

Semester: Jan 24-Apr 24

Maximum Marks: 50 Examination: ESE Examination Date: 27/03/2024  
Duration: 10:30 PM to 01:30 PM

Programme code: 06	Class: FY	Semester/Trimester: III
Programme: MBA HCM		
College: K. J. Somaiya Institute of Management	Name of the department/Section/Center: Finance and Law	
Course Code: 117P06C302	Name of the Course: Financial Management	
<b>Instructions:</b> <ul style="list-style-type: none"> <li>➤ Question Number 1 is compulsory. Attempt any 4 of the remaining questions.</li> <li>➤ All subparts of the question must be solved together.</li> <li>➤ All workings must form part of the solution.</li> <li>➤ Make suitable assumptions wherever necessary.</li> </ul>		

Question No.		Max. Marks																																	
1	<p>The information below is taken from the records of two companies, A and B, in the same industry.</p> <table border="1"> <thead> <tr> <th>Particulars</th> <th>A Ltd</th> <th>B Ltd</th> </tr> </thead> <tbody> <tr> <td>Plant and machinery</td> <td>22,00,000</td> <td>19,00,000</td> </tr> <tr> <td>Inventories</td> <td>14,80,000</td> <td>10,35,000</td> </tr> <tr> <td>Receivables</td> <td>4,50,000</td> <td>4,50,000</td> </tr> <tr> <td>Cash</td> <td>80,000</td> <td>20,000</td> </tr> <tr> <td><b>Total Assets</b></td> <td><b>42,10,000</b></td> <td><b>34,05,000</b></td> </tr> <tr> <td>Equity Share Capital (face value Rs.10 each)</td> <td>20,00,000</td> <td>5,00,000</td> </tr> <tr> <td>Retained earnings</td> <td>11,80,000</td> <td>4,85,000</td> </tr> <tr> <td>Debentures</td> <td>800,000</td> <td>19,00,000</td> </tr> <tr> <td>Trade creditors</td> <td>2,30,000</td> <td>5,20,000</td> </tr> <tr> <td><b>Total Liabilities</b></td> <td><b>42,10,000</b></td> <td><b>34,05,000</b></td> </tr> </tbody> </table>	Particulars	A Ltd	B Ltd	Plant and machinery	22,00,000	19,00,000	Inventories	14,80,000	10,35,000	Receivables	4,50,000	4,50,000	Cash	80,000	20,000	<b>Total Assets</b>	<b>42,10,000</b>	<b>34,05,000</b>	Equity Share Capital (face value Rs.10 each)	20,00,000	5,00,000	Retained earnings	11,80,000	4,85,000	Debentures	800,000	19,00,000	Trade creditors	2,30,000	5,20,000	<b>Total Liabilities</b>	<b>42,10,000</b>	<b>34,05,000</b>	10
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	<p>Credit sales amount to 80% of total sales for A Ltd and 90% of total sales for B Ltd. Calculate the relevant ratios to evaluate the performance of the two companies on parameters such as profitability, liquidity, solvency, efficiency, and valuation from the shareholders' perspective. The market price of equity shares for A Ltd and B Ltd is Rs.26 and Rs.311 respectively.</p>																						
2	<p>A company is considering an investment in a new project to manufacture plastic bottles at a cost of Rs.60 lakh, which comprises investment in machinery of Rs.40 lakh and working capital of Rs.20 lakh. The project will be for 5 years, and annual sales are expected to be 50,000 bottles in the first year, 55,000 bottles in the second and third years and 60,000 bottles in the third and fourth years. The selling price and variable cost per bottle are expected to be constant at Rs.100 and Rs.60 respectively. Annual fixed costs for the project (excluding depreciation) are estimated at Rs.1,80,000. Assume the company follows straight line method of depreciation over the life of the asset. The machinery has a life of 5 years and no salvage value. Working capital is recovered in full at the end of the project. The tax rate is 35 per cent. Assuming a cost of capital of 15%, find out whether it is worth undertaking the project based on its Net Present Value.</p>	10																					
3	<p>A company has on its books the following amounts of each type of capital. The current price of equity shares is Rs.50. Dividend expected at the end of next year is Rs.5 and the dividends are expected to grow at 6% per year. Debentures mature after 5 years and will be redeemed at face value of Rs.100. The current market price of debentures is Rs.80. Corporate tax rate is 35%. Determine the weighted average cost of capital using book value weights.</p> <table border="1" data-bbox="288 1563 1098 1809"> <thead> <tr> <th data-bbox="288 1563 900 1630">Source of financing</th> <th data-bbox="900 1563 1098 1630">Book value</th> </tr> </thead> <tbody> <tr> <td data-bbox="288 1630 900 1686">Equity share capital (face value Rs.10 each)</td> <td data-bbox="900 1630 1098 1686">10,00,000</td> </tr> <tr> <td data-bbox="288 1686 900 1742">Retained earnings</td> <td data-bbox="900 1686 1098 1742">20,00,000</td> </tr> <tr> <td data-bbox="288 1742 900 1809">11% Debentures (face value Rs.100 each)</td> <td data-bbox="900 1742 1098 1809">5,00,000</td> </tr> </tbody> </table>	Source of financing	Book value	Equity share capital (face value Rs.10 each)	10,00,000	Retained earnings	20,00,000	11% Debentures (face value Rs.100 each)	5,00,000	10													
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4	<p>ABC Ltd is examining the question of relaxing its credit policy. It sells at present 25,000 units at a price of Rs. 100 per unit, the variable cost per unit is Rs. 80 and the average cost per unit at the current sales volume is Rs. 90. All the sales are on credit, the average collection period being 30 days. Collec -</p>	10																					

