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CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 28 November 2018.   **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)   Examine four assumptions of the Modigliani and Miller (MM) dividend irrelevance Theory.   (4 marks)

(b)   Differentiate between the following terms as applied in finance:

     (i)   "Operating leverage" and "financial leverage".   (2 marks)

     (ii)   "Cum-right" and "ex-right" market price per share.   (2 marks)

     (iii)   "Time value of money" and "time preference for money".   (2 marks)

(c)   The fixed operating cost for Gahaleni Pharmaceutical Ltd. are Sh.5.8 million per annum and the variable cost ratio is 0.20.

    Additional information:
    1.   The company has Sh.2 million in bonds outstanding with an annual coupon interest rate of 8 per cent.
    2.   The company has 30,000 preference shares outstanding which pay Sh.2 dividend per share each year.
    3.   The company has 100,000 ordinary shares outstanding.
    4.   Revenues of the company are Sh.8 million per annum.
    5.   The company is in the 30% corporate tax bracket.

    Required:
    (i)   The degree of operating leverage.   (4 marks)

    (ii)   The degree of financial leverage.   (3 marks)

    (iii)   The degree of combined leverage.   (3 marks)
                                                         (Total: 20 marks)

QUESTION TWO

(a)   Describe four limitations of the net present value (NPV) method of investment appraisal.   (4 marks)

(b)   The management of Bundacho Limited is in the process of evaluating two projects, namely Alpha and Beta.

    The estimated pre-tax cash flows of each of the projects are as follows:

Year	Project Alpha Pre-tax cash flows Sh. "000"	Project Beta Pre-tax cash flows Sh. "000"
1	2,590	4,300
2	2,880	3,290
3	3,050	3,200
4	2,950	3,700
5	-	4,850
6	-	4,420

Additional information:
1. Project Alpha costs Sh.3.8 million and has an estimated lifespan of 4 years.
2. Project Beta costs Sh.8 million with an estimated lifespan of 6 years.
3. Both projects have a zero salvage value.
4. An investment in working capital of Sh.825,000 will be required irrespective of the project to be undertaken.
5. The cost of capital for the company is 12%.
6. The corporate tax rate is 30%.

Required:
Using the discounted payback period method, recommend to the management of Bundacho Limited on which project to undertake. (8 marks)

(c) The earnings per share (EPS) and dividend per share (DPS) data for Maraba Ltd. over the last five years are provided below:

Year	Dividend per share (DPS) (Sh.)	Earnings per share (EPS) (Sh.)
2013	1.00	2.50
2014	1.10	2.70
2015	1.20	3.00
2016	1.50	3.20
2017	1.80	3.50

Additional information:
1. A prospective investor is considering buying the shares of this company which are currently selling at Sh.55 each at the securities exchange.
2. The investor's required rate of return is 20%.

Required:
Advise the investor on whether to buy the shares of Maraba Ltd. using Gordon's model. (8 marks)

(Total: 20 marks)

QUESTION THREE
(a) Propose four factors that might lead to soft capital rationing in a limited company. (4 marks)

(b) Explain four roles that are played by insurance companies in the financial market of your country. (4 marks)

(c) Bemunyonge Ltd. has just paid a dividend of Sh.4 per share. The company expects that the dividend will grow at the rate of 20% per annum for the first two years, then grow at the rate of 10% per annum for the next 2 years and thereafter grow at the rate of 6% per annum into perpetuity. The required rate of return for the company is 16%.

Required:
The theoretical value of the company's share. (4 marks)

(d) Bahati Enterprises is considering amendments to its current credit policy. The firm's current annual credit sales amount to Sh.6,000,000.
The current credit terms are net 30 with an average debtors collection period of 45 days.

The following information relates to the proposed credit policy:

1. The credit period to be extended to net 60.
2. Annual sales are expected to increase by 20%.
3. Bad debts are expected to increase from 2% to 2.5% of the annual credit sales.
4. Credit analysis and debt collection costs are expected to increase by Sh.84,000 per annum.
5. The return on investment in debtors is 12%.
6. For every Sh.100 of sales, Sh.75 is the variable cost.
7. Assume one year has 360 days.

