



**THE OPEN UNIVERSITY OF SRI LANKA
 MASTER OF BUSINESS ADMINISTRATION
 FINAL EXAMINATION
 AFPA310/ MSPA310/ MCP 2610 - CORPORATE FINANCE
 DURATION - 03 HOURS**

Date : 18.09.2022

Time : 09.30am – 12.30pm

Instructions: Answer ALL four (04) questions.

Numbering of the answers in your answer script should follow the numbers assigned to the questions in the paper. Illegible hand writing is liable to loose marks.

Question No. 01

- (a) What is meant by the term “Finance”? Explain. (02 Marks)
- (b) State four (04) major decisions involved in finance and explain them briefly. (08 Marks)
- (c) Discuss three (03) issues involved when using “profit maximization” as the objective of a business, and how the objective of “maximization of shareholders’ wealth” deals with these issues. (10 Marks)
- (d) What is meant by “the agency problem”? Explain with an example. (05 Marks)
- (Total Marks: 25)**

Question No. 02

- (a) State three (03) differences between debentures and equity shares. (06 Marks)
- (b) Explain why some debentures sell at a premium over par value while others sell at a discount. (04 Marks)
- (c) XY PLC issued Rs 100/- unsecured debentures on 1st January 2022 at a price of Rs 95/- each. The debentures matures in 5 years, and the coupon is paid annually at the rate 16 percent.
- (i) If the yield to maturity on these debentures is 20 percent per annum, determine the intrinsic value of a debenture on 1st January 2022. (06 Marks)
- (ii) As an investor, would you prefer to invest when the company issues these debentures? Justify your answer. (03 Marks)

- (d) AB PLC paid a dividend of Rs.6/- per share at the end of the last financial year for its equity shares. The company expects to increase the amount of dividend at the rate of 5% annually. If the investor's required rate of return is 15%, calculate the intrinsic price of the equity share today? (06 Marks)

(Total Marks: 25)

Question No. 03

- (a) Explain the relationship between risk and return of an investment (04 Marks)
- (b) Explain how measures of risk and return of an investment are useful to an investor. (03 Marks)
- (c) Discuss two (02) advantages of investing in a portfolio of different investments. (04 Marks)
- (d) The followings are the expected returns of the equity shares of PQ PLC and AB PLC with associated probabilities.

PQ PLC		AB PLC	
Rate of Return	Probability	Rate of Return	Probability
8%	0.3	9%	0.2
11%	0.3	16%	0.3
10%	0.2	10%	0.4
4%	0.2	6%	0.1

You are required to calculate;

- (i) expected return and standard deviation of the return for the equity shares of PQ PLC and AB PLC. (10 Marks)
- (ii) expected return and standard deviation of the return for the portfolio of the equity shares of PQ PLC and AB PLC, if 30% of your investment is in shares of PQ PLC while the balance is invested in shares of AB PLC. The correlation between the returns of the equity shares of PQ PLC and AB PLC is 0.86. (04 Marks)

$$\sigma_p^2 = w_1^2\sigma_1^2 + w_2^2\sigma_2^2 + 2w_1w_2\rho_{1,2}\sigma_1\sigma_2$$

(Total Marks: 25)

Question No. 04

- (a) Briefly explain the difference between call option and put option. (04 Marks)
- (b) Suppose you bought a three-month call share option for 5,000 shares of X PLC at the exercise price of Rs 65/-. The option premium is Rs 3/- per share.

You are required to;

- (i) calculate pay-off at expiration of your investment, if the shares of X PLC sells for Rs 72/- each on the expiration date.
- (ii) draw the pay-off diagram for the investment.

(06 Marks)

- (c) The following financial information relates to a company engaged in manufacturing and selling of kitchen appliances. During the last few years, it experienced a decline in sales revenue as a result of the COVID 19 pandemic and subsequent economic crisis in the country.

