



**THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF MANAGEMENT STUDIES
BACHELOR OF MANAGEMENT STUDIES HONOURS DEGREE PROGRAMME
LEVEL 4**

**CONTINUOUS ASSESSMENT TEST: 2023
AFU4508: MONEY AND CAPITAL MARKETS
DURATION: TWO (2) HOURS**

DATE: 12.02.2023

TIME: 1.30 PM – 3.30 PM

Instructions

- This paper consists of two parts: PART A and PART B.
- Answer all questions.
- Do not write any answer in the question paper. Write all answers in the answer booklet given.
- Non-programmable calculators are allowed.

PART A

Please write the number of the correct answer option in front of the relevant question number in the answer booklet given.

Example:

If the correct answer for the question number 01 is answer option ii, write as follows in the answer booklet given.

01 – ii

01. Financial Market is best defined as,

- i. Market place where securities are bought and sold and serves the purpose of transfer funds through financial intermediaries.
- ii. The complex network of institutions and securities which facilitate the transfer of funds between savers and borrowers.
- iii. Market place where securities are bought and sold and serves the purpose of allocating scarce funds from savers to borrowers.
- iv. The complex network of institutions and securities which facilitate the transfer of funds through financial intermediaries.

02. Which one out of below, is NOT a typical function of Financial Intermediaries?

- i. Risk Management
- ii. Project Evaluation
- iii. Monitoring financial institutions
- iv. Investing in assets

03. The main difference between a broker and a dealer is,

- i. Broker executes the trade themselves while dealer enabling the trading of securities for other individuals.
- ii. Broker enables the trading of securities for other individuals while dealer executes the trade themselves.
- iii. Dealer charges a fee based on a percentage of sales while broker makes a profit on the bid-ask spread.
- iv. Broker acts as a financial intermediary while a dealer acting as a facilitator.

04. Which of the following statement is TRUE regarding information Asymmetry?

- i. Information asymmetry often occurs due to both parties having same information compared to another party when making decisions and transactions.
- ii. Because of information asymmetry, lenders tend to have a hard time differentiating between good credit risks and bad credit risks.
- iii. Lenders end up with a loan portfolio comprising almost entirely of bad credit risks is known as Moral Hazards.
- iv. Due to adverse selection lenders will always prefer to lend money to deficit units rather than keeping their savings for themselves to earn a return.

05. Based on nature of the issue, financial market can be categorised into;

- i. Debt and Equity Market
- ii. Money and Capital Market
- iii. Primary and Secondary Market
- iv. SPOT and Futures Market

06. As of liquidity preference theory, aggregate real money demand has,

- i. a positive relationship with interest rates.
- ii. a negative relationship with interest rates.
- iii. no relationship with interest rates.
- iv. an inelastic relationship with interest rates.

07. Which of the following is NOT a criticism against liquidity preference theory?

- i. Assuming instrument prices and the rate of interest are inversely related to each other while the relationship being always positive.
- ii. Availability of other factors which influence the rate of interest by affecting the demand for and supply of investible funds.
- iii. The theory does not explain the existence of different rates of interest prevailing in the market at the same time.
- iv. It ignores saving or waiting as a means or source of investible fund.

08. A positively sloped yield curve would often indicate,

- i. Investors are rewarded for holding long term investments.
- ii. Investors are rewarded more for holding short term investments.
- iii. Investors are not rewarded for holding long term investments.
- iv. None of the above.

09. Expectation theory suggests that,

- i. all else being equal, investors generally prefer to buy short-term securities, while issuers prefer to sell long-term securities.
- ii. the market for debt is totally segmented based on maturity and that the supply of and demand for funds within each segment determine its prevailing interest rate.
- iii. if the interest rate of short-term and long-term risk-free securities is similar, the yield curve would be slightly upward sloping.
- iv. the yield curve reflects investor expectations about future interest rates.

10. Consider the below statements about Preferred Habitat Theory.

- a. When all else is equal investors prefer to hold short-term bonds in place of long-term bonds and that the yields on longer term bonds should be higher than shorter term bonds.
- b. Investors prefer one maturity length over another and are only willing to buy bonds outside of their maturity preference if a risk premium for the maturity range is available.
- c. Interest premiums are needed to tempt investors to move from their preferred maturities to other maturities.

Which of the above statement/s are TRUE regarding Preferred Habitat Theory?

