

STREAMS: BCOM (Y3S1)
TIME: 2 HOURS
DAY/DATE: FRIDAY 07/12/2018
2.30 P.M. - 4.30 P.M.

INSTRUCTIONS:

- Answer question ONE and any other TWO questions
- Do not write on the question paper

QUESTION ONE
(a) Differentiate between capital structure and financial structure
[4 marks]
(b) Using a suitable diagram, explain the efficient set of investment of a portfolio consisting of two assets
(c) The following information relates to a portfolio of two assets A and B

| Probability | Return on asset A (\%) | Return on Asset B (\%) |
| :---: | :---: | :---: |
| 0.1 | 6 | 14 |
| 0.2 | 8 | 12 |
| 0.4 | 10 | 10 |
| 0.2 | 12 | 8 |
| 0.1 | 14 | 8 |

The assets are held in a portfolio consisting of $40 \% \mathrm{~A}$ and $60 \% \mathrm{~B}$.

## Required:

(i) Compute the portfolio expected return [4 marks]
(ii) Compute the portfolio risk [6 marks]

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(d) ABC Ltd belongs to a risk class whose appropriate capitalization rate is $10 \%$. It currently has 5000 outstanding ordinary shares selling at sh. 100 each. The firm is contemplating declaration of a dividend of ksh 6 per share at the end of the current financial year. The company expects to have a net income of ksh 50,000 and has a proposal of making new investment of ksh 100,000

## Required:

Show under MM hypothesis that the payment of dividend does not affect the value of the firm
marks]
(e) Explain the motives behind leasing as a form of financing

## QUESTION TWO

(a) A ltd has decided to acquire B ltd by offering 2 shares for every 5 shares of B ltd. The following are the relevant data for the two companies

|  | A ltd | B ltd |
| :--- | :--- | :--- |
| Net sales (sh) | 350000 | 45000 |
| PAT (sh) | 28130 | 3750 |
| Number of shares | 7500 | 1500 |
| EPS (sh) | 3.75 | 2.5 |
| Dividend per share | 1.3 | 0.6 |
| Total market capitalization | 420000 | 45000 |

## Required:

(i) Pre-merger market price per share for each of the companies
(ii) Post-merger EPS of the combined firm
(iii) Post-merger MPS of the combined firm
(iv) Post-merger $\mathrm{P} / \mathrm{E}$ ratio of the combined firm
(v) Total market capitalization of the combined firm
(vi) The gain from merger for the shareholders of A ltd
(b) Explain any four ways in which a target company can defend itself from a potential acquisition

## QUESTION THREE

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(a) Explain MM proposition II
(b) Assume a firm has an annual net operating income of ksh.100000, an average cost of capital $\left(K_{o}\right) \quad$ of $10 \%$ and an initial debt of ksh 500,000 at $6 \%$ rate of interest

## Required:

(i) Calculate the value of the firm under net operating income approach
(ii) Calculate the equity capitalization rate [3 marks]
(c) Suppose two firms $U$ and $L$ are identical in all aspects except for their capital structure. Their operating income is sh. 10,000 for each firm. Firm $L$ is levered with a market value of equity of ksh. 60,000 and a market value of debt of ksh. 50,000 . Firm $U$ is unlevered and has a total market value of ksh. 100,000.

Firm L debt is at an interest rate of $6 \%$. Assume that you own $20 \%$ of levered firm L.

## Required:

Applying MM hypothesis proposition I, show how arbitrage will take place to restore the market equilibrium
(d) The following information has been extracted from the books of XYZ ltd for the year ended $31^{\text {st }}$ December 2005

Earnings after tax sh. 7.5 million
Total dividends paid sh 4.5 million
No of outstanding ordinary shares is 1 million
Cost of capital is $10 \%$
Internal rate of return on investment is $12.5 \%$

## Required:

Calculate the market value of the company's shares using Walters model

## QUESTION FOUR

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(a) XYZ ltd is interested in acquiring the use of an asset costing ksh. 500,000. It has two options:
(i) To borrow the amount at $18 \%$ interest per annum repayable in 5 equal year end installments and use the amount to buy the asset or,
(ii) To take the asset on lease for a period of 5 years at the year-end lease rentals of ksh 120000

The corporate tax rate is $50 \%$ and depreciation is allowed on written down value of the asset at a rate of $20 \%$. The asset will have a salvage value of ksh. 180000 at the end of 5 years

## Required:

Advice the company on whether to buy or lease the asset
[16 marks]
(b) Differentiate between financial leverage and operating leverage

