

UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING

MAIN EXAMINATION PAPER , MAY 2006

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 FOUR (4)**
 - 2. ANSWER QUESTION ONE AND ANY OTHER THREE QUESTION.**
 - 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 1

- a) Barnes Corporation expected to sell 150,000 board games during the month of November and the company's master budget contained the following data related to the sale and production of these games.

Revenue	E2,400,000
Cost of goods sold:	
Direct materials	E 675, 000
Direct labour	E 300,000
Variable	<u>E 450,000</u>
Contribution	E 975,000
Fixed overhead	E 250,000
Fixed selling/administration	<u>E 500,000</u>
Operating income	<u>E 225,000</u>

Actual sales during November were 180,000 games. Using a flexible budget, what would be the company's expected income for the month of November?
(6 Marks)

- b) Willards Ltd manufactures recreational equipment and prepares annual operational budgets for each department. The purchasing Department is finalizing 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.

	A19	B12	Tricycles	Bicycle
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	-	-	96.000	130.000
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. (2 Marks)
- C) Superstar expects April sales of its deluxe model 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
D28	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.

Part No.	Units at April 1	Unit at April 20
C-14	12 000	10,000
A-9	21 000	9,000
B-6	32 000	10,000
D-28	14 000	6,000

Required:

- i) What would be the c-14 production budget for April?. (3 Marks)
 - ii) What would be Superstar's April budget for the purchase of A-9? (3 Marks)
 - iii) What would be the total April budget for all purchased components? (3 Marks)
 - iv) What would be the book value of the planned April 30 inventories? (3 Marks)
- Total (25 Marks)

QUESTION 2

Sazile Ltd which produces one product operates a standard costing system with thirteen four – weekly account periods each year.

The following data is available from the standard cost card and the budget. Standard prime costs for one unit of product:

	E
Direct material A: 0.72 kgs @ E10.50 per kg	E7.560
Direct material B: 0.014 litres @ 21 per litre	0.294
Direct material C: 0.45 litres @ E4 per litre	0.180
Direct labour 30 minutes @ E2 per hour	<u>1.000</u>
	E9.034

Standard selling price pre unit produced E12

Budgeted labour force 210 men working 48 hours per week

Budgeted fixed overhead E786,240 per annum

Data in respect of actual results for period 4:

Actual production 80,000 units

	Material A	Material B	Material C
Direct materials			
Stock at the end of period 3	14,600 kg	600 litres	1210 litres
Purchases period 4	61400 kg	1305 litres	3000 litres
	@E10.60	@E19	@E4.50
Stock at end of period 4	18040kg	800 litres	900 litres
Direct labour:			
Actual hours	41 000		
Wages paid	E79,950		
Fixed overhead incurred	E58,000		

Identical opening and closing stocks of in progress and finished good were held.

All sales were made at the standard selling price. Note that the direct material stock accounts are valued at standard prices. Any price variance is transferred to the income statement of the period in which the purchases are made. Required: for Period 4.

Calculate the following cost variances:

- | | | | | |
|----|-----|--|----|--------|
| a) | i) | direct material price variance | (3 | Marks) |
| | ii) | direct material usage variance | (3 | Marks) |
| b) | i) | direct labour wage rate variance | (3 | Marks) |
| | ii) | direct labour efficiency variance | (3 | Marks) |
| c) | i) | fixed overhead spending/expenditure | (3 | Marks) |
| | ii) | fixed overhead denominator/volume variance | (3 | Marks) |

d)	i)	compute the standard profit based on actual production for the period	(3	Marks)
	ii)	compute the actual profit	(3	Marks)
e)	Reconcile the standard profit with the actual profit		(1	Marks)
			Total	(25 Marks)

QUESTION THREE

A company that began operations in January, 19A, set up the following flexible budget for its single product:

	150,000 units	200,000 units
Sales revenue	E1,200,000	E1,600,000
Manufacturing costs:		
Non-variable	E 200,000	E200,000
Variable	450,000	600,000
Selling & other expenses:		
Non-variable	160,000	160,000
Variable	<u>300,000</u>	<u>400,000</u>
	<u>E1,110,000</u>	<u>E1,360,000</u>
Net income	<u>E 90,000</u>	<u>E240,000</u>

Standard capacity of 200,000 units is used in allocating non-variable manufacturing costs. During the first year, it is expected that 180,000 units will be manufactured and that 160,000 units will be sold.