- i. a only
- ii. b only
- iii. a and b
- iv. a, b and c

11. If a financial instrument is risk free, it implies,

- i. The maturity risk is zero.
- ii. The liquidity risk is zero.
- iii. The default risk is zero.
- iv. The financial asset does not subject to any risk.

12. Value of a financial asset implies,

- i. Risk and return of the asset.
- ii. Future value of expected cash flows discounted using the investor's required rate of return.
- iii. Present value of expected cash flows discounted using the investor's required rate of return.
- iv. Amount of expected cash flows regardless of the time value of money.

13. A perpetual bond will,

- i. not pay any coupon until the maturity.
- ii. have a specified maturity period.
- iii. pay the coupon semi-annually until the maturity.
- iv. pay the coupon indefinitely.

Answer question numbers 14, 15 and 16 based on the scenario below.

Assume ABC corporation issued a bond with a maturity of 15 years on 1st of January 2017. Coupon is paid semi-annually with a rate of 8%. The required rate of return is 12%. Face value is Rs. 1000

Assume today is 1st of January 2023.

14. Select the correct combination out of below relevant for an investor interested in purchasing the bond today.

- i. Coupon (C) = Rs.80, Number of coupons to maturity (n) = 15
- ii. Coupon (C) = Rs.40, Number of coupons to maturity (n) = 12
- iii. Coupon (C) = Rs.40, Number of coupons to maturity (n) = 18
- iv. Coupon (C) = Rs.40, Number of coupons to maturity (n) = 17

15. Identify the type of the above bond and the reason for your answer.

- i. Discount bond because face value is higher than the purchase price.
- ii. Discount bond because required rate of return is higher than the coupon rate.
- iii. Premium bond because required rate of return is higher than the coupon rate.
- iv. Premium bond because face value is higher than the purchase price.

16. Value of the above bond as of today is,

- i. Rs. 727.56
- ii. Rs. 1,506.37
- iii. Rs. 832.32
- iv. Rs. 783.44

17. The relationship between maturity and bond price is best explained as,

- i. When the required return is higher than the coupon interest rate and is constant until maturity, the value of the bond will eventually reduce to reach the par value with passage of time.
- ii. When the required return is lower than the coupon interest rate and is constant until maturity, the value of the bond will eventually reduce to reach the par value with passage of time.
- iii. When the required return is lower than the coupon interest rate and is constant until maturity, the value of the bond will eventually increase to reach the par value with passage of time.
- iv. When the required return equals the coupon interest rate, the value of the bond will increase with the passage of time.

18. The current yield of a Rs. 1000 face valued bond with a coupon rate of 6% and a purchase price of Rs. 965, assuming the required rate of return is 8% is,

- i. 8%
- ii. 6.22%
- iii. 1.03%
- iv. 8.29%

19. A perpetual bond pays a coupon rate of 7% and has a face value of Rs. 1,000. The required rate of return is 6%. The value of the bond is,

- i. Rs. 857.14
- ii. Rs. 1,009.43
- iii. Rs. 1,166.67
- iv. Rs. 1,066.04

20. Which of the following is FALSE regarding common stock,

- i. Common stock represents the ownership of a corporation.
- ii. Stockholders have a residual claim.
- iii. It is compulsory for listed entities to pay dividends on common stock.
- iv. Investing in common stock is riskier compared to that of corporate bonds of the same company.

(20×2 = 40 Marks)

PART B

01. Explain the economic functions of the financial system. Elaborate the answer with examples. (30 Marks)

02. Diamond PLC maintains a dividend pay-out ratio 60%. Assume that the dividend is expected to grow at a rate of 10% per annum over the next two years and then stabilize at a long-term growth rate of 6% per annum thereafter. The required rate of return is 13%. Current market price of the share is Rs. 75.00. The earnings per share for the last year of Diamond PLC is Rs. 8.00.

Assume Alex is considering to invest in Diamond PLC's common stock today and seeks your expertise on making the investment decision.

