**CHUKA UNIVERSITY**

## UNIVERSITY EXAMINATIONS

**CHUKA/THARAKA**

**FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF COMMERCE**

**BCOM 431: FINANCIAL MANAGEMENT II**

**STREAMS: BCOM Y4S1** **TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 4/12/2019** **11.30 A.M – 1.30 P.M**

**INSTRUCTIONS**

**Answer question one and any other two questions**

**Do not write anything on the question paper**

**QUESTION ONE**

(a) Explain any three characteristics of an efficient capital market. [3 marks]

(b) Explain any five implications of efficient market hypothesis to financial decision makers. [10 marks]

(c) Consider a two year put option with a strike price of ksh 54 on a stock whose current market price is ksh 50. Suppose there are two time steps of one year and in each time step the stock price moves up by 25% or down by 25%. Suppose the risk free rate is 5%.

**Required :**

Calculate the value of the put option using binomial model and assuming it is a European option. [8 marks]

(d) Assume a 3month forward contract exists on a bond that does not offer any coupon. The face value of the bond is ksh 1,000,000 but is currently trading at ksh 500,000 from available market data the risk free rate of interest p.a is 6%.

**Required :**

(i) Calculate the forward contract price under non arbitrage principle. [2 marks]

(ii) Assume that after exactly 2 months, the spot price of the bond is ksh 515,000 while the risk free rate remains unchanged . Determine the value of the long and short positions in the forward contract. [4 marks]

(e) Mr. Smith enters into a 2 year USD 10 million quarterly SWAP as a fixed payer and will receive the index return on 5 and 500. The fixed rate is 8% and the index is currently 990. At the end of the next three quarters the index level is 1040, 970 and 994.

**Required :**

Calculate the net payment for each of the next three quarters and identify the direction of payment. [3 marks]

## QUESTION TWO

(a) Explain any six differences between futures contracts and forward contracts. [6marks]

(b) Research has revealed that capital markets of some countries have exhibited some predictable price patterns which is against the efficient market hypothesis.

**Required :**

Explain any four such anomalies experienced in the capital market. [8marks]

(c) Consider a call option on the share of company XYZ with the following characteristics.

- (i) The current market price of share kssh 23
- (ii) The exercise price is ksh 18
- (iii) The risk free rate is 6%
- (iv) The time to expiration is 6 months
- (v) Standard deviation of the stocks return is 0.5

**Required ;**

Determine the value of this option. [6 marks]

## QUESTION THREE

(a) Explain any four uses of deviations . [4 marks]

(b) Bank B enters into a 1 million dollar quarterly pay plain vanilla interest rate SWAP as the fixed rate payer at a fixed rate of 6.5% based on a 360 days year. The floating rate payer agrees to pay 90 day LIBOR plus 0.5% margin. A 90 days LIBOR is currently 4.5% . the 90 day LIBOR rates are

4.5% 90 days from now

5.0% 180 days from now

6.0 % 270 days from now

7.0% 360 days from now

**Required:**

Calculate the amount that bank B pays or receives 90 days , 180 days, 270 days and 360 days from now. [10 marks]

(c) Suppose that a dealer quotes these terms on a fire year SWAP fixed rate payer to pay 9.5% for LIBOR and floating rate payer to pay LIBOR for 9.2%. What is the dealers bid-ask spread. [2 marks]

(d) Explain the process of marking to the market in futures contrast. You can use a suitable example in your explanation. [4 marks]

**QUESTION FOUR**

(a) Museto ltd is considering relaxing its credit standards. The firms current credit terms are net 30 days but the average collection period is 60 days current annual sales amount to ksh 5 million. The firm wants to extend the period to net 90 days . This will result to sales increasing by 30% bad debts increasing from the current level of 3% to 4% of annual credit sales and collection costs increasing by ksh 120,000. The return on investment in debtors is 10% selling price per unit is ksh 100 and variable cost per unit is ksh 70.

Assume a year has 360 days

Required : should the firm change the credit policy. [9 marks]

(b) Explain the three approaches to financing current assets. [6 marks]

(c) The following information was extracted from the books of shamba ltd as at 31$^{st}$ December 2006.

Trade debtors balance (31$^{st}$ December 2006) ksh 10 million

Trade creditors balance (31$^{st}$ December 2006) ksh 3 million

Sales for the year ksh 80 million

Purchases for the year ksh 60 million

Gross profit margin 25%

Inventory turnover 4.8 times

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

**Required;**

Calculate the net operating cycle of the firm. [5 marks]

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