MARKING SCHEME**

SECTION A

01. (a) A *cost* might be an expense or it might be the price of an asset^{1 mark}. An *expense* is a cost that has expired or was necessary in order to earn revenues^{1 mark}. **(2 marks)**

(b) ascertainment of cost; cost control; decision making; price determination; inventory control, checking the accuracy of financial accounts; preparation of budgets; improving productivity; cost comparison with standard figure; comparison intra-firm and inter-firm

Any 2 valid points, 1 mark each (2 marks)

02.(i) *It provides current data* : financial accounts provide only a post-mortem analysis of past activities

(ii) *It provide data for each and every product, process, department or operation*; financial accounting reveals only overall result of the business:

(iii) *It removes the possibility of manipulation of financial accounts*: very often financial accounts are manipulated so as to project better image.

(iv) *It exercises control over resources*; financial accounts has no control over materials, labour and other expenses. As a result, avoidable wastages and losses go unchecked under this system.

(v) *It provide adequate data for price fixation*: financial accounts do not provide adequate data on the basis of which selling price is fixed so that it is possible to supply quotations to the prospective customers

Any two advantages, 1 mark each; 2 explanations, 1 mark each (4 marks)

03. (a) **It is expensive**: the benefits derived from this system may be less than the investment made on it.

It gives only estimates because it lacks a uniform procedure: It is possible that two equally competent cost accountants may arrive at different results from the same information

It is complex: There are a large number of conventions, estimates and flexible factors such as classifications of costs into its elements, issue of materials on average or standard price, arbitrary apportionment of overhead expenses and allocation of joint costs, etc.

Any two limitations, 1 m1rk each (2 marks)

(b) **Cost ascertainment**: collection of costs attributable to cost centres and products^{1 mark}

Cost control: The practice of managing and/or reducing business expenses^{1 mark} **(2 marks)**

04. Cost unit: the cost incurred to produce, store and sell one unit of a particular product^{1 mark}
Unit costs include all fixed costs (i.e. plant and equipment)^{1 mark} and all variable costs (labor, materials, etc.)^{1 mark} involved in production. (3 marks)

05.a) Production cost: Prime cost + factory expenses + office expenses^{2 marks} (4 marks)
Prime cost: Direct materials + direct labour + direct expenses^{2 marks}

06 a) Historical costing: Ascertainment of costs after they have occurred^{1 mark} It cannot be used for cost control^{1 mark}

b) Standard costing: Use of predetermined costs^{1 mark} to control costs by comparison of these predetermined costs with actual costs^{1 mark} (4 marks)

07. The major difficulty of using the total absorption costing approach is that a cost unit is charged with costs which it has not caused^{1 mark} and which would continue whether the unit is produced or not^{1 mark}
Marginal costing avoids this difficulty by separating fixed and variable costs of production^{1 mark} and charging to a cost unit only the direct costs of producing it^{1 mark}. (4 marks)

08 (i) Contribution: Amount left over after direct (variable) costs are deducted from the sales revenue^{1 mark}. It pays for indirect (fixed) costs and contributes to net income^{1 mark}. (2 marks)

(ii) **Break-even point:** The volume of output at which costs and revenues are equal^{1 mark}
At this point, there is no profit and no loss^{1 mark} (2 marks)

(iii) **Margin of safety:** the difference between potential sales and sales at break-even point^{1 mark}
It indicates the extent to which sales may fall before loss is incurred^{1 mark} (2 marks)

09. The profit-volume ratio shows the relationship between contribution and sales^{1 mark} and is expressed as a percentage of contribution to sales^{1 mark} Management can increase the profit-volume ratio by reducing variable costs^{1 mark} or by raising prices^{1 mark}. (4 marks)

10. The perpetual inventory system updates inventory accounts continuously after each purchase or sale^{1 mark} It provides up-to-date information on inventory balances^{1 mark} and helps an enterprise to control its stock levels^{1 mark} (alternative answer: allows comparison of theoretical and physical inventory^{1 mark} and may uncover shrinkage and theft^{1 mark}) (3 marks)

