KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ECONOMICS AND FINANCE

EAE 202: FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

DATE: Tuesday 28th November 2017 **TIME: 8.00a.m -10.00a.m**

INSTRUCTIONS:

i. **ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS.**

ii. **SHOW YOUR WORKING CLEARLY.**

QUESTION ONE (30 MARKS)

a) You have purchased a newly issue Ksh. 10,000 five-year Shanik ltd at par. This five-year bond pays Ksh. 600 in interest semiannually. You are also considering the purchase of another Shanik ltd bond that returns Kshs. 300 in semiannual interest payment and has six years remaining before it matures. This bond has a face value of Ksh. 17,000.

   i. If the inflation rate is 4 percent, what is the real annual return on the five-year bond. [5 marks]

   ii. Assume that the rate you calculated in part (i) is the correct rate for the bond with six years remaining before it matures. What should you be willing to pay for that bond? [5 marks]

b) Financial market report more frequent activities than markets for physical assets. With the help of relevant examples explain why investors prefer holding financial rather than physical assets. [6 marks]

c) Briefly explain two uses of options to an investor. [4 marks]

d) Compare and contrast ordinary shares and bonds. [10 marks]

QUESTION TWO (20 MARKS)

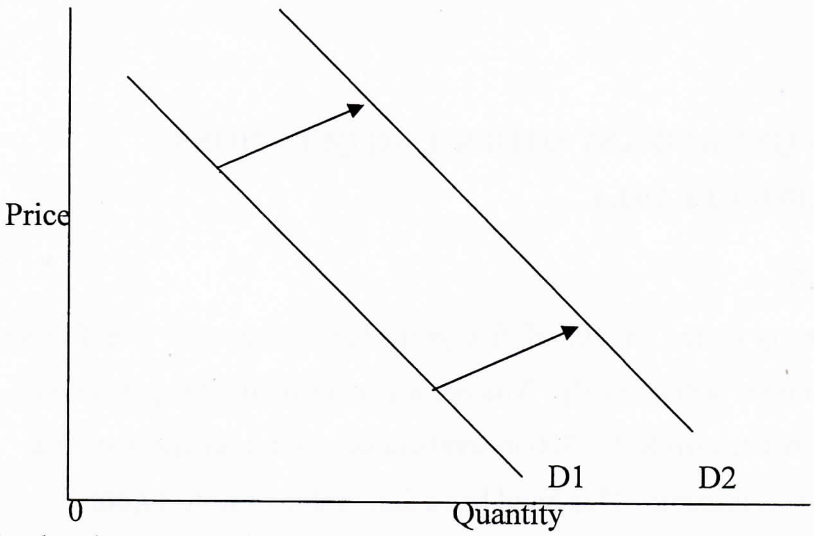
a) i) With the help of a graphical illustration, state and explain the expectations hypothesis. [6 marks]

ii) Assume there are a 4 percent yield on a 1 year bond and a 7 percent on a 30 year bond in the market. Prove the expectations hypothesis in part (i) above. [8 marks]

b) Define a contingent convertible bond and differentiate between the trigger and the conversion rate. [6 marks]

QUESTION THREE (20 MARKS)

a) The figure below shows a development in bond market.



Identify the development and discuss any three factors that may prompt this development. [6 marks]

b) The total market value of an initial portfolio is Kshs. 200,000. An investor has risk tests (R) and non-risk assets (N) in his portfolio. If Kshs 115,000 is invested in risk assets (R) and Kshs. 85,000 is invested in non-risk assets (N), what is the weight of R and N in the complete portfolio? [4 marks]

c) Consider a two year 10% level coupon bond with a face value of KES1,000. Assuming that the interest is paid annually, find its price if the market rate of interest is;

i. 10%

ii. 9%

iii. 13% [4 marks]

d) Using your findings in (c) state the conditions under which bonds trade at

i. A discount [2 marks]

ii. A premium [2 marks]

iii. The Face Value [2 marks]

QUESTION FOUR (20 MARKS)

a) MADLAX LTD issued a fixed payment bond with a semiannual payment of KES100,000 for a period of 3 years. If the prevailing market rate is 10 percent per annum, what is this bond equivalent today? [6 marks]

b) Differentiate between a call option, a put option and an underlying asset. [6 marks]

c) Consider a bond that has a market price of Kshs 10000, it promises to pay a coupon payment of 10% p.a. at the end each year for two years and has a face value of Kshs. 1,500. Find its

i. Current yield to maturity [4 marks]

ii. Yield to maturity [4 marks]

QUESTION FIVE (20 MARKS)

a) Briefly explain why a lower strike price implies that a call option will have a higher premium and a put option a lower premium. [6 marks]

b) The table below shows prices of East African Breweries (EABL) and Kenya Commercial Banks shares (KCB) in the Nairobi Securities Exchange (NSE) and Uganda Security Exchange (USE) in Kenya Shilling.

Exchange/shares	NSE	USE
EABL	355	325
KCB	60	65

i. Where would you buy and sell each of the shares (ignoring exchange rate risk) [2 marks]

ii. What is the economic significance of your actions in (i) above. [2 marks]

c) Explain **five** characteristics of preferred shares. [10 marks]