

UNIVERSITY OF SWAZILAND
DEPARTMENT OF ACCOUNTING
SUPPLEMENTARY EXAMINATION PAPER 2005

DEGREE/DIPLOMA AND YEAR OF STUDY : B.COM 1V

TITLE OF PAPER : MANAGEMENT ACCOUNTNG 1

TIME ALLOWED : THREE (3) HOURS

INSTRUCTIONS :1. TOTAL NUMBER OF QUESTIONS
ON THIS PAPER: FIVE (5)

2. ANSWER ANY FOUR
QUESTIONS

3. THE MARKS AWARDED FOR A
QUESTION/PART ARE INDICATED
AT THE END OF EACH QUESTION
/ PART OF QUESTION.

4. ALL CALCULATIONS ARE TO BE
MADE TO THE NEAREST
LILANGENI.

5. 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
QUALITYOF EXPRESSION, TOGETHER WITH THE LAYOUT AND
PRESENTATION OFYOUR FINAL ANSWER.

SPECIAL REQUIREMENTS : NONE

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

QUESTION ONE

- A. Sandlwane Ltd sells its single product at E60 each and incurs the following variable cost per unit of product:

Direct materials	E16
Direct labour	12
Manufacturing overhead	<u>7</u>
Total variable manufacturing costs	35
Marketing costs	<u>5</u>
Total variable costs	<u>E 40</u>

Sandlwane's annual fixed costs are E880,000, and the company is subject to a 30% income tax rate.

Required: compute the :

- i) annual after-tax profit (loss) if 4000 units are produced and sold each month. (5 Marks)
 - ii) annual break-even point in units (5 Marks)
 - iii) sales in Emalangeneni (money) required to achieve a target after-tax income of E224,000 for the year. (5 Marks)
 - iv) contribution-margin ratio, assuming that direct materials and direct labour increased by 20% (5 Marks)
- B. Write short notes about any five (5) assumptions underlying break-even and CVP analysis. (5 Marks)

(Total:25 Marks)

QUESTION TWO

Bayshore Company is starting operations on January 2, 2004 (no beginning inventories). Practical capacity of 10,000 units per year will be used in setting the factory overhead application rate. A sales forecast indicates that 8,500 units will be sold in 2004. In anticipation of a need for an inventory build-up, production will be scheduled at 9,000 units. Computed under direct costing, income for 2004 is budgeted as follows:

Sales revenue – 8,500 units @ E20		E170,000
Variable costs:		
Manufacturing – 8,500 units @ E8	E68,000	
Selling & Admin. – 8,500 units @ E2	<u>17,000</u>	<u>85,000</u>
Marginal contribution		<u>E85,000</u>
Non-variable costs and expenses:		
Manufacturing	E30,000	
Selling & Admin	<u>40,000</u>	<u>70,000</u>
Net income		<u>E15,000</u>

Required: Determine the following:

- application rate to apply the non-variable indirect manufacturing costs under absorption costing; (5 Marks)
- income (loss) that would be budgeted for 2004 under absorption costing; (10 Marks)
- cost attached to the inventory of finished goods on December 31, 2004 under (1) direct costing and (2) absorption costing, assuming inventories are carried at standard cost. (5 Marks)
- Account for the difference between the net profits reported under the two concepts. (5 Marks)

(Total:25 Marks)

QUESTION THREE

- A. The facilities of a company can be used to produce either Product X or Product Y. The marginal contribution per unit is E4 for X and E6 for Y. Non-variable costs and expenses that will not change with the sales mix today E40,000 per period. Direct labour hours to produce one unit of a product are : X, one hour; Y, two hours. A total of 20,000 direct labour hours is available each period.

The maximum number of units of Product X that can be sold is 10,000. There is no limit to the number of units of Product Y that can be sold.

Required:

Determine the number of units of each product that should be scheduled for production each period if the company's objective is to maximize profits. (10 Marks)

- B. ABC Ltd produces and sells two grades, A and B, of the single wood product. Each grade is processed through two phases, cutting and finishing. The following unit information is given:

	Grade A	Grade B
Selling price	E15,00	E10,00
Direct materials	2,80	1,00
Variable labour	6,00	5,00
Variable overhead	1,20	1,00
Fixed overhead applied	0.72	0.60
Labour requirements in hours:		
Cutting	$\frac{1}{2}$	$\frac{1}{2}$
Finishing	$\frac{2}{5}$	$\frac{1}{5}$

The cutting department has 200 hours available each week. The finishing Department has 120 hours available each week. Sales constraints are: Grade A, 400 units per week; Grade B, 300 units per week.