Required:
Advise the management of Bahati Enterprises on whether to adopt the proposed credit policy. (8 marks)

(Total: 20 marks)

QUESTION FOUR

(a)   The following are the financial statements for ABC Ltd. and XYZ Ltd. for the year ended 30 September 2018:

Income statement for the year ended 30 September 2018:

		ABC Ltd. Sh. "million"		XYZ Ltd. Sh. "million"
Revenues		4,000		6,000
Cost of sales		(3,000)		(4,800)
Gross profit		1,000		1,200
Expenses:				
Distribution costs	200		150	
Administration expenses	290		250	
Finance costs	10	(500)	400	(800)
Profit before tax		500		400
Tax paid		(120)		(90)
Profit after tax		380		310
Dividends paid		(150)		(100)
Retained profits for the year		230		210
Retained profit brought forward		220		2,480
Retained profit carried forward		450		2,690

Statement of financial position as at 30 September 2018:

		ABC Ltd. Sh. "million"		XYZ Ltd. Sh. "million"
Non-current assets:				
Land and buildings		1,200		5,000
Furniture and motor vehicles		600		1,000
		1,800		6,000
Current assets:				
Inventories	400		800	
Trade receivables	850		750	
Financial assets	100		230	
Cash at bank	-	1,350	100	1,880
		3,150		7,880
Financed by:				
Equity and liabilities:				
Ordinary share capital		1,000		1,600
Retained profits		450		2,690
		1,450		4,290
Non-current liabilities:				
Bank loan		500		3,000
Current liabilities:				
Trade payables	1,080		590	
Bank overdraft	120	1,200	-	590
		3,150		7,880

Required:

(i)   Vertical common size statements of income for the year ended 30 September 2018.   (6 marks)

(ii)   Vertical common size statements of financial position as at 30 September 2018.   (6 marks)

(b)   NewWays Ltd. intends to raise new capital to expand its production level.

The company plans to undertake the following financial decisions:

1.   Issue 200,000 ordinary shares which have a par value of Sh.10 at Sh.16 per share. The floatation cost per share is Sh.1.

2. Issue 75,000, 12% preference shares which have a par value of Sh.20 at Sh.18 per share. The total floatation cost is Sh.150,000.
3. Issue 50,000, 18% debentures which have a par value of Sh.100 at Sh.80 per debenture.
4. Borrow Sh.5,000,000, 18% long-term loan. The total floatation cost is Sh.200,000.

Additional information:
1. The company paid 28% ordinary dividends which is expected to grow at the rate of 4% per annum.
2. The corporate tax rate is 30%.

Required:
(i) The total capital to be raised net of floatation costs. (2 marks)

(ii) The weighted marginal cost of capital (WMCC) for the company. (6 marks)
(Total: 20 marks)

QUESTION FIVE

(a) Highlight four circumstances under which investors might find it suitable to use an Islamic equity fund. (4 marks)

(b) William Mgunya intends to invest Sh.200,000 in a redeemable 12%, Sh.100 debentures for 3 years. The current market value of the debentures is Sh.80 per debenture.

The required rate of return on the debentures is 10% per annum.

Required:
Advise William Mgunya on whether to invest in the debentures. (4 marks)

(c) Daima Investment Bank has provided the following information relating to two of its securities namely; A and B:

State of economy	Probability (P_i)	Security returns (%)	
		A	B
Stable	0.30	13	6
Expansion	0.40	15	7.5
Recession	0.30	10	5

Required:
(i) The expected return for each security. (2 marks)

(ii) The standard deviation for each security. (2 marks)

(iii) The correlation coefficient between the two securities' returns. (3 marks)

(iv) Determine the expected return of a portfolio constituting 60% of Security A and 40% of Security B. (2 marks)

(v) Compute the risk of the portfolio in (c) (iv) above. (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	.5674	.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