

**Course Code: AC 502 /IDE AC 502 (M) 2013**

**UNIVERSITY OF SWAZILAND  
DEPARTMENT OF ACCOUNTING  
MAIN EXAMINATION PAPER 2013**

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

**TITLE OF PAPER : MANAGEMENT ACCOUNTING II**

**TIME ALLOWED : TWO (2) HOURS**

**INSTRUCTIONS**

- :1. TOTAL NUMBER OF QUESTIONS ON THIS PAPER: FOUR (4)**
- 2. ANSWER QUESTION ONE AND ANY OTHER TWO 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 QUALITY OF EXPRESSION, TOGETHER WITH THE LAYOUT AND PRESENTATION OF YOUR FINAL ANSWER.**

**SPECIAL REQUIREMENTS : NONE**

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

### QUESTION 1

A. Sonke Ltd must decide between two investments, A and B, which are mutually exclusive.

The data on these projects are as follows: ( in thousands of Emalangeni)

Project	Year				
	0	1	2	3	4
A	(E100)	E120.00			
B	(E100)	-	-	-	E193.80

Required: (1) for each project compute:

- NPV at 12% cost of capital **(8 Marks)**
- IRR **(8 Marks)**
- Why are your rankings under NPV and IRR conflicting? Make recommendations on which project should be chosen **(8 Marks)**

B. Zuke Ltd is considering five different investment opportunities. The company's cost of capital is 12 percent. Data on these opportunities are as follows:

<u>Project</u>	<u>Investment</u>	<u>PV at 12%</u>	<u>NPV</u>	<u>IRR</u>	<u>Profitability Index</u>
A	E 35,000	E 39,325	E4325	16%	1.12
B	20,000	22,930	2930	15	1.15
C	25,000	27,453	2453	14	1.10
D	10,000	10,854	854	18	1.09
E	9,000	8,749	(251)	11	0.97

Required:

- Rank these five projects in descending order of preference according to :
  - NPV
  - IRR
  - Profitability index **( 5 Marks)**
- Which ranking would you prefer? Give reasons. **(5 Marks)**
- Based on your answer in part (b) which projects would you select if E55000 is the limit to be spent?. **(6 Marks)**

**Total (40 Marks)**

## **QUESTION 2**

Themba Ltd has two decentralised divisions. Division A manufactures its product at a variable cost of E5 per unit and fixed cost of E2 per unit. The product, which has a competitive market price of E10 per unit, is transferred to Division B. The transfer price used by Themba Ltd is the competitive market price. Division B finishes the product, thereby incurring additional variable costs of E4 per unit. Division B sells the finished product outside the company for E16 per unit.

### **Required:**

- a) Determine the profit for Divisions A and B and the Themba Ltd when 1000 units are produced by Division A and transferred to Division B. **(15 Marks)**
  
- b) In the above situation, are there any advantages in the interdivisional transfers, or would purchases from, and selling to the outside markets provide the same results. **(15 Marks)**

**Total (30 Marks)**

### QUESTION 3

- A. Global Services Company has two divisions, which are operated as investment centers. Information about these divisions is shown below:

	<b>Division # 1</b>	<b>Division #2</b>
Sales	E 2,400,000	E 4,200,000
Total variable costs	600,000	E 2,870,000
Total fixed cost	E 1,400,000	E 500,000
Average assets invested	E 2,200,000	E 6,100,000

**Required:**

- i) Determine the residual income of each division if the “charge” on invested assets is 10%. Which division is doing a better job? **(5 Marks)**
- ii) If the only change next year is that sales would increase by 15%, what would be the residual income of each division? Which division would be doing a better job? **(5 Marks)**
- iii) Why did the answers to the second question in parts (i) and (ii) differ? **(4 Marks)**

- B. Legal associates Ltd, has a target rate of return of 12% for its Corporate Law Division. For 2012, the Corporate Law Division generated gross fees of E4,000,000 on average assets of E2,000,000. The Corporate Law Division’s variable costs were 35% of sales and fixed costs were E1,55,000.

**Required:** For 2012, compute the division’s

- i) ROI **(4 Marks)**
- ii) Residual income **(4 Marks)**
- iii) Profit margin **(4 Marks)**
- iv) Asset turnover **(4 Marks)**

**Total (30 Mark)**

#### QUESTION 4

The following information is available to you for project X:

Activity	<u>Estimated times (days)</u>		<u>Estimated costs (Emalangeni)</u>	
	Normal	Crash	Normal	Crash
0-1	8	6	E 2.400	E 3,240
1-2	6	6	E 2.100	E 2,100
1-5	3	1	E 750	E 1,450
2-3	4	3	E 1.930	E 2,580
2-4	16	3	E 4.640	E 9,918
3-4	0	0	E 0	E 0
3-6	11	6	E 3.080	E 5,040
4-6	6	3	E 2.400	E 4,080
5-6	5	2	<u>E 1.300</u>	<u>E 2,392</u>
			<u>E18.600</u>	<u>E30.800</u>

**Required:**

Compute the minimum crash time of the project at the minimum cost

**(30 Marks)**