TECHNICAL UNIVERSITY OF MOMBASA

School of Business

DEPARTMENT OF ACCOUNTING AND FINANCE

UNIVERSITY EXAMINATIONS FOR DEGREE IN
BACHELOR OF COMMERCE
BACHELOR OF BUSINESS ADMINISTRATION

BFI 4203: BUSINESS FINANCE

MAIN EXAMINATIONS
SERIES: DECEMBER 2024
TIME: 2 HOURS

INSTRUCTIONS:
Answer Question **ONE (Compulsory)** and any other **TWO** questions
Don't Write on this Question Paper
This paper consists of Four printed pages

QUESTION 1 (Compulsory)

China limited; an engineering firm wishes to setup a firm in Mombasa at a cost of Ksh 900,000,000. The firm is being offered finances from three sources whose repayment plan is as follows:

- Source 1: An annual repayment of Ksh 127,244,155.81 for 15 years
- Source 2: An annual repayment of Ksh 140,779,988.91 for 12 years
- Source 3: An annual repayment of Ksh 155,538,952.66 for 10 years

The current prevailing interest rate is 11%

Required:

a) Explain any Five sources of finance to fund available for China limited (10 marks)
b) Calculate the total interest payable (using the present value approach) under each source above and advise China limited on the best option to take (12 Marks)
c) Explain the Four Main functions of Finance (8 Marks)

QUESTION 2

a) The following information was extracted from the books of a manufacturing company for the year ended 31st December 2021.

	Sh.
30,000 ordinary shares of @ 200	300,000
Retained earnings	42,500
10% debentures	90,000

Payables	47,500
Bank overdraft	20,000
Fixed assets	250,000
Inventory	75,000
Receivables	125,000
Cash	50,000

Required:

Compute and interpret the following ratios:

i). Debt equity ratio (3 Marks)

ii). Acid test ratio (3 Marks)

iii). Net profit if Earnings per share is Ksh 1.5 (3 Marks)

b) The capital structure of Mayaimoto Limited is given below:

	Ksh.
Fully paid ordinary shares	16,000,000
8% preference shares	10,000,000
10% long term debentures	14,000,000
	40,000,000

The company intends to raise additional finance as follows:

Sh. 60,000,000 from issuing 7% debentures

Sh. 40,000,000 from selling new ordinary shares at a flotation cost of Sh. 5 per share

The current market value of each ordinary share is Sh. 50. The shareholders expect a dividend of Sh. 5 share next year. The dividends grow at the rate of 10% per annum into perpetuity. The debentures of the company have a face value of Sh. 100 each with market value of Sh. 120. The company's tax rate is 30%.

Required:

i. The company's weighted average cost of capital (WACC) (7 marks)

ii. The marginal cost of capital (4 marks)

QUESTION 3

a) Discuss any three money market players in Kenya (6 marks)

b) Discuss any Four functions of Central Depository System as applied in capital markets in Kenya. (8 marks)

QUESTION 4

Bwana Mali purchased is considering whether to buy a Motorcycle at a cost of 550,000. The asset will be financed through a loan whose after-tax cost of capital is expected to be 12%. The motorcycle is expected to have an economic life of 5 years.

Required:

a) The motorcycle is expected to earn a cash inflow of Ksh 200,000 at the end of first year. The annual cashflows are expected to decline at a constant rate of 10%, and the expected scrap value at the end of economic life is Ksh 27,321.60. Calculate the Net Present Value and Profitability index and Advise Bwana Mali whether to buy the motorcycle or not. (12 Marks)

b) The loan taken by Bwana Mali is to be repaid through equal annual installments for 5 years. Calculate the installment amount and prepare the loan repayment schedule (8 Marks)

QUESTION 5

a) The following information was extracted from the books of a Makande manufacturing company for a Period of 365 days:

	Ksh		Ksh
Average Total of Debtors Outstanding	960,000	Value of Average	
Raw Material Consumption	8,800,000	Stock maintained:	
Total Production Cost	20,000,000	Raw Material	640,000
Total Cost of Sales	21,000,000	Work-in-progress	700,000
Sales for the year	32,000,000	Finished Goods	520,000

Average period of credit allowed by suppliers 25 days

Required:
Compute the operating cycle in terms of days and amount of working capital needed for the firm. (8 marks)

b) Bakuri ltd. Shares of are very competitive in the market. The company declared a dividend of Ksh 4.18 during the last financial year. The dividend is expected to grow at a rate of 15% for the first 3 years, then at 12% for the following 2 years. Thereafter the growth will be at a constant rate of 7% indefinitely. The company's required rate of return is 10%.
Required:
Calculate the intrinsic value of the ordinary share (6 marks)

c) Describe Dividend Discounting Model (DDM) as used in cost of equity calculations and valuation of securities and state its main assumptions. (6 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

Table A-4 Present Value Interest Factors for a One-Dollar Annuity Discounted at *k* Percent for *n* Periods: $PVIFA = [1 - 1/(1 + k)^n] / k$

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	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5278	1.4568	1.4400	1.3609
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.1065	1.9813	1.9520	1.8161
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.5887	2.4043	2.3616	2.1662
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	2.9906	2.7454	2.6893	2.4356
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.3255	3.0205	2.9514	2.6427
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.6046	3.2423	3.1611	2.8021
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	3.8372	3.4212	3.3289	2.9247
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.0310	3.5655	3.4631	3.0190
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188	4.8332	4.1925	3.6819	3.5705	3.0915
11	10.368	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377	5.6869	5.4527	5.2337	5.0286	4.3271	3.7757	3.6564	3.1473
12	11.255	10.575	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944	5.9176	5.6603	5.4206	5.1971	4.4392	3.8514	3.7251	3.1903
13	12.134	11.348	10.635	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235	6.1218	5.8424	5.5831	5.3423	4.5327	3.9124	3.7801	3.2233
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282	6.3025	6.0021	5.7245	5.4675	4.6106	3.9616	3.8241	3.2487
15	13.865	12.849	11.938	11.118	10.380	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474	5.5755	4.6755	4.0013	3.8593	3.2682