UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING

SUPPLEMENTARY EXAMINATION PAPER , 2006

DEGREE/DIPLOMA AND YEAR OF STUDY : B.COM IV

TITLE OF PAPER :

COURSE CODE : AC 402

TIME ALLOWED : 3 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 1

Zuzu Ltd began operations in 2005 January. It 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	E200,000	E200,000
Variable	E450,000	E600,000
Selling and other expenses:		
Non variable	E160,000	E160,000
Variable	E300,000	E400,000
	E1,110,000	E1,360,000
Net profit	E90,000	E240,000

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 160,000 units will be sold.

Required:

a) Determine the net profit (loss) budgeted for the year under
   i) absorption costing and
   ii) direct costing (16 Marks)

b) Determine the value of inventory expected at the end of the year under
   i) absorption costing
   ii) direct costing

   Variances are closed to the income account at year end (6 Marks)

c) Reconcile the profit under absorption costing and the profit under direct costing. (3 Marks)

Total (25 Marks)

QUESTION 2

a) The controller of ABC Ltd has requested a quick estimate of the manufacturing supplies needed for the Manzini Plant for the month of July when Production is expected to be 470,000 units to meet the ending inventory requirements and sales of 475 000 units. ABC Ltd's budget analyst has the following data for the last 3 months.

Month	Production in units	Manufacturing Supplies
March	450,000	E723,060
April	540,000	853,560
May	480,000	766,560

Using the high-low method to develop a cost estimating equation, what would be the estimate of needed manufacturing supplies for July?. (9 Marks)

b) Berol Ltd plans to sell 200,000 units of finished product in July 2004 and expects a growth rate in sales of 5% per month. The desired monthly ending inventory in units of finished product is 80% of the next month's estimated sales. There are 150,000 units of inventory on June 30, 2004. Each unit of finished product requires 4 kgs of direct material at a cost of E1.20 per kilogramme. There are 800,000 kgs of direct materials in inventory on June 30,2004.

Required:

i) What would be the production requirement in units of finished product for the 3 month period ending September 30,2004.? (4 Marks)

ii) Without prejudice to your answer in (i) above, assume Berol Ltd plans to produce 600,000 units of finished product in the 3 month period ending September, 30, 2004, and to have direct materials inventory on hand at the end of the 3 month period equal to 25% of the use in that period. What would be the estimated cost of direct materials purchases for the 3 month period ending September 30,2004? (4 Marks)

c) Sakhile Ltd has the following cost components for 100,000 units of product for year 2003.

Raw materials	E200,000
Direct labour	E100,000
Manufacturing overhead	E200,000
Selling/Administrative expense	E150,000

All costs are variable except for E100,000 of manufacturing overhead and E100,000 of selling and admin expenses. What would be the cost to produce and sell 110,000 units?. (8 Marks)

Total (25 Marks)

QUESTION 3

The management of Bukisa Ltd is preparing a cash budget for the next four-month period. Relevant data for this budget are:

	March	April	May	June
Credit sales	E40,000	E38,000	E75,000	E65,000

Credit sales were E30,000 in January and E37,000 in February: in July, Credit sales are expected to be E85,000. Collections on account are made at the rate of 50% in the month following the sale and 40% in the second month following the sale.

Variable expenses other than purchases are equal to 25% of sales; 80% of these expenses are paid in the month incurred while 20% are paid for in the following month. Cost of goods sold is equal to 60% of sales, and purchases are made so that ending inventory is maintained at a level equal to 80% of the needs for the next month's sales. Fixed expenses are E10,000 per month.

Required:

Prepare a cash budget for the four-month period, March through June.

Total (25 Marks)

QUESTION 4

a) Consider the following linear program:

Maximize E2x + 3y
Constraints: $x + y \leq 2500$
$x + 3y \leq 4000$

Required:

A solution for the linear program, using the graphic method (9 Marks)

b) Moneni Sports producers manufacturers footballs and tennis balls. Each football sells for E30 and each tennis ball sells for E5. The variable costs of a football are E10 and the fixed costs allocated to the normal production level equal E2. Variable costs of a tennis ball are E2 and the fixed costs allocated to tennis balls are E2 per unit. There is a limitation of 1000 kgs of plastic that is used to manufacture both products. The tennis balls required the one kg per unit and each football requires 5kgs.

The demand for footballs is limited to 5000 units. Both products must be completed in the Finishing Department, where the equipment is limited to 500 hours use per period. Ten tennis balls can be manufactured in an hour, but only three foot balls can be produced per hour.

Required:

A linear program that would be used to represent this problem in equation form. Use x to represent footballs and y to represent tennis balls. (Do not solve the linear program) (6 Marks)

c) Bambanani Ltd manufactures two products x and y. The relevant data, per unit are:

	X	Y
Selling price	E10	E10
Material @ E0.50 per kg	E2.00	E3.00
Labour-process B @ E0.50 per hour	2.00	1.50
Other variable costs	2.50	2.75
Fixed costs	3.28	2.00

The fixed costs per unit are based on current budgeted production of 825 units of x and 500 units of y.

The capacity of process B is 4800 hours per month.

Owing to a shortage of supply, only 6000 kgs of material is available per month. No stock of raw materials or finished goods are carried forward from one month to the next.

Required:

Calculate how the available capacity should be used to maximize profits and to calculate what the maximum profit will be if it is possible to sell everything produced.

(10 Marks)

Total (25 Marks)

QUESTION 5

Total Eclipse Ltd which is engaged in the manufacture of a single product, the Blackout, uses standard costs and flexible budgets for management control purposes.

The standard cost per unit for direct material is 8 kilograms at E2. 40 per kilogram.

The budgeted direct labour for a 4 week period is 120, 000 hours at a budgeted cost of E336,000.

The budgeted variable production overhead cost for the same number of hours is E108,000.

During the period, actual direct wages incurred were E306, 912 and 42, 000 units of Blackout were produced.

Reported variances were:

Direct labour rate :	2 cents per hour favourable
Direct materials usage :	E38,400 (A)
Direct materials price	E38,000 (F)
Variable production overhead	E1, 200 (F)
Variable production overhead expenditure	E1, 500 (A)

The materials price variance was calculated on quantities purchased, and amounted to 10 cents per kilogram (favourable).

There were no opening stocks of direct materials, but closing stocks amounted to 28, 000 kilograms.

Required: for the period:

(a) the quantity of direct materials purchased; (4 Marks)
(b) the quantity of direct materials used in excess of the standard allowed (in kilograms), and the actual quantity used in total; (4 Marks)
(c) the variable production overhead efficiency variance; (4 Marks)
(d) the actual hours worked; (4 Marks)
(e) the standard hours allowed for the production achieved, and from this the standard hours per unit of Blackout. (4 Marks)
(f) actual variable overhead cost (2 ½ Marks)
(g) Actual overhead cost per unit (2 ½ Marks)
Total (25 Marks)