KASNEB

CIFA PART II SECTION 3

CORPORATE FINANCE

WEDNESDAY: 23 November 2016.   **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

(a)   "Mergers and acquisitions have become an essential tool for corporate growth in today's global market place. However. there are instances where firms may seek to acquire their competitors to eliminate competition in the market and obtain market power. To prevent such anticompetitive mergers, most competition authorities have come up with some form of merger review mechanism". Willard Mwemba, Commission Manager for mergers and acquisitions, Common Markets for Eastern and Southern Africa Competition Commission, July 2015.

Required:
In the context of the above statement. discuss the following post-offer takeover defence mechanisms:

(i)   Litigation.   (1 mark)

(ii)   Greenmail.   (1 mark)

(iii)   Leveraged recapitalisation.   (1 mark)

(iv)   Crown jewel.   (1 mark)

(v)   White knight.   (1 mark)

(vi)   White square.   (1 mark)

(b)   Explain four mechanims that could be used to motivate managers to act in the best interest of shareholders in a corporate firm.   (4 marks)

(c)   Fabtex Ltd. is an expanding clothing retailer which is all equity financed by ordinary share capital of Sh.10 million with a par value of Sh.0.50. The company's annual results have just been announced at the end of October 2016 as follows:

1.   Pre-tax profits were Sh.4.6 million. Earnings are expected to grow at a rate of 5% per annum in the coming year and for the foreseeable future.

2.   Another company. Toddler Garments Ltd.. a children's clothing group. has unissued share capital of Sh.33 million with a par value of Sh.1.00. The company's pre-tax profits for the year ended 31 October 2016 were Sh.5.2 million. There is no growth forecast for the current year due to a recent reorganisation and rationalisation program. but subsequently. constant growth in earnings of approximately 6% per annum is predicted.

3.   Fabtex Ltd. has approached the shareholders of Toddler Garments Ltd. with a bid of two new shares in Fabtex Ltd. for every three shares of Toddler Garments Ltd. There is a cash alternative of Sh.1.35 per share.

4.   Following the announcement of the bid, the market price of Fabtex Ltd. shares reduced while the market price of shares in Toddler Garments Ltd. increased. Statistics for Fabtex Ltd. and two other listed companies in the same industry immediately prior to the bid announcement are as shown below:

2015 Market price per share		Company	Dividend yield (%)	Price to earnings (P/E) ratio
High Sh.	Low Sh.			
2.25	1.85	Fabtex Ltd.	3.4	15
1.45	1.15	Toddler Garments Ltd.	3.6	13
1.87	1.22	HR Garments Ltd.	6.0	12
2.30	1.59	SZ Garments Ltd.	2.4	17

5.   Both Fabtex Ltd. and Toddler Garments Ltd. pay corporation tax at the rate of 30%.

6.   Fabtex Ltd. cost of capital is 12% while the cost of capital for Toddler Garments Ltd. is 11%.

Assume you are a corporate financial analyst with a major fund manager. You have funds invested in both Fabtex Ltd. and Toddler Garments Ltd.

Required:

(i)   Assess whether the proposed share for the offer is likely to be beneficial to the shareholders of Fabtex Ltd. and Toddler Garments Ltd. (9 marks)

(ii) Recommend an investment strategy based on your calculations in (c) (i) above. (1 mark)

(Total: 20 marks)

QUESTION TWO

(a)   Differentiate between the "trade off theory" and the "pecking order theory" as used in the analysis of capital structure of a firm. (4 marks)

(b)   (i)   Explain the term "cash sweep" in relation to leveraged buyouts (LBO). (2 marks)

(ii) A leveraged buyout transaction is measured at Sh.1,000 million and has the following characteristics:

1.   Exit occurs in five years at a projected multiple of 1.80 of the company's initial cost.
2.   It is financed with 60% debt and 40% equity.
3.   The Sh.400 million equity investment is composed of:
     • Sh.310 million in preference shares held by the private equity firm.
     • Sh.80 million in equity held by the private equity firm.
     • Sh.10 million held by management equity participation.
4.   Preference shares are guaranteed a 14% compound annual return payable at exit.
5.   The equity of the private equity firm is promised 90% of the company's residual value at exit after creditors and preference shares have been paid.
6.   Management equity receives the other 10% residual value.
7.   By exit, the company will have paid off Sh.350 million of the initial Sh.600 million in debt using operating cash flow.