<i>(In Rs. '000)</i>	2020	2021	2022
Sales	274,400	254,530	243,220
Gross profit	96,040	71,350	80,200
Administrative expenses	15,600	18,300	20,560
Distribution expenses	23,480	20,726	25,830
Interest expense	12,695	10,130	11,734
Balances as at the year-end;			
Inventory	17,890	16,250	17,350
Trade receivables	18,420	18,135	19,174
Cash	5,385	4,271	3,218
Property, plant and equipment	341,562	311,358	459,438
Retained earnings	126,947	133,831	142,520
Stated capital – Equity shares	100,000	100,000	100,000
Long-term borrowings	146,568	103,825	133,427

Based on the above information, you are required to;

- (i) prepare an analysis of the company's efficiency of assets' utilization for the years 2021 and 2022. **(10 Marks)**
- (ii) discuss how the efficiency of assets' utilization analyzed in part (i) above impacts on the company's profitability and liquidity positions. **(05 Marks)**

(Total Marks: 25)

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Table A-1 Present Value of \$1 Due at the End of n Periods:

$$PV_{F_{n,i}} = \frac{1}{(1 + i)^n}$$

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	.8117	.7972	.7831	.7692	.7556	.7422	.7044	.6783	.6504	.6253
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7318	.7130	.6946	.6765	.6586	.6410	.5904	.5635	.5341	.5075
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6585	.6350	.6125	.5902	.5681	.5462	.4918	.4639	.4337	.4065
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5924	.5644	.5370	.5102	.4838	.4577	.4000	.3711	.3400	.3121
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5326	.5006	.4692	.4383	.4078	.3775	.3175	.2876	.2553	.2274
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4793	.4453	.4119	.3790	.3465	.3142	.2520	.2211	.1877	.1622
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5439	.5019	.4665	.4306	.3946	.3586	.3231	.2879	.2528	.1887	.1568	.1224	.1000
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3866	.3487	.3112	.2741	.2373	.2007	.1435	.1116	.0772	.0575
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3476	.3092	.2717	.2346	.1977	.1609	.1017	.0700	.0357	.0195
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.3126	.2746	.2371	.1996	.1621	.1247	.0635	.0317	.0000	.0000
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2817	.2446	.2076	.1705	.1334	.0963	.0331	.0013	.0000	.0000
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2522	.2146	.1771	.1396	.1021	.0646	.0000	.0000	.0000	.0000
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2264	.1895	.1526	.1157	.0788	.0419	.0000	.0000	.0000	.0000
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.2027	.1660	.1293	.0926	.0559	.0192	.0000	.0000	.0000	.0000
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1819	.1462	.1105	.0748	.0391	.0034	.0000	.0000	.0000	.0000
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2303	.1959	.1592	.1234	.0876	.0519	.0162	.0000	.0000	.0000	.0000	.0000
18	.8360	.7002	.5874	.4936	.4155	.3507	.2959	.2502	.2100	.1757	.1380	.1022	.0664	.0307	.0000	.0000	.0000	.0000	.0000	.0000
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1585	.1218	.0860	.0502	.0145	.0000	.0000	.0000	.0000	.0000	.0000
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1426	.1067	.0708	.0349	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21	.8114	.6598	.5375	.4388	.3589	.2942	.2415	.1987	.1637	.1287	.0926	.0568	.0209	.0000	.0000	.0000	.0000	.0000	.0000	.0000
22	.8034	.6468	.5219	.4220	.3418	.2775	.2257	.1839	.1502	.1152	.0786	.0430	.0071	.0000	.0000	.0000	.0000	.0000	.0000	.0000
23	.7954	.6342	.5067	.4057	.3256	.2618	.2109	.1703	.1378	.1017	.0659	.0301	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
24	.7876	.6217	.4919	.3901	.3101	.2470	.1971	.1577	.1264	.0905	.0546	.0187	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0801	.0442	.0083	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
26	.7720	.5976	.4637	.3604	.2812	.2198	.1722	.1352	.1064	.0705	.0346	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
27	.7644	.5859	.4502	.3468	.2678	.2074	.1609	.1232	.0976	.0617	.0258	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
28	.7568	.5744	.4371	.3335	.2551	.1956	.1504	.1129	.0895	.0536	.0177	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
29	.7493	.5631	.4243	.3207	.2429	.1846	.1406	.1073	.0822	.0463	.0104	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0395	.0036	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
35	.7059	.5000	.3554	.2534	.1813	.1301	.0937	.0676	.0490	.0356	.0189	.0102	.0075	.0055	.0030	.0017	.0005	.0002	.0001	.0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001	.0001	.0001
45	.6391	.4102	.2644	.1712	.1113	.0727	.0476	.0313	.0207	.0137	.0061	.0027	.0019	.0013	.0006	.0003	.0001	.0001	.0001	.0001
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	.0001	.0001	.0001	.0001
55	.5785	.3365	.1968	.1157	.0683	.0406	.0242	.0145	.0087	.0053	.0020	.0007	.0005	.0003	.0001	.0001	.0001	.0001	.0001	.0001

