

UNIVERSITY OF SWAZILAND  
DEPARTMENT OF ACCOUNTING  
SUPPLEMENTARY EXAMINATION PAPER, 2007

DEGREE/DIPLOMA AND YEAR OF STUDY : B.COM IV  
TITLE OF PAPER : MANAGEMENT ACCOUNTING I  
COURSE CODE : AC 402  
TIME ALLOWED : THREE HOURS

- INSTRUCTIONS:
1. THE TOTAL NUMBER OF QUESTIONS ON THIS PAPER ARE FIVE (5)
  2. ANSWER QUESTION ONE AND ANY OTHER THREE QUESTIONS.
  3. THE MARKS AWARDED FOR A QUESTION / PART ARE INDICATED AT THE END OF EACH QUESTION / PART OF QUESTION.
  4. WHERE APPLICABLE, SUBMIT ALL WORKINGS AND CALCULATIONS.

NOTE: YOU ARE REMINDED THAT IN ASSESSING YOUR WORK, ACCOUNT WILL BE TAKEN OF ACCURACY OF THE LANGUAGE AND THE GENERAL QUALITY OF EXPRESSION, TOGETHER WITH THE LAYOUT AND PRESENTATION OF YOUR FINAL ANSWER.

SPECIAL REQUIREMENTS: NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

**QUESTION ONE**

Backe and Smash Ltd manufactures a brand of tennis racket, the Winsome, and a brand of squash racket, the Boastful. The budget for October was as follows;

		<b>Winsome</b>	<b>Boastful</b>
Production (units)		4,000	1,500
Direct materials:	Wood (£0, 30 per metre)	7 metres	5 metres
	Gut (£1. 50 per metre)	6 metres	4 metres
Other materials (per unit)		E 0.20	E0.15
Direct labour	(£3 per hour)	30 mins	20 mins
Overheads:			E
Variable:	Power		1,500
	Maintenance		<u>7,500</u>
			9,000
Fixed:	Supervision		8,000
	Heating and lighting		1,200
	Rent		4,800
	Depreciation		<u>7,000</u>
			21,000

Variable overheads are assumed to vary with standard hours produced. Actual results for October were as follows:

Production ;

Winsome	3, 700 units
Boastful	1,890 units

Direct materials, bought and used:

Wood	37,100 metres, cost	E11,000
Gut	29, 200 metres, cost	E44,100
Other materials	cost	E 1,000
Direct labour	2,200 hours, cost	E 6,850
Power		E 1,800
Maintenance		E 6,900
Supervision		E 7,940
Heating and lighting		E 1,320
Rent		E 4,800
Depreciation		E 7,000

**REQUIRED:**

Calculate the cost variances which should be incorporated into the operating statement for the month of October. Assume that a standard full costing system is in operation, (i.e a standard absorption costing- system).

( 25 Marks)

## QUESTION TWO

**OUT-OF-DATE MANUFACTURING COMPANY  
INCOME STATEMENTS**

	Year ended	
	31 Dec 2005	31 Dec 2006
Units manufactured	100,000	90,000
Units sold	<u>90,000</u>	<u>90,000</u>
Sales revenue	<u>E900,000</u>	<u>E900,000</u>
Cost of sales (standard)	E	E
Inventory at beginning		60,000
Cost of good manufactured	<u>600,000</u>	<u>540,000</u>
	600,000	600,000
Inventory at end	<u>60,000</u>	<u>60,000</u>
	<u>540,000</u>	<u>540,000</u>
Gross margin on sales	360,000	360,000
Selling and administrative expenses		
Commission on sales	90,000	90,000
Other	<u>200,000</u>	<u>200,000</u>
	<u>290,000</u>	<u>290,000</u>
Net income (standard)	70,000	70,000
Volume variance – indirect mfg. costs	<u>0</u>	<u>(10,000)</u>
Net income (actual)	<u>E70,000</u>	<u>E60,000</u>

Salesmen are paid a commission of 10% of sales; all other selling and administrative expenses are nonvariable.

**REQUIRED:**

- a) Explain the reason for the decrease of E10,000 in the net income reported under absorption costing. (10 Marks)
- b) Revise the income statements applying the direct cost concept (10 Marks)
- c) What decision making costs can be readily developed from the revised statements? (5 Marks)

Total (25 Marks)

**QUESTION THREE**

The following account shows the trading results of a company:

	E	E
Sales—50 000 units at E1		50,000
Less:		
Fixed Cost (including E5 000 sales promotion)	20,000	
Variable Cost (including 5 per cent commission on all sales)	<u>20,000</u>	<u>40,000</u>
		<u>E10,000</u>

Owing to increased competition, the directors of the company deem it necessary to increase the sales promotion expense by 50 per cent and double the commission paid.