Required:

The payoff multiple of the equity claimants. (6 marks)

(c)   The following is an extract of a statement of financial position of ABC Limited for the year ended 31 December 2015:

	Sh."million"		Sh."million"
Cash	150	Accounts payable	600
Accounts receivable	800	Short-term debt	250
Inventories	700	Total current liabilities	850
Total current assets	1,650	Bonds	800
Non-current assets	1,850	Deferred tax	350
Total assets	3,500	Shareholders equity	1,500
		Total equity and liabilities	3,500

Additional information:

1.   The short term debt relates to a Sh.250 million bank loan with an interest rate of 6% per annum.
2.   The bonds have a face value of Sh.800 million and are straight bonds maturing in 2025 with a coupon rate of 7.8% paid annually at the end of the year. At the end of the year 2015, the yield-to-maturity was 8.1% with a bond price of Sh.98.00 per Sh.100 par value.
3.   ABC Limited has 50 million ordinary shares issued and outstanding. At the end of year 2015, the share price was Sh.40.
4.   The risk free rate is 5%, the stock market risk premium is 6%, and the beta for ABC Limited shares is 1.20.
5.   An investment bank proposes a deal in which ABC Limited would reduce its weighted average cost of capital (WACC) by issuing bonds worth Sh.300 million and using the proceeds to repurchase shares, thereby increasing ABC's debt ratio and allowing it to take advantage of increased tax benefits.
6.   The corporate tax rate is 30%.

Required:

The change in the weighted average cost of capital (WACC) after the change in capital structure as proposed.

(8 marks)

(Total: 20 marks)

QUESTION THREE

(a) Explain how the following financial transactions could be used in the management of trade receivables:

    (i) Invoice discounting. (2 marks)

    (ii) Factoring. (2 marks)

(b) Citing three reasons, summarise the importance of working capital management in corporate finance. (3 marks)

(c) Tidco Ltd. is considering extension of credit to a new group of customers. It is expected that the annual sales to this new customer group will be Sh.750,000. This group will on average pay their bills after 60 days. The bad debt losses are expected to be 9% of sales. The credit and allocation department expenses will increase by Sh.45,000 if credit is extended to this group. The company pays corporate tax at the rate of 30%, and its variable costs are 80% of sales. The risk to this group of customers requires a discount rate of 16%.

Required:
Determine whether Tidco Ltd. should extend credit to this group of customers. (4 marks)

(d) The data provided below relates to three firms' dividend payouts over the last six years. None of the companies has issued or cancelled any shares over the period.

	(Sh. "million")					
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Company A						
Shares issued:1.200 million						
Profit after tax	600	630	580	600	640	560
Dividends declared	240	252	232	240	256	264
Company B						
Shares issued: 2,000 million						
Profit after tax	1,200	1,300	1,580	1,800	1,240	1,460
Dividends declared	120	132	145	160	176	194
Company C						
Shares issued: 3.500 million						
Profit after tax	2,200	1,400	2,100	1,950	2,200	2,560
Dividends declared	200	0	100	0	200	560

Required:

(i) Using appropriate calculations, describe the dividend policy that each of the above three companies appears to be following. (6 marks)

(ii) Justify each of the policies identified in (d) (i) above to the shareholders of each of the respective companies. (3 marks)

(Total: 20 marks)

QUESTION FOUR

(a) (i) Explain four reasons for the Islamic prohibition of interest (riba). (4 marks)

    (ii) Describe three challenges faced by Islamic banking. (3 marks)

(b) Indept Ltd. has a debt/equity ratio of 20%. The equity beta is 1.30. The risk-free rate is 10% and a return of 16% is expected from the market portfolio. The corporate tax rate is 30%. Indept Ltd. proposes to undertake a project requiring an initial outlay of Sh.10 million, financed partly by equity and partly by debt. The project, a perpetuity, is thought to be able to support the borrowing of Sh.3 million at an annual interest rate of 12%, thus imposing interest charges of Sh.360,000. It is expected to generate pre-tax cash flows of Sh.2.3 million per year.