11.

$$\text{Standard unit cost} = 4 \times \text{RWF } 72 = \text{RWF } 288$$

$$\text{Standard cost for 2500 units} = \text{RWF } 288 \times 2500 = \text{RWF } 720,000 \text{ } ^{1 \text{ mark}}$$

$$\text{Labour rate variance} = 720,800 - 720,000 = \text{RWF } 800 \text{ (unfavourable)}$$

$$\text{Standard hours for 2500 units} = 2500 \times 4 = 10,000 \text{ hours (unfavourable)}$$

$$\text{Labour efficiency variance} = 100,000 - 9700 = 300 \text{ hours } ^{1 \text{ mark}} \text{ (favourable)}$$

11. The actual sales were $\frac{4\,000\,000 \times 14\,000}{20\,000} = \text{RWF } 2\,800\,000$ ^{1 mark}

12. Actual variable costs were $\frac{2\,800\,000 \times 14\,000}{20\,000} = \text{RWF } 1\,960\,000$ ^{1 mark}

Profit using a fixed budget = $\text{RWF } 2\,800\,000 - (1\,960\,000 + 500\,000)$ ^{1 mark} = 340000^{1 marks}

13. Explain the following terms as used in cost accounting

- Idle time allowance is payment for work time not utilised because it is not possible for workers and machines to work continuously^{1 mark}
- A favourable labour variance is a positive difference between standard and actual cost and time used on a product, indicating that work has been done at a lower cost or in less time than expected.^{1 mark}
- A flexible budget responds to changes in activity. It reflects expected costs as a function of business volume; when sales rise so do certain budgeted costs, and vice versa
- Over-recovery of overheads: when the actual production overheads are lower than the standard overheads^{1 mark}

(4 marks)

14. Expected selling price: $2100 \times 500 = \text{RWF } 1,050,000$ ^{1 mark}

Sales price variance: $\text{RWF } 1,050,000 - 100\,800$ ^{1 mark} = $\text{RWF } 49,200$ ^{1 mark}

(3 marks)

SECTION B: Attempt any three questions (45marks)

15. Five major limitations of financial accounting that are overcome by cost accounting:

Financial accounting	Cost accounting
provides only past data	Provides up to date information
reveals only overall result of the business and no information for cost control	provide data for each and every product, process, department or operation
does not incorporate the changes that take place within the business	Dynamic; incorporate the changes as they take place
information like profitability and financial position primarily to owners and outsiders	Information to management for operational efficiency of individual departments
fails to help in classification and allocation of expenses in separate cost centres	analyses the cost and causes of any variations from the standards set
does not provide information for planning	provides information to management for proper planning
No information for decision making with regard to reducing costs and increasing revenue	breaks up the total cost on a unit basis of which future production policies are set
No information for comparison	Facilitates comparison of costs in different periods

Any other valid point, 1 mark, explanation 2 marks; maximum 5 points and 5 explanations (15marks)

16. A company is organized into 3 profit centres. The results for the year 2012 were as follows, in 000s of RWF:

a)

Profit centre			
	A	B	C
Sales	60,000	38,000	33,000
Less Variable Costs	39,500 <small>2 marks</small>	22,500 <small>2 marks</small>	21,000 <small>2 marks</small>
Contribution	20,500 <small>2 marks</small>	15,500 <small>2 marks</small>	12,000 <small>2 marks</small>
Fixed overheads	14,000	18,000	9,000
Profit/(loss)	6,500	(2,500)	3,000

(12 marks)

b) The effect of closing Profit Centre B:

Its contribution would be lost ^{1 mark}

Fixed costs would remain to be shared out by A and C ^{1 mark}

Profit of 7 m (6.5 + 3 - 2.5) would turn to loss ^{1 mark} of 8.5 m (6.5 + 3 - 18) (3 marks)

17.

