CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 22 May 2019.   **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)   Explain the following dividend theories:

        (i)   Information signalling theory.   (2 marks)

        (ii)   Tax differential theory.   (2 marks)

        (iii)   Bird-in-hand theory.   (2 marks)

        (iv)   Agency theory.   (2 marks)

(b)   Clare Mwatata is planning to invest in a long-term project. An investment banker has provided her with the following two investment options:

Option 1:   To invest in a corporate bond selling at Sh.875. The bond would be redeemed after 5 years at Sh.1,600.

Option 2:   To invest in a 16% debenture with a face value of Sh.100 quoted at Sh.95. The debenture would be redeemed after 5 years.

The minimum required rate of return is 18%.

Required:
Using the yield to maturity (YTM) valuation model, advise Clare Mwatata in making the investment decision.
                                                                                               (6 marks)

(c)   An investor holds 1,000 ordinary shares in Upendo Ltd., a company quoted at the securities exchange. The company has been paying average dividends of Sh.1.50 per share annually in recent years.

The firm's dividends are expected to grow at a rate of 10% per annum in the coming three years, then grow at a rate of 8% per annum over the next two years and thereafter grow at a constant rate of 5% per annum into perpetuity.

The minimum required rate of return is 12%.

Required:
Using the discounted cash flow valuation method, determine the current value of the 1,000 ordinary shares of Upendo Ltd.   (6 marks)
                                                                                       (Total: 20 marks)

QUESTION TWO
(a)   Propose four reasons that might make a firm use reserves to finance its operations.   (4 marks)

(b)   (i)   The management of Amani Limited is considering listing at the securities exchange and intends to undertake valuation of its shares.

        The following information is provided:
        1.   The current earnings per share (EPS) of the firm is Sh.4.
        2.   The firm has in issue 10 million ordinary shares with a 40% dividend payout ratio.
        3.   The firm has an equity capital of Sh.200 million with a minimum required rate of return of 18%.

        Required:
        The current theoretical value of the firm's ordinary shares using dividend growth model.   (6 marks)

(ii)   XYZ Ltd. has a net tangible assets worth Sh.48 million and a return on assets (ROA) of 12%.

The company expects to receive a profit of Sh.10 million annually for the next 5 years.

The company has 2 million outstanding ordinary shares.

Required:
The theoretical value per share using the super-profit model.   (4 marks)

(c)   In an effort to lower its accounts receivable balances, Chizingo Manufacturing Limited is considering to switch from its existing no discount policy to a 2% cash discount for payment done by 15th day after sale.

It is estimated that 60% of the customers would take the discount and the average collection period is expected to decline from 60 days to 45 days.

The company's management projects an increase of 20,000 units in annual sales to 220,000 units at the existing price of Sh.2,500 per unit.

Additional information:
1.   The variable cost per unit is Sh.2,100 and the average cost per unit is Sh.2,300.
2.   The company requires a 15% return on investment (ROI).
3.   The corporate tax rate is 30%.
4.   All sales are on credit basis.
        Assume 365 days in a year.

Required:
Advise the management of Chizingo Manufacturing Limited on whether to offer the cash discount to customers.
                                                                                            (6 marks)
                                                                                    (Total: 20 marks)

QUESTION THREE
(a)   The capital structure of Maweni Limited is given as follows:

	Sh. "000"
Ordinary share capital (Sh.20 par value)	50,000
Retained earnings	30,000
12% irredeemable debenture capital (Sh.20 par value)	25,000
14% preference share capital (Sh.25 par value)	15,000
	120,000

Additional information:
1.   The current market price of the firm's ordinary shares is quoted at Sh.45 cum-dividend.
2.   The firm paid a dividend of Sh.5 per share in the just ended year.
3.   The firm adopts a 60% dividend payout ratio.
4.   The firm's return on equity (ROE) is 20%.
5.   The existing 12% irredeemable debenture is currently trading at Sh.112 cum-interest.
6.   The 14% preference shares are currently trading at Sh.33.50 cum-dividend at the securities exchange.
7.   The corporate tax rate applicable is 30%.