	<p>tion cost is Rs. 10,000 and bad debts are 1% of sales. A relaxed credit policy is expected to increase sales by 20 per cent and the average age of receivables to 60 days. Collection cost will increase to Rs. 30,000 and bad debt will be 2% of sales. Assuming a 15 percent return, should the firm relax its credit policy? Assume 360 days in a year for calculation purposes.</p>	
<p><b>5 (a)</b></p> <p><b>5 (b)</b></p>	<p>Mr. Joshi is about to retire at the age of 60. His employer has offered him 2 post-retirement options: (a) Rs.50 lakh lumpsum and (b) Rs.600,000 p.a. for 10 years. Assuming 10% interest, which option is better?</p> <p>An investor deposits Rs.50,000 in a bank account for 5 years at 8% p.a. Find out the amount he will have if interest is compounded (a) annually (b) semi-annually and (c) quarterly.</p>	<p><b>5</b></p> <p><b>5</b></p>
<p><b>6</b></p>	<p>Attempt ANY TWO from the following:</p> <p>(i) Describe the three broad areas of financial decision making.</p> <p>(ii) Explain the various determinants of working capital.</p> <p>(iii) Describe the different techniques of capital budgeting with their advantages and disadvantages.</p>	<p><b>10</b></p>

TABLE A-3 The Present Value of One Rupee

Year	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	.990	.980	.971	.962	.952	.943	.935	.926	.917	.909
2	.980	.961	.943	.925	.907	.890	.873	.857	.842	.826
3	.971	.942	.915	.889	.864	.840	.816	.794	.772	.751
4	.961	.924	.888	.855	.823	.792	.763	.735	.708	.683
5	.951	.906	.863	.822	.784	.747	.713	.681	.650	.621
6	.942	.888	.837	.790	.746	.705	.666	.630	.596	.564
7	.933	.871	.813	.760	.711	.665	.623	.583	.547	.513
8	.923	.853	.789	.731	.677	.627	.582	.540	.502	.467
9	.914	.837	.766	.703	.645	.592	.544	.500	.460	.424
10	.905	.820	.744	.676	.614	.558	.508	.463	.422	.386
11	.896	.804	.722	.650	.585	.527	.475	.429	.388	.350
12	.887	.789	.701	.625	.557	.497	.444	.397	.356	.319
13	.879	.773	.681	.601	.530	.469	.415	.368	.326	.290
14	.870	.758	.661	.577	.505	.442	.388	.340	.299	.263
15	.861	.743	.642	.555	.481	.417	.362	.315	.275	.239
16	.853	.728	.623	.534	.458	.394	.339	.292	.252	.218
17	.844	.714	.605	.513	.436	.371	.317	.270	.231	.198
18	.836	.700	.587	.494	.416	.350	.296	.250	.212	.180
19	.828	.686	.570	.475	.396	.331	.277	.232	.194	.164
20	.820	.673	.554	.456	.377	.312	.258	.215	.178	.149
21	.811	.660	.538	.439	.359	.294	.242	.199	.164	.135
22	.803	.647	.522	.422	.342	.278	.226	.184	.150	.123
23	.795	.634	.507	.406	.326	.262	.211	.170	.138	.112
24	.788	.622	.492	.390	.310	.247	.197	.158	.126	.102
25	.780	.610	.478	.375	.295	.233	.184	.146	.116	.092
30	.742	.552	.412	.308	.231	.174	.131	.099	.075	.057
35	.706	.500	.355	.253	.181	.130	.094	.068	.049	.036
40	.672	.453	.307	.208	.142	.097	.067	.046	.032	.022
45	.639	.410	.264	.171	.111	.073	.048	.031	.021	.014
50	.606	.372	.228	.141	.087	.054	.034	.021	.013	.009

(Contd.)

TABLE A-3 The Present Value of One Rupee (Contd.)

