



**AFRICA
UNIVERSITY**

(A United Methodist-Related Institution)

“Investing in Africa’s Future”

COURSE TITLE: MEC207 MONEY AND BANKING
MAC205 MONEY AND CAPITAL MARKETS

SEMESTER: ONE

EXAMINATION: FINAL EXAMINATION- NOV 2014

LECTURER: MR T. MASESE

TIME: 3 HOURS

INSTRUCTIONS

Answer **Questions ONE** and **ANY** other **ONE** Question from 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.

Credit will be awarded for logical, systematic and neat presentations.

Question One

(40 marks)

- a. Suppose an investor has 3 stocks, namely Delta, Barclays and Econet and the Zimbabwean economy can turn out to be strong, normal, moderate or weak depending on the outcome of the political and economic developments in the country. The return on each of the stocks depends on the state of the economy as outlined in the following probability distribution table.

State of the Economy	Probability of State of Economy	Delta Stock	Barclays Stock	Econet Stock
Strong	0.10	25%	5%	100%
Normal	0.35	15%	10%	29%
Moderate	0.30	4%	19%	15%
Weak	0.25	0%	35%	(70%)

- Calculate the expected return, the stand alone risk and coefficient of variation for each of the stocks **(9 marks)**
 - Suppose you hold a \$50000 portfolio and have invested 25% of this in Econet stock and the balance is divided equally between the other two stocks. Calculate the expected return, variance and standard deviation of a portfolio consisting of the three stocks. What would it mean if the correlation coefficient of this portfolio is equal to -0.9? **(8 marks)**
 - Risk premium is the additional return offered on more risky investments relative to safer ones. Outline the main risk premiums that used to compensate investors for taking risky investments **(5 marks)**
 - What is the relationship between risk and return? Define risk attitude and outline the main investor risk attitudes. Outline any four factors that influence an investor's risk attitude. **(5 marks)**
- b. Enactus P/L is experiencing a period of rapid growth after discovering a carbohydrate-free ice cream. Earnings and dividends are expected to grow at a rate of 18% during the next 2 years at 15% in the 3rd year and at a constant rate of 8% thereafter. Enactus' next dividend is expected to be \$2.00 per share and investors require a rate of return of 13% on the stock. Calculate how much you would be willing to pay for 3000 shares of Enactus stock today and how much you sell each stock for at the end of year 1 and end of year 2. What is your total return in each of the 2 years and how much of this return is from dividends and from capital gains **(13 marks)**

Question Two

(25 marks)

- a. With the aid of a flow diagram briefly explain how funds flow through the financial system clearly distinguishing between direct and indirect finance. What is asymmetric

information in financial systems? Explain the major problems that arise due to asymmetric information in financial markets. Explain the role of financial intermediaries in reducing these problems. **(9 marks)**

- b. Briefly explain the difference between:
 - i. Primary and secondary markets **(1 mark)**
 - ii. Money and Capital markets **(1 mark)**
 - iii. Stand alone risk and portfolio risk **(1 mark)**
 - iv. Risk averse and risk-indifferent investors **(1 mark)**
 - v. Ordinary annuity and annuity due **(1 mark)**
- c. Suppose that you want to buy a car on an “easy payment” scheme of \$5,000 a year at the end of each of the next 5 years. What is the present value of this payment scheme if interest rate is 10%? How would this change if you made your first deposit of \$5000 now? **(3 marks)**
- d. In terms of the timing of their payments, there are four basic types of credit market instruments. List and explain each of them **(4 marks)**
- e. What are the two parts of a stock’s expected total return. Assume that Macro Diamond’s next dividend is \$1.242. The dividend yield for this stock is 5.4% and its investors expect the dividend to grow at a constant rate of 8% into the future. Calculate D_0 , D_{10} , D_{25} and the value the Macro Diamond P/L share today **(4 marks)**

Question Three

(25 marks)

- a. Explain the following financial instruments and classify them as capital or money market instruments:
 - i. Negotiable certificate of deposit **(1 mark)**
 - ii. Bankers’ acceptance **(1 mark)**
 - iii. Repurchase agreement **(1 mark)**
 - iv. Stock **(1 mark)**
- b. Fuel P/L has an issue of preferred stock outstanding that pays a dividend of \$7.50 every year in perpetuity. If this issue currently sells for \$60 per share, what is the required rate of return on this stock **(2 marks)**
- c. For each of the following assets, indicate which of the monetary aggregates (M_1 , M_2 , M_3) includes them:

- i. Currency and current account deposits (1 mark)
 - ii. Money market mutual funds (1 mark)
 - iii. Small-denomination time deposits (1 mark)
 - iv. Large-denomination repurchase agreements (1 mark)
- d. You plan to make a series of deposits in an interest-bearing account. You will deposit \$5000 today, \$2000 at the end of 2 years and \$8000 at the end of 5 years. If you withdraw \$4000 at the end of 3 years and \$2000 at the beginning 7 years, how much will you have in the account after 8 years if interest rate is 10%? (3 marks)
- e. Outline and explain the efficient market hypothesis (EMH) and its various forms (7 marks)
- f. Suppose that your auto dealer gives you a choice between paying \$15,500 cash for a new car or entering into an installment plan where you pay \$8,000 down today and make payments of \$4,000 in each of the next two years. Which is the better deal for the car dealer assuming an interest rate of 8%? (4 marks)

-END OF PAPER-