CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF COMMERCE

BCOM 431: FINANCIAL MANAGEMENT II

STREAMS: BCOM   **TIME: 2 HOURS**

DAY/DATE: THURSDAY 23/09/2021   **8.30 A.M – 10.30 A.M.**

INSTRUCTIONS:
  • **Answer question ONE and any other TWO questions.**

QUESTION ONE

(a)   The following information is extracted from the books of Sasha Ltd as at 31st December 2020.

Trade debtors	15,000,000
Trade creditors	6,000,000
Sales	100,000,000
Purchases	80,000,000
Gross profit margin	25%
Inventory turnover	5 times

All sales and purchases were on credit. Assume a year has 360 days

Required:
Calculate the net operating cycle of the firm.   (7 marks)

(b)   Explain the different forms of efficient market hypothesis and the test carried out to support each of the forms.   (9 marks)

(c)   Calculate the no arbitrage forward price for a 120 day forward on a stock that is currently priced at Sh. 40 and is expected to pay a dividend of 0.4 in 15 days, Sh. 0.5 in 90 days and Sh. 0.6 in 180 days. The annual risk free rate is 5% and the yield curve is flat (dividends accrue evenly) Assume a year has 360 days.   (5 marks)

(d)   Explain any three stock market anomalies.   (6 marks)
(e)   Distinguish between a long call and a short call.   (3 marks)

QUESTION TWO

(a)   Compute call option and put option by applying Black Scholes option pricing model on
        the following values.   (8 marks)

        Current market price of the share sh75
        Variance of the underlying stock 0.2025
        Exercise price Sh.80
        Risk free rate 0.12
        Time to expiration 180 days

(b)   Discuss the factors affecting the value of options.   (6 marks)

(c)   Mr. William enters into two year 20 million USD quarterly swap as a fixed payer and
        will receive the index return on the Nairobi stock exchange (NSE 20 share index). The
        fixed rate is 10% and index is currently at 2,000. At the end of the next three quarters the
        index level is 2200, 1900 and 2400. Required; calculate the net payment for each of the
        next 3 quarters and identify the direction of payment.   (6 marks)

QUESTION THREE

(a)   Diamond bank enters into a 2 million dollar quarter pay plain vanilla interest rate swap as
        the fixed rate payer at a fixed rate 8% based on a 360 days year. The floating rate payer
        agrees to pay 90 day libor plus 1% margin, libor is currently 6%

        90 day libor are;
        6%, 90 days from now
        7%, 180 days from now
        8%, 270 days from now
        9%, 360 days from now

        Required; calculate the amount that bank A pays or receives 90 days, 270 days and 360
        days from now?   (6 marks)

(b)   Explain the uses of interest rate swaps.   (4 marks)

(c)   An investor has bought a put option for selling 100 shares with a strike price of Sh. 70.
The   option expires in 3 months, if the prevailing market price is Sh. 55 and the price for
        acquiring the option is Sh.7. What is the investors pays off if the share price is 50, 60, 70,
        80, 90 and 100.   (5 marks)

(d)   Describe the different types of forward contracts.   (5 marks)

QUESTION FOUR

(a)   A company is considering relaxing its credit standards, the firm currently credit terms is net 20 but the average collection period is 45 days. Current annual sales amount to Sh.10 million, the firm wants to extend the period to net 90, with that sales will increase by 15%   and bad debts will increase from 3% to 4% of annual credit sales. Collection cost will increase from 80,000 to 170,000. The return on investment in debtors is 13%. Selling price   per unit is Sh. 100 and the variable cost per unit is Sh. 80. Assume a year has 360 days.   Required should the firm change the credit policy.   (7 marks)

(b)   Briefly explain the approaches that could be used by a company to finance its working capital requirements.   (6 marks)

(c)   On 1st January 2013 a trader buys gold futures contract. The current future price is USD 1000 per Ounce. Assume initial margin is USD 3,000 and maintenance margin is USD 2,000. The standard quantity is 200 ounces.

 Required
Determine the date when there is margin call and margin balance of last day of trading if the prices of the asset vary as follows;   (7 marks)

Date	Price
1	1000
2	995
3	987
4	990
5	992
6	995
7	987
8	981