MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.
Tel: +254(0) 799 529 958, +254(0) 799 529 959, +254 (0)712 524 293
Website: www.must.ac.ke Email: info@mucst.ac.ke

UNIVERSITY EXAMINATIONS 2024/2025

FIRST YEAR FIRST SEMESTER EXAMINATION FOR DEGREE OF MASTERS OF SCIENCE IN FINANCE

BFS 5156: MANAGEMENT OF FIXED INCOME SECURITIES

DATE: JANUARY 2025 **TIME: 3 HOURS**

INSTRUCTIONS: Answer Question ONE and any other THREE questions.

QUESTION ONE (24 MARKS)

a) Explain importance of hedging against investment risks and support with hypothetical examples. (6 marks)

b) Differentiate between active Investments and passive investments (8marks)

c) Mr. Kamau is investment guru in Nairobi and has approached you for advice based the following information that he got from investment broker who is introducing him to bond market. The proposed bond has the following characteristics, face value of a bond is ksh. 1000 and it is currently selling at ksh. 1200 with a coupon rate of 12% and 10 years to maturity.

Required

Calculate the current yield from the bond (10marks)

QUESTION TWO (12 MARKS)

Maendeleo Industries is concerned about interest rates rising. It needs to borrow in the bond market three months hence. The company believes that an option on treasury bond futures is the best hedging device.

a) Should the company buy a put option or a call option? Explain. (4marks)

b) Presently, the futures contract trades at Sh.1,000 and 3 month put and call options both involve premiums of 1½ per cent based on this strike price. During the 3 months, interest rates rise, so that the price on a treasury bond futures contract goes to Sh.950. What is your gain or loss on the option per sh. 1,000,000 contract? (8 marks)

QUESTION THREE (12 MARKS)

a) Explain the role played by the financial intermediaries in investment markets (4marks)

b) Goldstar Manufacturing Limited is evaluating an investment opportunity that would require an outlay of sh.100 million. The annual net cash inflows are estimated to vary according to economic conditions.

Economic conditions	Probability	Cash flow **Sh- million**
Very good	.10	35
Good	.45	28
Fair	.30	24
Poor	.15	18

The firm's required rate of return is 14 percent. The project has an expected life of six years

Required:

Compute the expected net present value (NPV) of the proposed investment. (8 marks)

QUESTION FOUR (12 MARKS)

a) Discuss swaptions as hedging strategy in the international investment markets (4 marks)

b) Highspeed Electronics Limited has taken delivery of 100,000 electronic devices from an American company. The seller is in a strong bargaining position and has priced the devices in American dollars at $24.00 each. Highspeed Electronics Limited has been granted three months credit. Assume that interest rates in America are 6% per quarter (three months). Highspeed electronics Limited has all its money tied up in its operations but it could borrow in dollars at 6% per quarter if necessary. Foreign exchange rates

	US$ =Sh. 1
Spot	0.013
Three month forward	0.0154

A three-month dollar call option for US$ 1200,000 is available at a premium of

US$30,000

Required:

Using suitable computations, illustrate two hedging strategies available to Highspeed Electronics Limited. (8 marks)

QUESTION FIVE (12 MARKS)

a) Explain the following types of foreign currency risk exposure:

   i. Transaction exposure (2 marks)

   ii. Translation exposure (2 marks)

   iii. Economic exposure (2 marks)

b) Discuss factors that affect interest rates in the market (6 marks)