(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

FOURTH YEAR FIRST SEMESTER

MAIN EXAM

FOR THE DEGREE OF BACHELOR OF COMMERCE

COURSE CODE : **BCF 411.**

COURSE TITLE : **SECURITY ANALYSIS AND SECURITIZATION**

DATE: 12TH APRIL, 2023 **TIME: 9.00AM – 11.00AM**

INSTRUCTIONS TO CANDIDATES

1. Answer a total of **three** questions; question **one** and any other **two** questions.
2. Question **one** carries **30** marks and each of the other two questions carry **20** marks each

TIME: 2 HOURS

KIBU observes ZERO tolerance to examination cheating

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SECTION A

QUESTION ONE.

(a) Security analysis and securitization is one task that is considered critical to any prudent investment decision. Briefly discuss. **(6 Marks).**

(b) Konza Ltd, an energy distribution Company based in Nairobi Kenya has an outstanding 12 percent bond issue with face value of Kshs 14,000 per bond and 6 years to Maturity. Interest is paid annually. The bonds are privately held by Faida Insurance Company. Faida insurance company wishes to sell the bonds and is negotiating with another party. It estimates that in the current market conditions, the bonds should provide a (nominal annual) return of 15 percent.

Required.

(i) What price would Faida Insurance Company be able to realize on the Bond sale? **(4 Marks).**

(ii) What would be price per bond in (i) above if interest payments were made semi-annually? **(4 Marks).**

(c) Technical analysts believe that one can use past price changes to predict future price changes. How do they justify this belief? **(4 Marks).**

(d) Alfred, an investor based in Nairobi Kenya has just obtained the following information about ABC Ltd.'s call option:

- ABC Ltd.'s stock price is Kshs 60 for a six month option.
- The exercise price is Kshs 60 for a six month option.
- The standard deviation is 40 percent.
- The risk free rate of interest is assumed to be 14 percent.

Required.

(i) Determine the value of the call option using the Black-Scholes option valuation model. **(10 Marks).**

(ii) If the current value ABC Ltd.'s stock is shs 24, what would be Alfred's investment decision going forward. **(2 Marks).**

SECTION B.

QUESTION TWO.

(a) Johnsons Ltd. is a chemical manufacturing firm based in Nairobi, Kenya. According to the latest financial reports covering the trading period 2021/2022, the rate of return on its stock during the past 5 years is 14 percent. This rate of return is expected to continue for the next 6 years. Thereafter the rate of return is expected to grow at the rate of 10 percent indefinitely.

Dividend was paid to the company's shareholders during the 2021/22 period at the rate of 18 percent.

Equity investors require a return of 22 percent.
Johnsons Ltd.'s stock is currently selling for shs 26.

Required.
Calculate the intrinsic value of Johnsons Ltd.'s stock.
Arising from the finding in (i) above, advise Johnsons Ltd.'s investors regarding what to do with their current investments going forward.

(10 Marks).

(b) With specific reference to Industry analysis, explain the usefulness of past sales and earnings performance of an industry in forecasting the future prospects of the industry.

(10 Marks).

QUESTION THREE.

(a) Corporate bond issued by M/s Rexon Ltd has a market price of Shs 125,000 and a par value of shs 120,000.It has an interest rate of 12% p.a and matures after 6 years.

Required.

(i) Calculate the rate of return, an investor would receive if he buys this bond and holds it till maturity. **(4 Marks).**

(ii) Compute the Macaulay's duration of the Bond. **(6 Marks).**

(b) With specific reference to the term structure of interest rates:

(i) Briefly explain why bonds of different maturities have different yields in terms of the expectations and liquidity preference theory. **(4 Marks).**

(ii) Briefly describe the implications of each hypothesis when the yield curve is(1).Upward sloping and (2) Downward sloping. **(6 Marks).**

QUESTION FOUR.

(a).The differences among option prices are the result of interaction of a number of different forces. In the context of this statement, highlight and briefly explain six fundamental direct determinants of option value. **(10 Marks).**

(b) Discuss the assumptions underpinning the Black- Scholes (B-S) option valuation model as well as its limitations. **(10 Marks).**

QUESTION FIVE.

(a). The following information is available about Bond X.

Face Value	Interest rate (%)	Maturity (Years)	Current Price
100,000	0	1	90,000
100,000	10	2	98,000
100,000	12	3	98,600
100,000	14	4	99,800

Required.

Calculate the bond's forward interest rates. **(10 Marks).**

'(b) The competitive structure of an industry differs from Industry to Industry. However in the opinion of Michael Porter (Harvard University),there are certain competitive forces which decide the attractiveness and profitability of an industry.
Discuss in detail the essence of Porter's Model. **(10 Marks).**