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CPA PART II SECTION 3

CS PART II SECTION 3

CCP PART II SECTION 3

FINANCIAL MANAGEMENT

WEDNESDAY: 23 May 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)　Explain three working capital financing policies and their implications in an organisation.　(6 marks)

(b)　Chauringo Limited wishes to expand its business. The company is considering to issue Sh.50 million worth of redeemable bonds denominated in Sh.1,000. The bond's rate of interest is 10% and will mature on 30 June 2028.
The bonds will be issued on 1 July 2018.
The cost of capital is 18% per annum for the whole period.

Required:
(i)　The current value of the bond.　(3 marks)

(ii)　The par value of the bond.　(2 marks)

(c)　Maandani Enterprises maintains a minimum cash balance of Sh.10,000. The standard deviation of the daily cash flows is Sh. 2,500. The transaction cost of each marketable security is Sh.20.
The interest rate of a marketable security is 9.2% per annum.
Assume 365 days in a year.

Required:
Using the Miller-Orr model of cash management, determine:

(i)　The optimal cash balance.　(3 marks)

(ii)　The upper cash limit.　(2 marks)

(iii)　The average cash balance.　(2 marks)

(iv)　The spread.　(2 marks)
(Total: 20 marks)

QUESTION TWO

(a)　Explain three assumptions of the Gordon's dividend model.　(6 marks)

(b)　Kubusa Ltd. is contemplating the acquisition of a new machine to replace the one currently being used in production process. The existing machine was acquired 2 years ago at a cost of Sh.8 million. The existing machine was estimated to have a useful life of 5 years with no salvage value. However, a critical analysis of the machine now shows that the machine is usable for the next 5 years with a salvage value of Sh.1.5 million. The existing machine can be disposed of now at Sh.4 million.

The new machine is expected to cost Sh.12.56 million with a salvage value of Sh.4 million at the end of its useful life of 5 years. The new machine will also require an additional investment in working capital of Sh.2.6 million at the start of its useful life which will however be recovered at the end of its useful life.

The following information relates to the estimated earnings before depreciation and tax (EBDT) over the coming five year period for the two machines:

Year	New machine (Sh. "000")	Existing machine (Sh. "000")
1	5,400	3,200
2	5,400	2,800
3	5,400	3,000
4	5,400	2,400
5	5,400	2,000

Kubusa Ltd.'s cost of capital is 13%. The company applies straight-line method of depreciation.

The corporate tax rate is 30%.

Required:
Using the net present value (NPV) technique, advise the management of Kubusa Ltd. on whether to replace the existing machine with the new machine. (14 marks)

(Total: 20 marks)

QUESTION THREE

(a)   Argue three cases for and three cases against the use of market values for various components of cost of capital in determining the weighted average cost of capital (WACC) of a firm. (6 marks)

(b)   Akiba Limited has the following capital structure:

	Sh. "000"
3,000,000 fully paid ordinary shares	30,000
Retained earnings	20,000
1,000,000 10% preference shares	20,000
6% debentures (Sh.150 par value)	30,000

Additional information:
1.   The current market price per share (MPS) is Sh.30.
2.   The expected dividend per share in the following year is Sh.1.20.
3.   The average growth rate in both earnings and dividends has been maintained at 10% over the last 10 years. The trend is expected to remain the same into the foreseable future.
4.   The debentures are trading at Sh.110 at the securities market.
5.   The debentures mature in 100 years period.
6.   The preference shares were issued 4 years ago and they are still trading at face value.
7.   The corporate tax rate is 30%.

Required:
Weighted average cost of capital (WACC) for the company. (8 marks)

(c)   The profit after tax of Muhendato Ltd. as at 30 April 2017 was Sh.6,500,000. The company is quoted at the securities exchange and its shares are currently selling for Sh.40 each.
The company's dividend policy is to pay out 40% of its earnings for the year as dividends on its 1,000,000 issued and fully paid up shares.
The company's profit after tax is expected to increase by 15% per year for three years and 8% per year thereafter.
Dividends will grow at the same rate as profits of the company.
The shares of the company are expected to sell at Sh.64 per share at the end of five years from now.
The cost of capital for the company is 12% per annum.

Required:
Determine whether the shares of Muhendato Ltd. are currently fairly valued, undervalued or overvalued for an investor expecting to sell them after 5 years. (6 marks)

(Total: 20 marks)

QUESTION FOUR

(a)   Explain the following terms as used in Islamic finance:

      (i)   Ijara.   (2 marks)

      (ii)   Sukuk.   (2 marks)

(b)   Distinguish between the terms "capital market" and "money market".   (2 marks)

(c)   (i)   Describe two types of capital rationing in capital budgeting.   (4 marks)

      (ii)   Amani Contractors Ltd. is intending to invest in four independent projects. The following information relates to the four projects:

Project	A	B	C	D
Present values of cash inflows (Sh. "million")	50	60	100	70
Initial outlay (Sh. "million")	(30)	(45)	(60)	(40)
Net present values (Sh. "million")	20	15	40	30

Additional information:
1.   The company has a capital limitation of Sh.90 million.
2.   The company's required rate of return is 10%.
3.   Any surplus funds can be re-invested to generate a return of net cash flow of 14% in perpetuity.
4.   The projects are indivisible.
5.   The projects can be combined to achieve a higher return subject to the company's capital limitation.

Required:
Advise on the optimal project combination.   (5 marks)

(d)   Maua Ltd. is in the process of completing construction of a green house.
The finance manager has estimated that the project's useful life is 15 years and shall generate the following cash flows:

Years	Cash flows (Sh. "000")
1 - 5	5,000
6 - 10	9,000
11 - 15	4,000
	18,000

The required rate of return for the company is 10%.

Required:
The total present value of the project.   (5 marks)

(Total: 20 marks)

QUESTION FIVE

(a)   Distinguish between "financial planning" and "financial forecasting".   (2 marks)

(b)   Explain four benefits that might accrue from demutualisation of securities exchange of your country.   (4 marks)

(c)   Furunzi Express Ltd.'s records got lost in a fire that burnt down the accounts office.

The following information was however obtained from the laptop of the accountant for the year ended 31 December 2017:

Opening stock	Sh.450,000
Stock turnover ratio	10 times
Net profit margin	15%
Gross profit margin	20%
Current ratio	4:1
Long-term loan	Sh.1,000,000
Depreciation of fixed assets (10%)	Sh.100,000
Closing stock	Sh.510,000

Additional information:

1. Credit period allowed by suppliers is one month.
2. Average debt collection period is 2 months.
3. On 31 December 2017, current assets consisted of stock, debtors and cash only.
4. There was no bank overdraft.
5. All purchases are made on credit.
6. Cash sales were ¼ of total sales.

Required:

(i)   Cost of sales.   (2 marks)

(ii)   Gross profit.   (2 marks)

(iii) Total sales.   (2 marks)

(iv)   Total purchases.   (2 marks)

(v)   Net profit.   (2 marks)

(vi)   Debtors value.   (2 marks)

(vii) Creditors value.   (2 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