



# MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)  
University Examinations for 2015/2016

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

SECOND SEMESTER EXAMINATIONS FOR DEGREE IN

BACHELOR OF ECONOMICS AND FINANCE

**EAE 202: FINANCIAL INSTRUMENTS AND RISK MANAGEMENT**

**Date: 3/8/2016**

**Time: 8:30 – 10:30 AM**

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## INSTRUCTIONS

**Answer question ONE and any other TWO**

### QUESTION ONE

- a) Define the following terms as used in finance
- i) Arbitrage
  - ii) Securities
  - iii) Covenants (6 marks)
- b) Distinguish between the following pair of terms (4 marks)
- i) American Option and European Option
  - ii) Bear Market and Bull market
- c) Although similar in nature, forwards and futures exhibit some fundamental differences in the organization and the contract characteristics. The most important differences are given in table below. Complete the table (7 marks)

Comparison	Forward	Futures
Traded on organized exchanges	No	
Nature of contracts		
Credit risks		
Delivery		
Markets are transparent		
Profits or losses realized daily		
Collateral		
Market participants		Wide Variety

- d) Consider a 4 year coupon bond with a face value of Ksh 1000 sold at Ksh 950 with an interest rate of 11 percent and paid semi annually
- i) What is the price of this bond ( 3 marks)
  - ii) Suppose the bond in question above is a consol what is its price (3 marks)
- e) Calculate the yield to maturity of a 10 year zero coupon bond whose value is KSH 10,000 and sells for
- i) KSH 8,000 (3 marks)
- f) What is meant by "a highly leveraged company"? Between debts and equities which one is more risky? Explain why ( 4 marks)

## QUESTION TWO

- a) For the past one year the Kenyan banking industry has seen three commercial banks in Kenya i.e. Dubai bank, Imperial bank and the recent Chase bank placed under receivership due to what the central bank of Kenya termed as "serious liquidity challenges and capital difficulties". Suppose that the receiver i.e. Kenya Deposit Insurance Corporation (KDIC) has employed you as one of their policy analysts.
- i) Discuss the policy measures you would recommend to ensure that the banks under receivership resumed their normal operations within the shortest time possible. (7 marks)
  - ii) Discuss the policy measures you would recommend to ensure that no any other bank is placed under receivership in future. (7 marks)

iii) Explain what happens to the following stake holders when a bank is placed under receivership

- i) The share holders (3 marks)
- ii) The Bond holders (3 marks)

### QUESTION THREE

- a) Using relevant examples explain what embedded derivatives are (8 marks)
- b) Explain factors that shift the bond demand curve (6 marks)
- c) Highlight and discuss the main characteristics of a plain vanilla option (6 marks)

### QUESTION FOUR

- a) Suppose that you have been hired as a risk manager of XYZ consulting company. Your role is to advise financial institutions on various types of risks they are likely to face in their operations and way of mitigating these risks. Discuss what you will include in your presentation to a client. (10 marks)
- b) Hedging involved transferring risk to speculators. Discuss how hedges uses various financial instruments to achieve this objective (10 marks)

### QUESTION FIVE

- a) Financial records from Kihiu Mwiri (K) limited indicate that the net asset worth of the company as of 31<sup>st</sup> April 2016 was USD 5 Million. On average the company has an annual asset growth of 40%. Last year Kihiu Mwiri (K) limited issued a special 5 year bond with a coupon yield of 10% paid semi annually. It is expected that the holders of the bond will receive 10000 after maturity. If the current debt ratio of general motors' (K) Ltd is 10%
  - i) What is the price of this bond?
  - ii) How much will the bond holder earn from the bond by the end of next year?
  - iii) What is the current total debt liability for Kihiu Mwiri (K) limited
  - iv) If the bond was convertible after 3 years and each bond was split into 500 shares of common stock, what would be the least price for each stock? (8 marks)

- g) Compare and contrast common shares and preferred shares (6 marks)
- h) Financial institutions can be broadly classified as Depository financial institution, Contractual savings institutions and investment intermediaries. Highlight two examples of these institutions of each classification and two roles they play in an economy. (6 marks)