Required:

- a) using a graphic approach, determine the product mix that maximizes profits. (10 Marks)
- b) determine the maximum marginal contribution. (5 Marks)
- (Total:25 Marks)

QUESTION FOUR

- A. Ligwalagwala Ltd has enough idle capacity available to accept a one-time-only special order of 20,000 units of wooden spoons at E12 per spoon. The normal selling price is E20 a spoon. Total manufacturing cost per spoon is E12 of which E9 is variable and E3 is fixed. The company will not incur any selling costs as a result of the special order but will incur a manufacturing changeover cost of E10,000.

Required: what could be the effect on operating profit/income if the special order could be accepted without affecting normal sales

(5 Marks)

- B. Asakhe Ltd currently operates a single production shift, which incurs the costs and earns the revenues stated below (per annum)

Sales (10,000 units)		E360,000
Direct materials	E120,000	
Direct labour	100,000	
Variable overhead (E2 per unit)	<u>20,000</u>	<u>240,000</u>
Contribution margin		E120,000
Fixed overhead		<u>90,000</u>
Net profit		<u>E30,000</u>

Sales demand exists for an extra 6 000 units (at the existing sales price) which could be made in a second shift. The labour costs in the second shift would be the same as in the first shift plus a second –shift premium. The second shift is paid at time-and –a-quarter. Additional fixed overheads of E10,000 would be obtained on all quantities of material bought.

Required:

Should the second shift be opened up?

(15 Marks)

- C. Are joint processing costs relevant in deciding whether to sell a joint product at the split-off point or process it further beyond the split-off point?

(5 Marks)

(Total:25 Marks)

QUESTION FIVE

- A. Willards Ltd manufactures recreational equipment and prepares annual operational budgets for each department. The purchasing Department is finalising plans for the financial year ending June 30,2004, and has gathered the following information regarding two of the components used in tricycles and bicycles. Willards Ltd uses the first- in first out inventory method.

	<u>A19</u>	<u>B12</u>	<u>Tricycles</u>	<u>Bicycle</u>
Beginning inventory: July 1, 2003	3500	1200	800	2150
Ending Inventory: June 30,2004	2000	1800	1000	900
Unit cost:	E1.20	E4.50	E54.50	E89.60
Projected 2003 – 2004 Unit sales	-	-	96000	130000
Component usage: Tricycles	2 / unit	1 / unit		
Bicycles	2 / unit	4 / unit		

Required:

- i) compute the budgeted value of Willard's purchases of component A19 for the financial year ending June 2004. (5 Marks)
 - ii) If the economic order quantity of component B12 is 70,000 units, what would be the number of times that Willards should purchase this component during the financial year ended June 30,2004?. (4 Marks)
- B Super star expects April sales of its deluxe model toy airplane, the C-14, to be 402,000 units at E11 each. Each C-14 requires three purchased components shown below.

	<u>Purchase Cost</u>	<u>Number needed for each C-14 unit</u>
A – 9	E0.50	1
B – 6	E0.25	2
D - 28	E1.00	3

Factory direct labour and variable overhead per unit of C -14 totals E3,00. Fixed factory overhead is E1.00 per unit at a production level of 500,000 units. Superstar plans the following beginning and ending inventories for the month of April and uses standard absorption costing for valuing inventory.

QUESTION FIVE CONTINUED

<u>Part No.</u>	<u>Units at April 1</u>	<u>Units at April 20</u>
C – 14	12000	10,000
A – 9	21000	9,000
B – 6	32000	10,000
D – 28	14000	6,000

Required:

- i) what would be the C -14 production budget for April? (4 Marks)
 - ii) What would be Superstar's April Budget for the purchase of A – 9? (4 Marks)
 - iii) What would be the total April budget for all purchased components? (4 Marks)
 - iv) What would be the book value of the planned April 30 inventories? (4 Marks)
- (Total: 25 Marks)