Required:
Using the adjusted present value (APV) approach, advise the management on whether this project is worthwhile. (6 marks)

(c)   Kenyamatt Ltd.'s financial statements extract for the year ended 31 December 2015 is presented below:

Kenyamatt Ltd.
Financial statements extract for the year ended 31 December 2015

	Sh."million"
Total revenue	590
Operating variable costs	210
Operating fixed costs	175
Operating income (EBIT)	205
Interest expense	82
Taxes	49
Net income	74

Earnings per share (EPS)	Sh.7.4
Dividends per share (DPS)	Sh.0.18

	Sh."million"
Total assets	975
Long-term debt	820
Total shareholders equity	97

Number of outstanding shares	10 million

Simon Nderitu, a corporate financial analyst is interested in analysing the extent to which the company is utilising leverage.

Required:
Compute the following leverage measures for Kenyamatt Ltd. for the year ended 31 December 2015:

(i)   Degree of operating leverage.   (2 marks)

(ii)   Degree of financial leverage.   (2 marks)

(iii)   Degree of total leverage.   (3 marks)

(Total: 20 marks)

QUESTION FIVE

(a)   Describe the following terms in relation to corporate restructuring:

(i)   Equity curve-out.   (1 mark)

(ii)   Spin-off.   (1 mark)

(iii)   Split-off.   (1 mark)

(iv)   Divestiture.   (1 mark)

(v)   Liquidation.   (1 mark)

(b)   Madeni Ltd. is considering various levels of debt. At present, it has no debt and has a total market value of Sh.15 million. By undertaking financial leverage, it believes that it can achieve a net corporate and personal tax advantage of 20% of the market value of the debt. However, the company is concerned with bankruptcy and agency costs as well as with lenders increasing their required interest rate if the firm borrows too much. The company believes that it can borrow up to Sh.5 million without incurring any of these additional costs. However, each additional Sh.5 million increment in borrowing is expected to result in these three costs being incurred. Moreover, these costs are expected to increase at an increasing rate with financial leverage.

The following table illustrates the present value cost of bankruptcy, agency cost and interest cost under various levels of debt:

Debt level Sh."million"	5	10	15	20	25	30
Present value cost of bankruptcy, agency and increased interest rates (Sh."million")	0	0.6	1.2	2	3.2	5

Required:
The optimal amount of debt for the company.   (4 marks)

(c) Microcam Ltd. operates a number of high definition cameras and is evaluating whether it is optimal to operate new cameras for two, three or four years before replacing them. The managers have estimated the investment outlay, annual after tax operating expenses and after tax salvage cash flows for each of the service lives. The cost of funds is 10%.

Service life (years)	Investment Sh.	Year 1 Sh.	Year 2 Sh.	Year 3 Sh.	Year 4 Sh.	Salvage Sh.
2	(40,000)	(12,000)	(15.000)			20,000
3	(40,000)	(12,000)	(15.000)	(20,000)		17,000
4	(40,000)	(12,000)	(15.000)	(20,000)	(25,000)	12,000

Required:
Compute the optimal service life for Microcam Ltd.'s high definition cameras. (6 marks)

(d) Kirimatt Ltd. has a debt to equity ratio of 40% and 60% respectively. The required rate of return on debt and equity is 7% and 12.5% respectively. The corporate tax rate is 30%. The firm is considering investing in a new project with perpetual stream of pre-tax cash flows of Sh.11.3 million per annum. The project has the same risk as the average project of the firm. The initial investment is Sh.125 million which is financed by 20% debt.

Required:
(i) Using adjusted weighted average cost of capital (AWACC) approach, compute the net present value (NPV) of the project. (4 marks)

(ii) Advise the management on the viability of the project. (1 mark)
(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	8772	8696	.8621	.8475	.8333	.8065	.7813	7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	5739	.5407
3	.9706	.9423	.9151	8890	.8638	.8396	.8163	.7938	7722	.7513	.7118	6750	.6575	.6407	.6086	.5787	.5245	.4768	4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	8444	.7142	6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	3066	.2083	.1420	.0972	.0668	0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001		
50	.6080	.3715	2281	.1407	.0872	.0543	.0339	0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001				
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001						

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1 - \dfrac{1}{(1+r)^t}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250