Required:
(i)   The cost of ordinary share capital.   (3 marks)

(ii)   The cost of 12% irredeemable debenture capital.   (2 marks)

(iii)   The cost of 14% irredeemable preference share capital.   (2 marks)

(iv)   The firm's weighted average cost of capital (WACC).   (5 marks)

(b)   The following is a summary of financial data for Hakika Ltd. for the financial year ended 31 December 2017 and 31 December 2018:

	2018 Sh."000"	2017 Sh."000"
Income statement:		
Earnings before interest and tax (EBIT)	29,498	27,012
Interest	(3,106)	(3,726)
Tax	(8,694)	(7,452)
Earnings after interest and tax (EAIT)	17,698	15,834
Dividend payable	9,600	6,200

	Sh."000"	Sh."000"
Statement of financial position:		
Shareholders' funds	79,800	70,174
Long-term debt	28,000	35,000
	107,800	105,174

Additional information:

		2018	2017
1.	The number of outstanding shares ("000")	28,000	28,000
2.	Price-earnings (P/E) ratio : Hakika Ltd.	14.00	13.00
	Industry	15.20	15.00

Required:
Calculate the following ratios for years 2017 and 2018:

(i)   Return on capital employed (ROCE).   (2 marks)

(ii)   Interest coverage ratio.   (2 marks)

(iii)   Earnings per Share (EPS).   (2 marks)

(iv)   Dividend yield.   (2 marks)

(Total: 20 marks)

QUESTION FOUR

(a)   Credit card finance has become popular in the recent past compared to usage of cash to effect commercial transactions.

Required:
With reference to the above statement;

(i)   Highlight four reasons behind the fast growth of credit card finance in your country.   (4 marks)

(ii)   Evaluate four limitations of using credit cards as a source of finance.   (4 marks)

(b)   Juhudi Industries intends to replace an existing machine with a new one which is more efficient. The existing machine was acquired 2 years ago at a cost of Sh.4 million. The useful life of this machine was originally expected to be 5 years with no salvage value. However, the valuer has now estimated that the machine shall have an economic useful life of 10 more years and a salvage value of Sh.500,000.

The new machine is estimated to cost Sh. 8 million. An additional installation cost of Sh.400,000 shall be incurred. The new machine has a useful economic life of 10 years. The financial analyst of the company estimates that the existing machine could be sold for Sh.2.5 million at the current prevailing market price.

The new machine is expected to increase sales whereby debtors would increase by Sh.320,000, inventory by Sh.140,000 while creditors would increase by Sh.300,000.
The profit before depreciation and tax over the next 10 years for the two machines is given as follows:

Year	New machine Sh."000"	Existing machine Sh."000"
1	350	280
2	400	300
3	420	320
4	410	340
5	410	340
6	380	320
7	380	310
8	350	280
9	300	260
10	280	240

Additional information:
1.   The company's required cost of capital is 10%.
2.   Corporate tax rate is at 30%.
3.   The company uses a straight-line method of depreciation.

Required:
Using the net present value (NPV) method, advise the management of Juhudi Industries on whether to replace the existing machine with the new one.   (12 marks)

(Total: 20 marks)

QUESTION FIVE

(a)   Summarise four main features of Islamic insurance mortgage (takaful).   (4 marks)

(b)   The capital structure of Karakara Limited which is considered optimal is given as follows:

	Sh. "000"
Ordinary share capital (Sh.10 par value)	90,000
Retained earnings	75,000
15% preference share capital (Sh.100 par value)	45,000
16% debenture capital	90,000
	300,000

The company has total assets amounting to Sh. 360 million but it is expected the assets will rise to Sh.500 million by the end of the current financial year.

Additional information:

1.   New equity shares sold will net 90% after floatation costs.
2.   The current market price per share (MPS) of the ordinary shares is Sh.25.
3.   New ordinary shares will be issued at the current market price subject to a floatation cost of 10% of the issue price.
4.   New 16% debentures can be issued at par through the securities exchange.
5.   The past and expected earnings growth rate is 10%. Dividend growth rate is expected to be matched with the earnings growth rate.
6.   The current earnings yield is 24%.
7.   The company adopts a constant dividend payout ratio of 50%.
8.   New 15% preference shares can be issued at the current selling price of Sh.120 each.
9.   The retained earnings available for investment purposes is Sh.29,700,000.
10. The corporate tax rate is 30%.

Required:
The number of ordinary shares that must be sold in order to raise the required equity capital.   (6 marks)

(c)   (i)   Explain the term "abandonment" as used in capital budgeting decisions.   (2 marks)

(ii) Palakumi Agribusiness Ltd. is analysing a youth empowerment project. The following information is provided:

Year	Cash flow (Sh. "million")	Abandonment value (Sh. "million")
0	(16)	-
1	8	12
2	6	8
3	5	6
4	4	-

The company's cost of capital is 10%.

Required:
Advise the management of Palakumi Agribusiness Ltd. on the optimal time to abandon the project.   (5 marks)

(d)   Bidii Enterprises is a small medium enterprise (SME) in floriculture industry. The company intends to invest Sh.300,000 in a project that has a useful economic life of 4 years.

The following are the expected cash flows:

Year	1	2	3	4
Cash flows (Sh.)	140,000	120,000	80,000	60,000

The company's required rate of return is 14%.

Required:
The modified internal rate of return (MIRR) of the project.   (3 marks)

(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:

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

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