*The factor is zero to four decimal places.
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Table A-2 Present Value of an Annuity of \$1 per Period for n Periods:

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

Number of Periods	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	2.5520	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	6.2305	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2888	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	7.4352	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	5.9577	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5723	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	6.4255	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	8.5456	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	6.1916	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5905	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
21	18.8570	17.0112	15.4150	14.0292	12.8212	11.7641	10.8355	10.0168	9.2922	8.6487	7.5620	6.6870	6.3125	5.9731	5.3837	4.8913	4.1212	3.5514	3.1158
22	19.6604	17.6580	15.9369	14.4511	13.1630	12.0416	11.0612	10.2007	9.4424	8.7715	7.6446	6.7429	6.3587	6.0113	5.4099	4.9094	4.1300	3.5558	3.1180
23	20.4538	18.2922	16.4436	14.8568	13.4886	12.3034	11.2722	10.3711	9.5802	8.8832	7.7184	6.7921	6.3988	6.0442	5.4321	4.9245	4.1371	3.5592	3.1197
24	21.2484	18.9139	16.9355	15.2470	13.7986	12.5504	11.4693	10.5288	9.7066	8.9847	7.7843	6.8351	6.4338	6.0726	5.4509	4.9371	4.1428	3.5619	3.1210
25	22.0252	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
26	22.7952	20.1210	17.8768	15.9828	14.3752	13.0032	11.8258	10.8100	9.9290	9.1609	7.8957	6.9061	6.4906	6.1182	5.4804	4.9563	4.1511	3.5656	3.1227
27	23.5596	20.7069	18.3270	16.3296	14.6430	13.2105	11.9867	10.9352	10.0266	9.2372	7.9426	6.9352	6.5135	6.1364	5.4919	4.9636	4.1542	3.5669	3.1233
28	24.3164	21.2813	18.7641	16.6661	14.8981	13.4062	12.1371	11.0511	10.1161	9.3066	7.9844	6.9607	6.5335	6.1520	5.5016	4.9697	4.1566	3.5679	3.1237
29	25.0658	21.8444	19.1885	16.9837	15.1411	13.5907	12.2777	11.1584	10.1983	9.3696	8.0218	6.9830	6.5509	6.1656	5.5098	4.9747	4.1585	3.5687	3.1240
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
35	29.4086	24.9986	21.4872	18.6646	16.3742	14.4982	12.9477	11.6546	10.5568	9.6442	8.1755	7.0700	6.6166	6.2153	5.5386	4.9915	4.1644	3.5708	3.1248
40	32.8847	27.3555	23.1148	19.7928	17.1591	15.0465	13.3517	11.9546	10.7574	9.7791	8.2438	7.1050	6.6418	6.2395	5.5482	4.9966	4.1659	3.5712	3.1250
45	36.0945	29.4902	24.5187	20.7200	17.7741	15.4558	13.6055	12.1084	10.8812	9.8628	8.2825	7.1232	6.6543	6.2421	5.5523	4.9986	4.1664	3.5714	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
55	42.1472	33.1748	26.7744	22.1086	18.6335	15.9905	13.9599	12.3186	11.0140	9.9471	8.3170	7.1376	6.6636	6.2482	5.5549	4.9998	4.1666	3.5714	3.1250

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