

# KASNEB

## CPA PART II SECTION 3

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### FINANCIAL MANAGEMENT

WEDNESDAY: 25 November 2015.

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) Highlight three financial instruments that are traded in money markets. (3 marks)
- (b) Explain the following theories in relation to valuation of financial assets:
- (i) Fundamental theory. (3 marks)
- (ii) Random walk theory. (3 marks)
- (c) Ngatata Limited has issued a 20-year bond with a nominal value of Sh.1,000 and a coupon annual rate of 9%. Coupon payments are made semi-annually in arrears. The yield to maturity of the bond is 12% per annum.

#### Required:

- (i) The value of the bond. (3 marks)
- (ii) The new value of the bond, if yield to maturity goes down to 8% per annum. (2 marks)
- (d) Rematex Limited's earnings have been growing at the rate of 18% per annum. This growth is expected to continue for 4 years, after which the growth rate will fall to 12% per annum for another 4 years.

Thereafter, the growth rate is expected to be 6% in perpetuity. The company's last dividend paid was Sh.2. The investors' required rate of return on the company's equity is 15%.

#### Required:

The intrinsic value of the share. (6 marks)  
**(Total: 20 marks)**

#### QUESTION TWO

- (a) Summarise four advantages of debentures over preference shares. (4 marks)
- (b) Wendy Limited has the following capital structure:
- |                   |     |
|-------------------|-----|
| Debt              | 35% |
| Equity            | 50% |
| Preference shares | 15% |

The management of the company has provided the data below:

Bond yield to maturity	9%
Corporate tax rate	30%
Growth rate of ordinary dividends	9%
Market price of one ordinary share	Sh.30
Dividend for one ordinary share	Sh.1.20
Market price of one preference share	Sh.100
Floating cost of one preference share	Sh.2.00
Dividend for one preference share	Sh.8.50

#### Required:

The company's weighted average cost of capital (WACC). (6 marks)

- (c) Cindy Ltd. currently gives credit terms of net 30 days. The company's average annual sales amount to Sh.120 million. The average collection period is 45 days. The management intends to increase the credit period to net 60 days. This plan is expected to increase sales by 15 per cent. After the change in credit terms, the average collection period is expected to be 75 days. Variable costs are 80% of sales. The company's required rate of return on receivables is 20%.

Corporate tax rate is 30%.

Assume a 360 days year.

**Required:**

Advise the management of Cindy Ltd. on whether to relax its credit terms. (6 marks)

- (d) The following data was extracted from the financial statements of Kapecha Limited as at 30 September 2015:

	Sh. "million"
10% preference shares (Sh.10 par value)	16
Ordinary shares (Sh.10 par value)	16
	32
Retained earnings	28
	60
15% debentures	48
	<u>108</u>

The company's net profit before interest was Sh.80 million. The company's dividend pay-out ratio was 50%. Corporate tax rate is 30%.

**Required:**

Dividend per share (DPS).

(4 marks)

(Total: 20 marks)

**QUESTION THREE**

- (a) The following information relates to Mongwe Limited for the year ended 31 October 2015:

Earnings yield	25%
Dividend for the year	10% of share nominal value
Nominal value per share	Sh.40
Market price per share	Sh.150

**Required:**

- (i) Earnings per share (EPS).

(2 marks)

- (ii) Dividend cover.

(2 marks)

- (iii) Price-earnings (P/E) ratio.

(2 marks)

- (b) The following details relate to a capital project in XYZ Limited:

Project cost	Sh.65,000,000
Annual cash flows (after tax)	Sh.21,000,000
Project economic life	5 years
Required rate of return	12%

**Required:**

Assess the suitability of the capital project using the following methods:

- (i) Internal rate of return (IRR).

(5 marks)

- (ii) Profitability index (PI).

(3 marks)

- (c) Nile group of hotels is considering the acquisition of Victoria hotel at a cost of Sh.200 million. The group of hotels' cost of capital is currently 16% due to its high gearing level. Victoria hotel has no debt.

As a result of this acquisition, the cost of capital for Nile group of hotels will drop to 12%. Total cash flows will also increase by Sh.25 million per annum in perpetuity.