- (a) Determine the net income (loss) budgeted for the year under
- (1) absorption costing and (10 Marks)
- (2) direct costing, (10 Marks)
- (b) Determine the value of the inventory expected at the end of the year under
- (1) absorption costing and (2 ½ Marks)
- (2) direct costing. Variances are closed to the income account at year-end (2 ½ Marks)
- Total (25 Marks)

QUESTION FOUR

- a) The following information is for ABC Ltd:
- | | | |
|-------------|---------------|-------|
| Product A : | Revenue | E4.00 |
| | Variable cost | E1.00 |

Product B:	Revenue	E6.00
	Variable cost	E2.00
	Total fixed costs are	E40,000

Required:

- i) what is the break-even point, assuming the sales mix consists of two units of Product A and one unit of Product B.? (4 Marks)
- ii) What is the Operating profit, assuming actual sales are 300,000 units, and the sales mix is one unit of Product A and two units of Product B?. (4 Marks)
- iii) Sanele Ltd manufactures two types of motor bikes:

Lax and Lov. The marketing department believes that it can sell between 12 000 and 18 000 of either product during the upcoming year. Because of the overall economic slow down, the company is preparing to produce only one model for the next year because both motorbikes will be near their break-even points for the range of operations. The following information has been provided by the accounting department.

Per unit	Lax	Lov
Selling price	E2,250	E2,550
Variable costs	1,350	1,350

For the next year, fixed costs will total E9,450,000 if Lax is produced and E11,640,000 if Lov is produced. Plant capacity allows up to 107,800 direct manufacturing hours. Lax takes 9.8 hours to produce and Lov requires 11 hours. The company is subject to 30 % income tax rate.

Required:

- i) compute the break-even point (in units) for each type of motorbike (5 Marks)
- ii) number of each type of motor bike that can be produced (4 Marks)
- iii) compute the net profit of each type of motor bike (4 Marks)
- iv) what conclusions can you draw from your computations?(4 Marks)
- Total(25 Marks)

QUESTION FIVE

- a) B and B Ltd makes a single product which sells for E20, and for which there is great demand. It has a variable cost of E12, made up as follows:

Direct material	E4
Direct labour (2 hours)	6
Variable overhead	<u>2</u>
	<u>E12</u>

The labour force is currently working at full capacity and no extra time can be made available.

A customer has approached the company with a request for the manufacture of a special order, for which he is willing to pay E55 00.

The costs of the order would be E2000 for direct materials, and 500 labour hours required.

REQUIRED:

- a) Should the order be accepted? (8 Marks)
- b) The management of P and P Products Ltd is considering the entry of its new Likoqo product line in the market. Since its existing product line, Ingwenya, has similar characteristics to the new product line, management expects the Likoqo sales to require a minimum of additional expense. It also expected that Ingwenya sales will increase if both product lines are offered in a package deal.

The Likoqo product line would be manufactured in a company –owned facility that is now being rented to another firm for E25,000 per year. Depreciation on this facility and all other building expenses are presently E30,000 per year. In addition, the company will need to purchase E500,000 of equipment to manufacture the new product line; this equipment is estimated to have a ten-year life, and straight-line depreciation would be used. The contribution margin for the Likoqo product line is E50 per unit, and annual sales are estimated at 5000 units.

Last year sales for the Ingwenya product line amounted to 20,000 units. Other relevant sales and cost data were:

Selling price	E100,00
Variable cost of goods sold	25
Variable marketing & admin expenses	10
Fixed marketing & admin expenses	15

If the new Ligoqo product line is undertaken, the company expects a 5% increase in Ingwenya sales. Otherwise, Ingwenya sales will remain unchanged. Additional facilities will not be needed to manufacture the additional Ligoqo units.

REQUIRED:

An analysis showing the effect of this new product line on the net profit if it is accepted by the company.

(9 Marks)

- c) A company has been making a machine to order for a customer, but the customer has since gone into liquidation, and there is no prospect that any money will be obtained from winding up of the company.

Costs incurred to date in manufacturing the machine are E50,000 and progress payments of E15000 has been received from the customer prior to the liquidation.

The sales department has found another company willing to buy the machine for E34,000 once it has been completed. To complete the work, the following costs would be incurred:

- i) materials: these have been bought at a cost of E6000. They have no other use, and if the machine is not finished, they would be sold for scrap for E2000.
- ii) Further labour cost would be E8000. Labour is in short supply, and if the machine is not finished, the work force would be switched to another job, which would earn E30,000 in revenue, and incur direct costs of E12 000 and absorbed (fixed) overhead of E8,000.
- iii) consultancy fees E4,000. If work is not completed, the consultant's contract would be cancelled at a cost of E1500.
- iv) General overheads of E8,000, would be added to the cost of additional work.

REQUIRED:

Should the new customer's offer be accepted?

(8 Marks)

Total (25 Marks)