TECHNICAL UNIVERSITY OF MOMBASA

School of Business

DEPARTMENT OF ACCOUNTING AND FINANCE

UNIVERSITY EXAMINATIONS FOR DEGREE IN

MASTERS OF SCIENCE IN FINANCE

BFI 5101: FINANCIAL MANAGEMENT

MAIN EXAMINATIONS
SERIES: APRIL 2025
TIME: 3 HOURS

INSTRUCTIONS:
Answer Question **ONE (Compulsory)** and any other **Three** questions
This paper consists of Four printed pages

QUESTION ONE (Compulsory)

Make finance affordable for traders

In the past two weeks, we have explored two of the three pivotal challenges facing economic development in Kenya: Corruption and the regulatory environment. Today, we turn our attention to what many consider the glue that binds the economy together - finance. It would be no exaggeration to say that one of the most pressing challenges highlighted by the entrepreneurs we've spoken to in the last few months is the cost of borrowing. They all expressed how often it stands as a barrier to expansion in Kenya. When borrowing is affordable and straightforward, it opens doors for companies to invest in equipment, enhance technology, and expand their workforce. This investment fuels business growth, boosts production, improves products, and creates job opportunities.

However, when borrowing is expensive or difficult to access, businesses hesitate to expand or innovate, stifling growth. If entrepreneurs take expensive loans, they are forced to ensure high productivity by raising profit margins (making products expensive) or cutting costs, including salaries and investments, leading to job losses. Is Kenya's cost of borrowing high for no fault of our own? While some "high risk" designations for developing countries may be unsubstantiated, legitimate macroeconomic factors lead to "high risk" ratings.

In 2024, Kenya made international headlines with the downgrade of its creditworthiness to B-, signaling the need for fiscal reform. This downgrade raised alarms among global investors about Kenya's economic stability, leading to higher interest rates and urging the country to innovate and strengthen its macroeconomic environment. A supportive ecosystem for business is crucial for economic growth and must be prioritized by government.

A key indicator of a healthy economy is sound debt management. Kenya's debt levels have risen from 17 per cent of GDP in 2003 to 70 per cent, surpassing the IMF's recommended threshold of 50 per cent for developing nations.
This reflects challenges in our macroeconomic fundamentals and presents an opportunity for transformation. With a debt burden higher than the Sub-Saharan African average of 43 per cent, Kenya must restructure its debt, cut unnecessary spending, and expand its economy to achieve debt sustainability.
Think of the economy as a pie. When the pie is small, everything we do to share it among more people is problematic. We must expand the pie. To achieve our dream of shared prosperity we must diversify our economy, expand income streams, enhancing exports and attract foreign investments.
(Article Extract by Wanjira Mathai, Daily Nation Newspaper, Friday, December 27, 2024)

Required:

a) Explain any Five sources of capital that has been expressly stated or implied in the above case (10 marks)
b) Explain the Four Main functions of Finance in an organization and how each function may impact on the traders and entrepreneurs' prospects (12 Marks)
c) Explain the relationship between business Risk and Expected return in relation to business (8 Marks)
d) A company is earning a sum of Ksh. 200,000,000 and the rate of return expected is 10%. This company will be said to be properly capitalized. The current capital investment of the company is Ksh. 2,400,000,000. Explain if the company is over or under capitalized and its effect to the company's earnings. Further describe how that situation can be remedied (10 Marks)

QUESTION TWO

a) Habib Industries Ltd. has assets of Ksh 16,000,000 which have been financed with Ksh. 5,200,000 of debt and Ksh. 9,000,000 of equity and a general reserve of Ksh. 1,800,000. The firm's total profit after interest and taxes for the year ended 31st March 2020 were Ksh 1,350,000. It pays 10% interest on borrowed funds and is in the 30% tax bracket. It has 90,000 equity shares of Ksh. 100 each selling at a market price of Ksh. 120 per share. Calculate weighted average cost of capital (8 Marks)

b) Cost of equity capital is the rate at which investors discount the expected dividends of the firm to determine its share value. Conceptually the cost of equity capital (K_e) defined as the "Minimum rate of return that a firm must earn on the equity financed portion of an investment project in order to leave unchanged the market price of the shares". Describe any four approaches that can be used to estimate Cost of Equity. (12 Marks)