**Required:**

- (i) Using the net present value (NPV) approach, advise the management of Nile group of hotels on the acquisition of Victoria hotel. (3 marks)
- (ii) If the acquisition was funded by borrowing so that there is no impact on gearing after acquisition and the cost of capital was not reduced, advise the management of Nile group of hotels whether to proceed with the acquisition of Victoria hotel. (3 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Fila Ltd. intends to raise finance as follows:

**Debenture:** Raise Sh.100 million through a debenture issue. Each debenture will have a face value of Sh.1,000 and will be issued at 2% floatation cost and a discount of Sh.60. The coupon rate will be 10% with a maturity period of 10 years.

**Equity:** The firm will raise Sh.100 million from ordinary shares. The current level of dividend is Sh.5 per share and this has been growing at 10% per annum. The current market price per share is Sh.40 and floatation cost will be 5% of the market price.

**Long term debt:** Raise Sh.20 million long-term debt at par with an interest rate of 10% per annum.

Corporate tax rate is 30%.

**Required:**

The marginal cost of capital (MCC) of Fila Ltd.

- (b) The following information was extracted from the financial statements of Tana Enterprises Ltd. for the year ended 31 December 2013 and 31 December 2014:

**Statement of financial position**

	2014 Sh."million"	2013 Sh."million"
<b>Assets:</b>		
Non-current assets	1,850	1,650
Depreciation	(350)	(225)
Net non-current assets	<u>1,500</u>	<u>1,425</u>
Intangible assets	150	150
<b>Current assets:</b>		
Inventory	330	230
Accounts receivable	220	170
Cash	<u>100</u>	<u>90</u>
Total current assets	<u>650</u>	<u>490</u>
Total assets	<u>2,300</u>	<u>2,065</u>
<b>Equity and liabilities:</b>		
Ordinary share capital (Sh.2 par value 100 million shares issued)	200	200
Additional paid in ordinary share capital	325	325
Retained earnings	<u>550</u>	<u>470</u>
Ordinary shareholders' equity	<u>1,075</u>	<u>995</u>
Preference share capital (10%, Sh.100 par value)	150	150
<b>Long-term liabilities:</b>		
Long-term debt	625	540
Deferred tax	<u>100</u>	<u>80</u>
Total long-term liabilities	<u>725</u>	<u>620</u>

	Sh. "million"	Sh. "million"
<b>Current liabilities:</b>		
Accounts payable	85	105
Accruals	65	85
Current portion of long-term debt	75	-
Short-term bank notes	<u>125</u>	<u>110</u>
Total current liabilities	<u>350</u>	<u>300</u>
Total equity and liabilities	<u>2,300</u>	<u>2,065</u>

**Statement of comprehensive income**

	2014 Sh. "million"	2013 Sh. "million"
Net sales	3,500	2,990
Cost of goods sold	2,135	1,823
Selling, general and administrative expenses	<u>1,107</u>	<u>974</u>
Operating profit	258	193
Net interest expense	<u>74</u>	<u>64</u>
Income from operations	184	129
Income taxes	<u>55</u>	<u>38</u>
Net income	129	91
Preference dividends	<u>15</u>	<u>15</u>
Net income available for ordinary shareholders	114	76
Dividends declared	40	30

Assume that a year has 365 days.

**Required:**

Compute and interpret the following ratios for the year ended 31 December 2014:

- Cash conversion cycle. (6 marks)
  - Equity turnover. (2 marks)
  - Fixed charge cover. (2 marks)
  - Return on capital. (2 marks)
- Total: 20 marks**

**QUESTION FIVE**

- Distinguish between "required rate of return" and "expected rate of return". (4 marks)
- Discuss three contracts that are made through Islamic financial instruments. (6 marks)
- Summarise six benefits of the integrated financial management information system (IFMIS). (6 marks)
- Makata Limited intends to invest its surplus funds in shares with the following return expectations:

Economic condition	Probability	Share returns
Boom	0.20	40%
Average	0.60	15%
Recession	0.20	-10%

**Required:**

Using the coefficient of variation, assess the risk level associated with the investment. (4 marks)

**(Total: 20 marks)**

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:

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

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	5.5168	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