



**AFRICA  
UNIVERSITY**

*(A United Methodist-Related Institution)*

**“Investing In Africa’s Future”**

**FACULTY OF MANAGEMENT AND ADMINISTRATION**

**COURSE TITLE: MAC 204: BUSINESS FINANCE**

**SEMESTER 1: FINAL EXAMINATION -NOVEMBER 2013**

**LECTURER MR I. RARAMI**

**TIME: 3 HOURS**

***INSTRUCTIONS***

Answer all questions in **Section A** and any **3** questions from **Section B**

Section A carries **40** marks and each question carries **20** marks in section B

The marks allocated to each question are shown at the end of the question

Show all your workings

Credit will be given for presentations that are neat, logical and grammatically well constructed.

**SECTION A**

**MAC 204: BUSINESS FINANCE.**

Use of a non-programmable calculator is permissible.

**PAGE 1 OF 5**

***Answer all questions in Answer Books provided***

## Question 1

a). Mr investor invested \$1000 in a bank account that pays 6% interest compounded annually. How much will he have in the account at the end of 10 years if he make no withdrawals? [2]

b). Mrs investor also invested \$1000 in a bank account that pays 6%, simple interest. How much will she have in the account at the end of 10 years if he make no withdrawals?  
[2]

c). At the end of 10 years, who have more money between Mr and Mrs Investors, and why? [2]

d). Mr and Mrs Investor's daughter, Money, was told that if she invest \$2 000 in a bank for a period of 15 days out of 365 days in a year, she will receive \$40 interest. She is asking you, a business finance guru, the rate of interest the bank will be paying.  
[3]

e). Mr and Mrs Investor's son, Interest, wants to know how much money needs to be invested to guarantee him \$2 000 after 200 days if the interest rate is 5% per annum and the base day is 360 days. [3]

f). Mr Investor's father, invests \$4 000 in a commercial bank which offers 12% interest per year compounded quarterly for two years. What is the future value of his investment? [3]

g}. CC Ltd has just made an investment from which it expect to receive the following cash flows:

<b>Year</b>	<b>Cash Flows</b>
1	40
2	45
3	50
4	35
5	30

If the discount rate is 20% per annum and the cash flows are expected at the end of each year. What is the present value of this investment?  
[5]

h). A company has a return on equity of 25% and a reinvests of 35% of its earnings. Calculate the growth rate of the company. [2].

i). Zvakapusa Ltd's share is expected to pay a dividend of 20c in year 1, 24c in year 2 and 30c in year 3. The share is expected to be sold in year 3 at 220c and the investor's required rate of return is 18%. Calculate the value of the shares. [2].

j). The current dividend of Pass Well Ltd is 150c per share and that this dividend remains the same every year forever. If the required rate of return is 15%. Calculate the value of the share of stock. [2]

k). Wise Reader Ltd has just paid a dividend of \$3 per share. These dividends will grow at a rate of 5% per year forever. The required rate of return on similar dividends is 12%. Calculate the value of the share of stock. [2].

l). Diamond Money Ltd has just paid a dividend of 180c. The company has a return on equity of 25% and a reinvests of 45% of its earnings. The required rate of return on the stock is 15%. What is the value of the stock. [2]

m). No Miracle Pass Ltd is about to issue a preference shares with a par value of \$1.00 and a coupon dividend rate of 20% per annum. If the required rate of return for such preference shares on the market is 25% per annum, What is the value of the preference share. [2]

n). A firm has just paid a preference share dividend but expects to pass the next three dividends and resume regular payment thereafter. The preference shares have a par value of \$1.00, a coupon dividend rate of 24% per annum, and the required rate of return is 30% per annum. What is the value of the preference shares if the preference share dividends are cumulative. [4]

o). Mrs Bond Bond have a bond with a face value of \$100, a coupon rate of 25% per annum, a yield of 20% per annum and a maturity of 15 years. Caculate the value of Mrs Bond's bond and the premium. [2]

p). Mr Bond's son Rich have a bond with a face value of \$100, a coupon rate of 25% per annum, a yield of 28% per annum and a maturity of 15 years. Calculate the bond value of Mr Bond's son Rich and the discount [2]

## **SECTION B**

### **Question 2**

a). Capital Money Ltd last paid a dividend of 120c. The dividends are expected to grow by 40% per annum during the 3 year supernormal growth period when cost of equity is 30%. Thereafter, they will grow at 20% per annum and the cost of equity will be 25%

Calculate:

- i). The value of the shares in Capital Money Ltd. [8]
- ii). The value of the shares in Capital Money Ltd if there is no growth after supernormal growth period.[2].

b).A project with a cost of capital of 20% is expected to have the following cash flows:

Years	Cash Flows.
0	-\$750 000
1	200 000
2	250 000
3	300 000
4	320 000
5	350 000

i). Calculate the Internal Rate of Return and state whether the project should be accepted or rejected. [10]

### **Question 3**

The introduction of the USD has had a lot of effects on the working capital management of firms. The Finance manager of Think Big Ltd is interested in finding out whether there have been any changes in the operating cycle. The following information has been collected for the purpose of calculating the cash operating cycle:

	31 December	
	2011	2012
	\$	\$
Sales	3 240 000	3 600 000
Purchases of raw materials	1 125 000	1 687 500
Raw materials consumed	1 080 000	1 440 000
Cost of goods manufactured	2 160 000	2 880 000
Cost of goods sold	1 800 000	2 700 000
Debtors	540 000	800 000
Creditors	156 250	375 000

Inventory: Raw materials	90 000	60 000
Work in progress	60 000	120 000
Finished goods	25 000	75 000

- i). Use a 360 day year to calculate the cash operating cycle and discuss the change in the cycle. [12]
- ii). Explain what the cash operating cycle really means and its implications to working capital management especially in the current Zimbabwean environment. [3]
- iii). State and briefly explain any two short term and two long term sources of finance. [5]

#### **Question 4**

- a). Give the major arguments in the dividend irrelevance theory and the dividend relevance theory, giving your views on what happens in practice. [10]
- b). State and briefly explain five types of dividend policy. [10]

#### **Question 5**

Mr Business is considering two products, Product A and Product B, with estimated outcome and associated probabilities.

<b>Product A</b>		<b>Product B</b>	
Probability of outcome	Possible outcome	Probability of outcome	Possible outcome
25%	24%	10%	40%
50%	10%	30%	30%
25%	-4%	60%	-5%

#### **Required:**

- i). Calculate the expected return of each product. [6]
- ii). Calculate the variance of each product. [12]
- iii). Calculate the standard deviation of each product and advise Mr Business on the product which is less risk, between the two [2]