QUESTION THREE

a) Generally, a manufacturing company should aim for a working capital level that allows it to fund its operations efficiently while maintaining a healthy cash flow position. A well-managed manufacturing company typically aims to maintain a working capital ratio of 1.2 to 2.0. Explain any Five factors that influence working capital requirement in a company (10 marks)

b) Dividend policy remains a key topic in corporate finance, with theories debating its impact on firm value and shareholder wealth. While the Modigliani-Miller theorem argues for dividend irrelevance, other theories suggest dividends influence investor behavior through signaling, risk reduction, and liquidity preferences. Taxation and capital gains considerations further shape investor decisions. Describe the investor preferences for liquidity, risk aversion, and taxation influence their choice between cash and stock dividends, and how do these align with dividend policy theories (10 marks)

QUESTION FOUR

Jamaica limited is interested in assessing the cash flows associated with the replacement of an old machine by a new machine. The old machine bought a few years ago has a book value of Ksh. 900,000 and it can be sold for Ksh. 900,000. It has a remaining life of five years after which its salvage value is expected to be nil It is being depreciated annually at the rate of 20%using reducing balance method. The new machine costs Ksh. 4,000,000. It is expected to fetch Ksh 2,500,000 after five years when it will no longer be required. It will be depreciated annually at the rate of $33\ ^{1}/_{3}$ % using reducing balance method. The new machine is expected to bring a saving of Ksh 1,000,000 in manufacturing costs. Investment in working capital would remain unaffected. The tax rate applicable to the firm is 30%.

Required:

a) Find out the relevant cash flow for this replacement decision. Ignore capital gain taxes. (8 Marks)
b) Estimate the Internal Rate of Return (IRR) of the investment (12 Marks)

QUESTION FIVE

a) Amaco Ltd. needs Ksh. 6,000,000 for the installation of a new factory. The new factory expects to yield annual earnings before interest and tax (EBIT) of Ksh 1,000,000. In choosing a financial plan, Amaco Ltd., has an objective of maximizing earnings per share (EPS). The company proposes to issue ordinary shares and raise debt of Ksh. 600,000 or Ksh. 2,000,000 or Ksh. 3,000,000. The current market price per share is Ksh. 250 and is expected to drop to Ksh. 200 if the funds are borrowed in excess of Ksh. 2,400,000. Funds can be raised at the following rates.
   - up to Ksh. 600,000 at 8%
   - over Ksh. 600,000 to Ksh. 3,000,000 at 10%
   - over Ksh. 3,000,000 at 15%

   Assuming a tax rate of 30% advise the company on the best capital structure using the traditional approach. (12 Marks)

b) Capital structure is the major part of the firm's financial decision which affects the value of the firm and it leads to change EBIT and market value of the shares. Explain the major theories explaining the relationship between capital structure, cost of capital and value of the firm. (8 Marks)

Table A-3 Present Value Interest Factors for One Dollar Discounted at k Percent for n Periods: $PVIF_{k,n} = 1 / (1 + k)^n$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.6944	0.6504	0.6400	0.5917
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.5787	0.5245	0.5120	0.4552
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823	0.4230	0.4096	0.3501
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4019	0.3411	0.3277	0.2693
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3349	0.2751	0.2621	0.2072
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.2791	0.2218	0.2097	0.1594
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326	0.1789	0.1678	0.1226
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938	0.1443	0.1342	0.0943
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615	0.1164	0.1074	0.0725
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1122	0.0757	0.0687	0.0429
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0935	0.0610	0.0550	0.0330
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779	0.0492	0.0440	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649	0.0397	0.0352	0.0195