



**STRATHMORE BUSINESS SCHOOL
BACHELOR OF FINANCIAL SERVICES
END OF SEMESTER EXAMINATION**

BFS 2101: FINANCIAL INSTITUTIONS AND MARKETS

Date: Thursday, 4th August 2022

Time: 2 hours

INSTRUCTIONS

- 1) Answer question one and any other two questions**
- 2) Question one is compulsory and carries 30 marks**
- 3) All other questions carry 20 marks each**

Question One

- a) Define a financial market distinguishing it from a commodities market (2 marks)
- b) “Derivatives in themselves may not guarantee an efficient market, however they can make a financial market to be efficient”
Discuss the above statement stating if it is true or not true (5 marks)
- c) A financial system comprises of many players who engage in different roles including financial intermediation to ensure financial goals are met. Discuss financial intermediation giving details about types of financial intermediation. (8 marks)
- d) Discuss financial system regulation giving reasons as to why regulation is important. (3 marks)
- e) Equities are some of the instruments that trade in the capital markets. Explain three reasons why equities have the most risk of all the financial securities (3 marks)
- f) Define the following terms in derivatives market
 - (ii) Long and short positions (2 marks)
 - (iii) Maintenance margin (2 marks)
- g) A company would wish to issue 15 years bond, at a discount of 10%, with a coupon rate of 16%, a par value of Kes1,000, and it is expected to mature at a redemption price, quoted at 120.
 - i. Calculate the current yield of the bond (2 marks)
 - ii. Calculate yield to Maturity of the bond (3 marks)

(TOTAL 30 MARKS)

Question Two

- a) Explain any four characteristics of Money markets (4 marks)
- b) Discuss any six money market financial instruments (6 marks)
- c) The par value of a one-year treasury bill is Kshs. 10,000. The government would wish to issue this bill at a discount through an auction process. If the required rate of return is 11.8%, calculate the minimum discount price you should accept to buy this bill. (2 marks)
- d) Using specific examples explain how the following players participate in financial intermediation
 - i. Commercial banks, and SACCOs (2 marks)
 - ii. Brokers and Arbitrageurs (2 marks)
- e) Commercial banks are involved in maturity intermediation. Discuss the serious risk/problem they face as they engage in maturity intermediation. (4 marks)

(TOTAL 20 MARKS)

Question Three

Professor George Arkelof, in his paper “The market for lemons” presents a critical financial concept, which helps learners of financial markets understand the behavior of financial institutions.

- a) Explain this critical financial concept as presented in the market for lemons paper. (4 marks)
- b) State two major problems that adverse selection causes to the financial system. (2 marks)
- c) Choose any two financial institutions and explain how they deal with information asymmetry problem. (4 marks)
- d) Explain the difference between a conversion value of a bond and conversion price of a bond. (2marks)
- e) A company’s current share price is kes 90, and the conversion ratio for a bond with a par value of ksh 3000, issued ten years ago is 32:1. Calculate the conversion value of the bond. (2 marks)
- f) In reference to the bond in part e above, if the bond has a par value of Ksh 3000, and has a current market price of ksh 2980. Would you convert it if today was the conversion date as per the bond agreement? Give a reason for your answer (3 marks)
- g) Explain the advantages to both the bond issuer and bondholder for issuing a puttable bond (3 marks)

(TOTAL 20 MARKS)

Question four

- a) Discuss four monetary policy tools and measures that central banks apply to regulate commercial banks. (5 marks)
- b) Discuss any four factors that influence the issue price of a bond. (4 marks)

- c) Explain the relationship between bond prices, yields and market interest rates taking into consideration the price and reinvestment risk. (4 marks)
- d) The principal amount of a bond is Kes 1,000, the maturity is 20 years, the coupon rate is 14%, and interest payments are made annually. The market interest rate used to discount the bonds' expected cash flows until maturity is assumed to be constant at 14%. The bonds are issued and redeemed at par. For the partially amortized bond, the balloon payment is kes 450 at maturity.
Calculate the cash flows if:
- (i) the bond is a bullet bond (1 marks)
 - (ii) the bond is fully amortized bond (3 marks)
 - (iii) the bond is partially amortized bond (3 marks)

(TOTAL 20 MARKS)

Question Five

- a) Define a derivative financial asset in finance. (2 marks)
- b) Explain why a puttable and callable bond can be regarded as a derivative. (4 marks)
- c) Daira goes long on a put option on a share with Daudison. The put option has a premium of kes 14. The strike price is Kes 75 after ten days. Currently the share has a market price of kes 74. The price of the share on the 10th day can either be Kes 98 or 55
Required:
- (i) Calculate the pay-offs for the Long on both prices (3 marks)
 - (ii) Calculate the pay-offs for the Short on both prices (3 marks)
- d) Define
- i. Forwards and Futures (2 marks)
 - ii. Options and swaps (2 marks)
- e) The following information relates to futures on equity whose current market price is Ksh 55. It has a futures price of kes 60 at day 5. It has a margin account of kes 10 and a maintenance margin is 50% of the margin amount. The following are the prices of the underlying from day zero to day 5.

Day	0	1	2	3	4	5
Price	55	57	51	64	68	57

Required

- i. Show the mark to market process for the above agreement (4 marks)

(TOTAL 20 MARKS)