a) Allowed time at 15 minutes per unit 150 hours: $600 \times 15/60 = 150$ hours

Actual time worked: Kaneza 45 + Keza 42 + Kazungu 44 = 131 hours

Time saved 19 hours ^{2 marks}

Overtime hours worked: (in excess of 40 hrs/week) $5+2+4 = 11$ hours ^{2 marks} (4 marks)

b) The total labour cost :

Basic pay 131×4000 ^{1 mark} = 524 000 ^{1 mark}

Overtime 11 hrs @ RWF 2000/hour = 22 000 ^{1 mark}

Production bonus 19 hrs @ RWF ~~2000~~ ^{1 mark} = ~~38 000~~ ^{1 mark}

6000

584 000 ^{2 marks}

(6 marks)

660,000

c) The profit made on the order:

Sales 600 units @ RWF 11 000 /unit RWF 6 600 000 ^{1 mark}

Less Costs:

Materials 600 units @ RWF 5 000 /unit 3 000 000 ^{1 mark}

Labour see schedule above

Overhead 131 hours @ RWF 4000/hour RWF 524 000 ^{1 mark} 4 184 000

Profit 2 492 000 ^{1 mark}

2,416,000 (5 marks)

17.

18

- a) Stoves sold during the year: $252000/1400 = 180$ ^{1 mark}
 Stoves on hand at 1 January 2013: $40 + 210 - 180 = 70$ ^{1 mark} (2 marks)
- b) Closing stock using the FIFO method: $70 \times 750 = \text{RWF } 52,500$ ^{2 marks} (2 marks)
- c) Gross profit for the year ended 31 December 2012.

	RWF	RWF	
Sales		252 000	^{1 mark}
Opening stock	38 000		^{1 mark}
Purchases	170 000		^{1 mark}
Closing stock	(31500)		^{1 mark}
Cost of goods sold		(176 500)	
Gross Profit		75 500	^{1 mark} (5 marks)

- d) closing stock using the weighted average stock valuation method :
 $70 \times \frac{(900 + 850 + 750)}{3}$ ^{1 mark}
 $= \text{RWF } 58\,333$ ^{1 mark} (2 marks)
- e) Gross profit for the year using the weighted average method:

Sales		252 000	
Opening stock	38 000		
Purchases	170 000		
Closing stock	(58 333)		
Cost of goods sold		(149 667)	^{2 marks}
Gross Profit		102 333	^{2 marks} (4 marks)

19. Bashaka Ltd had the following income statement for September 2013.

Sales: 3,000 units at RWF 80/unit	240,000
Less: Cost of Goods Sold:	
Variable Production Cost	180,000
Fixed Production Cost	19,800
Gross Margin	40,200
Selling and Administrative Expenses	
Variable Selling Cost	21,000
Fixed Selling Expenses	7,500
Net Income Before Taxes	11,700

- a) Breakeven output: $\text{TFC}/(\text{P} - \text{AVC}) = 27,300/(80 - 67) = 27,300/13$ ^{2 marks} = 2,100 units ^{1 mark}

(3marks)

- b) Quantity to sell to get a monthly net income before taxes of RWF 18,000 and its cost structure remains unchanged: $(27,300 + 18,000)/(80 - 67)^{2 \text{ marks}} = 3,485 \text{ units}^{1 \text{ mark}}$ **(3marks)**
- c) Breakeven output if variable production costs increase by 4 RWF per unit:
 $TFC/(P - AVC) = 27,300/(80 - 71) = 27,300/9^{2 \text{ marks}} = 3,033 \text{ units}^{1 \text{ mark}}$ **(3marks)**
- d) , Output to sell after the increase of 4 RWF per unit in order to get the 18,000 RWF monthly pre-tax profit: $(27,300 + 18,000)/(80 - 71)^{2 \text{ marks}} = 5,033 \text{ units}^{1 \text{ mark}}$ **(3marks)**
- e) , what will be the firm's Monthly profit at sales of 4,000 units of output per month, given the variable production cost increase but no change in fixed costs: $Q(P - AVC) - TFC = 4,000(9) - 27,300^{2 \text{ marks}} = \text{RWF } 8,700^{1 \text{ mark}}$ **(3marks)**