**REQUIRED**

Calculate the additional sales volume (expressed as a percentage correct to two decimal places) that is necessary to maintain the existing:

- a) total profit? (15 Marks)
  - b) profit per unit sold? (15 Marks)
- Total (30 Marks)

## QUESTION FOUR

A) Zenzele Ltd manufactures a small part which is used in the production of its major product, a sun umbrella. The cost accountant and the purchasing manager have discussed the possibility of buying this part from Themba Industries. The following data are available:

Cost per unit to manufacture:	
Direct materials	E10
Direct labor	7
Variable overhead	6
Fixed overhead—applied	<u>9</u>
Total cost	<u>E32</u>

Cost per unit to buy:	
Purchase price (subject to 2% discount)	E28
Freight charges	<u>1</u>
Total cost	<u>E29</u>

- i) Zenzele Ltd always takes advantage of purchase discounts, should the company make or buy the part? Explain (Assume all production costs are avoidable if the part is purchased.) (5 Marks)
- ii) If Zenzele Ltd buys the part from Masina Industries, it has no alternative use of the equipment now used for this production- Thus, 40% of [he fixed overhead will continue even if production of the part ceases. Will your answer to part (a) now differ? Why or why not? (4 Marks)
- B) Because of a labor strike in the plant of a major competitor. Gama Electronics has found itself operating at peak capacity. The firm makes two electronic cools, timing lights and ohm meters. At this time the company can sell as many of each produce as it can make, but it takes twice as long in machine hours to make timing lights as it does to make ohm meters- The firm's machines can only be run 80.000 hours per month. Data on each product follow:

	Timing Lights	Ohm Meters
Sales	E25	E18
Variable costs	<u>15</u>	<u>12</u>
Contribution margin	E10	E 6
Machine hours required	4	2

Fixed costs run E120,000 per month.

- i) How many of each product should the company make? Explain your answer. (4 Marks)
- ii) Describe three qualitative considerations that need to be taken into account while following your recommendation in part (i) (4 Marks)

C) Nxau Wire Company produces 14-gauge barbed wire, which is retailed through farm supply companies. Presently, the company has the capacity to produce 2,000 tons of wire per year. At this time, the firm is operating at 75% of annual capacity and, at this level of operations, the cost per ton of wire is as follows:

Direct materials	E140
Direct labor	40
Variable overhead	15
Fixed overhead	<u>80</u>
Total	<u>E275</u>

The average sales price for the output produced by the firm is E400 per ton. The firm has been approached by a company about supplying 300 tons of wire for a new game reserve. The company has offered Nxau Wire Company E205 per ton for the order. No production modifications would be necessary to fulfill this order from the company.

**REQUIRED:**

- i) What costs are relevant to the decision to accept this special order (4 Marks)
- ii) What would be the monetary effect on net profit if this order is accepted (4 Marks)

Total (25 Marks)

**QUESTION FIVE**

A. Company manufactures an electronic listening device in two models, Super and Deluxe. Marginal contributions per unit are; Super, E30; Deluxe, E40, Sales forecasts indicate that no more than seven of the Deluxe models can be sold in any one period; all of the Super models which can be produced can be sold.

The manufacturing process involves three operations: basic unit assembly and finishing. The hours required for each model and the total hours available for each operation are as follows:

Operation	Hours required		Total hours Available
	Super	Deluxe	
Basic unit	4	5	60
Assembly	1	2	16
Finishing	1	1	13

**REQUIRED:**

- a) Using a graphic approach, determine the product mix that maximizes profits. (10 Marks)  
 b) Determine the maximum marginal contribution. (3 Marks)

B. Hleziphi Ltd manufactures two drills: one for the trade (Alpha), the other for the public (Omega). Each unit of Alpha takes 30 hours of production time and each unit of Omega, 5 hours. All told, 120 hours of production time are available per day. All the units of Omega that are produced can be sold; but, because of limited demand, at most 3 units of Alpha can be marketed per day.

An Alpha sells for E30, an Omega for E15. The variable costs per unit, including the costs of production and selling, are E20 for Alpha and E9 for Omega.

**REQUIRED:**

- a) Using a graphic approach, determine the production schedule that maximizes daily profit (9 Marks)  
 b) What is that maximum profit? (3 Marks)

Total (25 Marks)