



FACULTY OF MANAGEMENT AND ADMINISTRATION

**COURSE TITLE: MEC205 MONEY AND BANKING
MAC207 MONEY AND CAPITAL MARKETS**

SEMESTER 1: FINAL EXAMINATION- NOVEMBER 2013-CONV

LECTURER: MR T. MASESE

TIME: 3 HOURS

INSTRUCTIONS

Answer **ALL** Questions in this Paper

Total possible mark is **60**.

Start **each** question on a new page in your answer Booklet.

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

Show all your workings.

Question 1**(20 marks)**

- a. Rutendo has been offered four investment opportunities, all equally priced at \$50000. Because the opportunities differ in risk, Rutendo's required rate of return (applicable discounts rates) are not the same for each opportunity. The cash flows and the required returns for each opportunity are summarized below:

Opportunity	Cash Flows	Required Return														
I	\$90000 at the end of 5 years	15%														
II	<table><tr><td>Year</td><td>Amount</td></tr><tr><td>1</td><td>\$10000</td></tr><tr><td>2</td><td>\$12000</td></tr><tr><td>3</td><td>\$18000</td></tr><tr><td>4</td><td>\$10000</td></tr><tr><td>5</td><td>\$13000</td></tr><tr><td colspan="2">Assume payments are received at the beginning of each year.</td></tr></table>	Year	Amount	1	\$10000	2	\$12000	3	\$18000	4	\$10000	5	\$13000	Assume payments are received at the beginning of each year.		12%
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III	An annual payment of \$6000 received semi-annually for the next 15 years	10%														
V	\$8000 at the beginning of each year for the next 20 years	18%														

- Find the present value of each of the four investment opportunities **(9 marks)**
 - Which, if any, opportunities are acceptable **(2 marks)**
 - Which opportunity should Rutendo take? Explain your answer **(2 marks)**
- b. If capital markets and the banking system are left unregulated two problems, adverse selection and moral hazard, arise between lenders and borrowers due to information asymmetry. Define information asymmetry and briefly explain these two problems explaining why they arise. Outline the major regulatory mechanisms applied by the government to the financial sector **(7 marks)**

Question Two**(20 marks)**

- a. Delta (Pvt) Ltd has two bond issues outstanding. Both bonds pay \$100 annual interest plus \$1000 at maturity. Bond L has a maturity of 15 years and Bond S has a maturity of 1 year.
- What will be the value of each of these bonds when the going rate of interest is (1) 8% (2) 10% and (3) 12%. Assume that there is only one more interest payment to be made on Bond S. **(6 marks)**
- b. Why would you be willing to make a loan to your neighbor by putting funds into a savings account earning 5% interest rate at the bank and having the bank lend her the funds at a 10% interest rate rather than lend her the funds yourself? Briefly explain why the government strictly regulates the financial system. **(5 marks)**

- c. A stock is trading at \$80 per share. The stock is expected to have a year-end dividend of \$4 per share ($D_1 = 4$) which is expected to grow at some constant g throughout time. The stock's required rate of return is 14%. If you are an analyst who believes in efficient markets, what is your forecast of g ? Explain your answer **(2 marks)**
- d. An Econet stock's return depends on the state of the economy whose state ranges from being strong, normal or weak. If the chances of a strong economy are three out of every ten times and the chances of a weak economy are four out of every times and the respective returns when the economy is strong, normal or weak are 20%, 15% or -10%, calculate this stock's expected return and its risk **(6 marks)**
- e. What is the future value of a 7%, 6 year ordinary annuity that pays \$3000 each year? If this were an annuity due, what would the future value be? **(4 marks)**

Question Three

(20 marks)

- a. Turnal P/L is experiencing a period of rapid growth. Earnings and dividends are expected to grow at a rate of 12% during the next 2 years at 10% in the 3rd year and at a constant rate of 5% thereafter. Turnal is expected to pay a dividend of \$1.288 at the end of year 1 and the required rate of return on the stock is 13%
 - i. Calculate the expected dividends for Years 2, 3, 4 and 5 as well as the value of the stock today **(5 marks)**
 - ii. Calculate P_1^* and P_2^* **(3 marks)**
 - iii. Calculate the dividend yield and capital gains yield for Years 1, 2 **(4 marks)**
- b. Richmond has just contracted to sell a small piece of land that he inherited from his father a few years ago. The buyer is willing to pay \$25000 at the closing of the transaction or will pay the amounts shown in the following table at the beginning of each of the next 5 years. Because Richmond does not really need the money today, he plans to let it accumulate in an account that earns 7% annual interest. Given his desire to buy a house at the end of five years after closing the sale of land, he decides to choose the payment alternative that provides the highest future value at the end of five years.

Mixed Stream of Cash flows	
Beginning of Year (t)	Cash Flow
1	\$4000
2	\$2000
3	\$8000
4	\$6000
5	\$10000

- i. What is the future value of the lump sum at the end of year 5? **(3 marks)**
- ii. What is the future value of the mixed stream at the end of year 5? **(3 marks)**
- iii. Based on your answers in (i) and (ii) above, which alternative should Richmond take? **(2 marks)**

END OF PAPER