Year	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%*
1	.901	.893	.885	.877	.870	.862	.855	.847	.840	.833
2	.812	.797	.783	.769	.756	.743	.731	.718	.706	.694
3	.731	.712	.693	.675	.658	.641	.624	.609	.593	.579
4	.659	.636	.613	.592	.572	.552	.534	.516	.499	.482
5	.593	.567	.543	.519	.497	.476	.456	.437	.419	.402
6	.535	.507	.480	.456	.432	.410	.390	.370	.352	.335
7	.482	.452	.425	.400	.376	.354	.333	.314	.296	.279
8	.434	.404	.376	.351	.327	.305	.285	.266	.249	.233
9	.391	.361	.333	.308	.284	.263	.243	.225	.209	.194
10	.352	.322	.295	.270	.247	.227	.208	.191	.176	.162
11	.317	.287	.261	.237	.215	.195	.178	.162	.148	.135
12	.286	.257	.231	.208	.187	.168	.152	.137	.124	.112
13	.258	.229	.204	.182	.163	.145	.130	.116	.104	.093
14	.232	.205	.181	.160	.141	.125	.111	.099	.088	.078
15	.209	.183	.160	.140	.123	.108	.095	.084	.074	.065
16	.188	.163	.141	.123	.107	.093	.081	.071	.062	.054
17	.170	.146	.125	.108	.093	.080	.069	.060	.052	.045
18	.153	.130	.111	.095	.081	.069	.059	.051	.044	.038
19	.138	.116	.098	.083	.070	.060	.051	.043	.037	.031
20	.124	.104	.087	.073	.061	.051	.043	.037	.031	.026
21	.112	.093	.077	.064	.053	.044	.037	.031	.026	.022
22	.101	.083	.068	.056	.046	.038	.032	.026	.022	.018
23	.091	.074	.060	.049	.040	.033	.027	.022	.018	.015
24	.082	.066	.053	.043	.035	.028	.023	.019	.015	.013
25	.074	.059	.047	.038	.030	.024	.020	.016	.013	.010
30	.044	.033	.026	.020	.015	.012	.009	.007	.005	.004
35	.026	.019	.014	.010	.008	.006	.004	.003	.002	.002
40	.015	.011	.008	.005	.004	.003	.002	.001	.001	.001
45	.009	.006	.004	.003	.002	.001	.001	.001	.000	.000
50	.005	.003	.002	.001	.001	.001	.000	.000	.000	.000

\*For present value at rates between 21% and 40%, refer to website. The address is: [www.mhhe.com/khan&jain5e](http://www.mhhe.com/khan&jain5e)

TABLE A-4 The Present Value of an Annuity of One Rupee

Year	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	.990	.980	.971	.962	.952	.943	.935	.926	.917	.909
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.326	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.746	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.560	8.061	7.606
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201
19	17.226	15.679	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.352	14.878	13.590	12.462	11.470	10.594	9.818	9.129	8.514
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.292	8.649
22	19.661	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.442	8.772
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.580	8.883
24	21.244	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.707	8.985
25	22.023	19.524	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077
30	25.808	22.397	19.601	17.292	15.373	13.765	12.409	11.258	10.274	9.427
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.644
40	32.835	27.356	23.115	19.793	17.159	15.046	12.332	11.925	10.757	9.779
45	36.095	29.490	24.519	20.720	17.774	15.456	13.606	12.108	10.881	9.863
50	39.197	31.424	25.730	21.482	18.256	15.762	13.801	12.234	10.962	9.915

(Contd.)

TABLE A-4 The Present Value of an Annuity of One Rupee (Contd.)

Year	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%*
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.850	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.487	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.303	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675
16	7.379	6.974	6.604	6.265	5.954	5.669	5.405	5.162	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
19	7.839	7.366	6.938	6.550	6.198	5.877	5.585	5.316	5.070	4.843
20	7.963	7.469	7.024	6.623	6.259	5.929	5.628	5.353	5.101	4.870
21	8.075	7.562	7.102	6.687	6.312	5.973	5.665	5.384	5.127	4.891
22	8.176	7.645	7.170	6.743	6.359	6.011	5.696	5.410	5.149	4.909
23	8.266	7.718	7.230	6.792	6.399	6.044	5.723	5.432	5.167	4.925
24	8.348	7.784	7.283	6.835	6.434	6.073	5.747	5.451	5.182	4.937
25	8.422	7.843	7.330	6.873	6.464	6.097	5.766	5.467	5.195	4.948
30	8.694	8.055	7.496	7.003	6.566	6.177	5.829	5.517	5.235	4.979
35	8.855	8.176	7.586	7.070	6.617	6.215	5.858	5.539	5.251	4.992
40	8.951	8.244	7.634	7.105	6.642	6.233	5.871	5.548	5.258	4.997
45	9.008	8.283	7.661	7.123	6.654	6.242	5.877	5.552	5.261	4.999
50	9.042	8.305	7.675	7.133	6.661	6.246	5.880	5.554	5.262	4.999

\*For present value of annuity at rates between 21% and 40%, refer to website. The address is: [www.mhhe.com/khan&jain5e](http://www.mhhe.com/khan&jain5e)