TECHNICAL UNIVERSITY OF MOMBASA

School of business

DEPARTMENT OF ACCOUNTING AND FINANCE

MASTER OF SCIENCE IN FINANCE

BFI 5206: INVESTMENT FINANCE

SPECIAL/SUPPLEMENTARY EXAMINATIONS

SERIES; NOVERMBER 2024

TIME; 3 HOURS

Instructions;

Answer question one and any other TTHREE questions

Do not write on this paper

Question One

(a) Financial markets are crucial for economic development in any country. Briefly explain the five major functions of a financial market. **(8 marks)**

(b) Briefly describe the various securities traded in the financial markets. **(8 marks)**

(c) Anna is considering investing in a bond currently selling in the market for sh. 875. The bond has four years to maturity, a sh.1000 face value and a 7% coupon rate. The next annual interest payment is due one year from today. The appropriate discount rate for the securities of similar risk is10%.

Required:

(i) Estimate the intrinsic value of the bond. Based on the result of this estimation, should Ann purchase the bond? Explain. **(4 marks)**

(ii) Estimate the yield-to-maturity of the bond. Based on the result of this estimation, should Ann purchase the bond? Explain. **(5 marks)**

(iii) Swaps are very important means by which the investor's portfolio position is improved or protected. Briefly describe the types of swaps **(5 marks).**

d) Taranda limited is an all equity financed company with a cost of 18.5% the company is considering the following one year investment projects

Project	Outlay	Annual cash flow	Beta
	sh. 000	sh. 0000	sh. 000
A	3,000	2,095	0.3
B	3,000	2,130	0.5
C	3,500	2,780	1.0
D	4,000	3,385	1.5
E	4,000	3,400	2.0

The risk-free rate of return is 8% and market rate of return is 15%

Required:

i. The beta factor of Taranda limited **(4 marks)**

ii. The required rate of return and expected return of each of the above projects indicating which project the company should undertake and which ones to reject **(6 marks)**

Question Two

(a) Black-Scholes model is the most discussed model used in valuing options. Briefly discuss the various parameters used in Black-Scholes model **(8 marks)**

(b) **(i)** A preferred stock has a coupon rate of 8% and par value of sh.25. Currently it is trading at a price of sh.27.50 per share. Calculate the dividend yield. **(5 marks)**

(c) (ii) A 10-year convertible bond with a par value of sh.1000 has a conversion ratio of 20. Its market price is sh.1,050. Currently the common stock of the same company is trading at sh.42 per share.

Required:

(i) The conversion price. **(3 marks)**

(ii) Calculate the conversion value and conversion premium of this bond. **(4 marks)**

Question Three

(a) Investors constantly monitor and change their portfolio. Briefly discuss factors which influence this exercise. **(6 marks).**

(b) Briefly distinguish between sharpe's ratio, Treynor"s ratio and Jensen's alpha as measures of portfolio performance. **(6 marks)**

(c) Convertible bonds are very popular investment vehicles as compared to both stock (shares) and ordinary bonds. **(8 marks)**

Question Four

a) Mr. Charles Kabazi has a capital of 1,000,000 which he wishes invest in three sectors of the economy agriculture, service and manufacturing. The funds will be allocated as follows: Sector Agriculture Service Manufacturing Amount invested 400,000 200,000 200,000 Details on the possible future economic states their probabilities of occurrence and the expected return for each of the sectors is as shown below

Possible future Economic state	Probability of occurrence	Expected return of each sector		
Manufacturing		Manufacturing	Agriculture	Service
Recession	0.1	16	14	3
Average	0.4	14	19	5
Boom	0.5	20	22	6

Required:

i. Determine the risk associated with the investment in each of the three sectors above

(5marks)

ii. Determine the expected portfolio return (5 marks)

(b) Briefly explain the role of capital market theories (10 marks)

Question Five

a)Two blue chip companies – Abu Ltd and Ada Ltd are seeking to raise funds from venture capital to boost their production in order to satisfy demand for their solar powered refrigeration and air-conditioning systems, which they developed through a joint venture. They have consulted you for advice.

Required:

Prepare a write-up on merits and demerits of using venture capital as opposed to other sources. **(8 marks)**

b) The market price of a security is $50. Its expected rate of return is 14%. The risk-free rate is 6% and the market risk premium is 8.5%. What will be the market price of the security if its correlation coefficient with the market portfolio doubles (and all other variables remain unchanged)? Assume that the stock is expected to pay a constant dividend in perpetuity.

Required:

Calculate the market price **(4 marks)**

(c) Briefly explain the following terms:

(i) Overcapitalization **(4 marks)**

(ii) Overtrading **(4 marks)**

QUESTION TWO

(a) (i) Over capitalization refers to a situation where a company has more or excess capital at its disposal than what is required for its normal and optimal operation or utilization. When a company has issued more debt and equity than its assets are worth. An overcapitalized company might be paying more than it needs to in interest and dividends. Reducing debt, buying back shares and restructuring the company are possible solutions to this problem. (3 marks)

(b) (ii) Overtrading is a situation where a company or firm has insufficient or inadequate cash or near cash resources at its disposal to conduct its operations due to rapid growth. The indicators of overtrading are: • High utilization of trade credit with large creditor positions • Large turnovers with no corresponding increase in cash or cash equivalents • Funding or liquidity challenges etc (3 marks)

c) i) A stock split simply divides existing outstanding shares held by shareholders into multiple shares. i.e. if you own one share before a 2-for-1 split, you will own 2 shares after. A scrip issue works in almost the same way except that instead of having your shares split into 2, the company issues you one additional fully paid share free of charge so that you will also own 2 shares after the bonus issue. (3 marks)

ii) Why a company will embark on scrip issue One of the major reasons why companies declare bonus issues is that a higher number of shares improves float and liquidity and thereby traded volumes of the stock. A lower price also makes the stock seem more affordable to small retail investors, who might otherwise give it a miss at high price levels. Another aspect of a bonus issue is that it reflects the confidence of the company in its ability to service a larger equity base. Thus, bonus issues are said to be a good signaling mechanism on the company's capacity to deliver future benefits to shareholders in terms of increased dividend. (2 marks)

b) Two blue chip companies – Abu Ltd and Ada Ltd are seeking to raise funds from venture capital to boost their production in order to satisfy demand for their solar powered refrigeration and air-conditioning systems, which they developed through a joint venture. They have consulted you for advice

solution

(b) Venture capitalist Venture capitalist will evaluate proposal for funding based on a number of criteria including the following

- Nature of the company's products The products of the company should enable it generate adequate sales and profits that are sustainable for it to be attractive to venture capital investment.
- Expertise in production Technical ability should be demonstrated through efficient production and value driven skills and competencies.
- Expertise in management Management should demonstrate commitment, skills, and experience in promoting the objectives of the organization.
- The market and competition The company's proposal should demonstrate that it has a competitive strategy to maintain and expand its market share
- Future profits The prospects of the company in generating future profits are realistically expressed in its business plan and proposal.
- Board membership The company should have a board of directors who will take decisions and consider the interest of the stakeholders
- Risk borne by existing shareholders Significant part of the company's funding is from its owners who also bear the major part of the company's risk (Any 5 points for 5 marks) (Total: 20 marks)