- I. Exhibit the timeline of the dividend payments for Alex. (10 marks)
- II. Calculate the dividend yield and the capital gain for the first year. (06 marks)
- III. Calculate the intrinsic/ fair value of Diamond PLC share. (08 marks)
- IV. Advise Alex whether to purchase the stock with justification. (06 marks)

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Table 1 - Present Value Interest Factors for One Dollar Discounted at k Percent for n Periods: $PVIF_{k,n} = 1 / (1 + k)^n$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.6944	0.6504	0.6400	0.5917
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.5787	0.5245	0.5120	0.4552
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823	0.4230	0.4096	0.3501
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4019	0.3411	0.3277	0.2683
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3349	0.2751	0.2621	0.2072
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.2791	0.2218	0.2097	0.1594
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326	0.1789	0.1678	0.1226
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938	0.1443	0.1342	0.0943
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615	0.1164	0.1074	0.0725
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346	0.0938	0.0859	0.0558
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1122	0.0757	0.0687	0.0429
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0935	0.0610	0.0550	0.0330
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779	0.0492	0.0440	0.0254
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649	0.0397	0.0352	0.0195
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0.1229	0.1069	0.0930	0.0541	0.0320	0.0281	0.0150
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1696	0.1456	0.1252	0.1078	0.0929	0.0802	0.0451	0.0258	0.0225	0.0116
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300	0.1108	0.0946	0.0808	0.0691	0.0376	0.0208	0.0180	0.0089
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1636	0.1377	0.1161	0.0981	0.0829	0.0703	0.0596	0.0313	0.0168	0.0144	0.0068
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868	0.0728	0.0611	0.0514	0.0261	0.0135	0.0115	0.0053
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926	0.0768	0.0638	0.0531	0.0443	0.0217	0.0109	0.0092	0.0040
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.1007	0.0826	0.0680	0.0560	0.0462	0.0382	0.0181	0.0088	0.0074	0.0031
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738	0.0601	0.0491	0.0402	0.0329	0.0151	0.0071	0.0059	0.0024
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0817	0.0659	0.0532	0.0431	0.0349	0.0284	0.0126	0.0057	0.0047	0.0018
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.0105	0.0046	0.0038	0.0014
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754	0.0573	0.0437	0.0334	0.0256	0.0196	0.0151	0.0116	0.0042	0.0016	0.0012	*
35	0.7059	0.5000	0.3554	0.2534	0.1813	0.1301	0.0937	0.0676	0.0490	0.0356	0.0259	0.0189	0.0139	0.0102	0.0075	0.0055	0.0017	0.0005	*	*
36	0.6989	0.4902	0.3450	0.2437	0.1727	0.1227	0.0875	0.0626	0.0449	0.0323	0.0234	0.0169	0.0123	0.0089	0.0065	0.0048	0.0014	*	*	*
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0668	0.0460	0.0318	0.0221	0.0154	0.0107	0.0075	0.0053	0.0037	0.0026	0.0007	*	*	*
50	0.6080	0.3715	0.2281	0.1407	0.0872	0.0543	0.0339	0.0213	0.0134	0.0085	0.0054	0.0035	0.0022	0.0014	0.0009	0.0006	*	*	*	*

Table 2 - Present Value Interest Factors for a One-Dollar Annuity Discounted at k Percent for n Periods: $PVIFA = [1 - 1/(1+k)^n] / k$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	24%	25%	30%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333	0.8065	0.8000	0.7692
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5278	1.4568	1.4400	1.3609
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.1065	1.9813	1.9520	1.8161
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.5887	2.4043	2.3616	2.1662
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	2.9906	2.7454	2.6893	2.4356
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.3255	3.0205	2.9514	2.6427
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.6046	3.2423	3.1611	2.8021
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	3.8372	3.4212	3.3289	2.9247
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.0310	3.5655	3.4631	3.0190
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188	4.8332	4.1925	3.6819	3.5705	3.0915
11	10.368	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377	5.6869	5.4527	5.2337	5.0286	4.3271	3.7757	3.6564	3.1473
12	11.255	10.575	9.9840	9.3851	8.8833	8.3828	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944	5.9176	5.6603	5.4206	5.1971	4.4392	3.8514	3.7251	3.1903
13	12.134	11.348	10.635	9.9856	9.3836	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235	6.1218	5.8424	5.5831	5.3423	4.5327	3.9124	3.7801	3.2233
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7485	8.2442	7.7822	7.3667	6.9819	6.6282	6.3025	6.0021	5.7245	5.4675	4.6106	3.9616	3.8241	3.2487
15	13.865	12.849	11.938	11.118	10.380	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109	6.4624	6.1422	5.8474	5.5755	4.6755	4.0013	3.8593	3.2682
16	14.718	13.578	12.561	11.652	10.838	10.106	9.4466	8.8514	8.3126	7.8237	7.3792	6.9740	6.6039	6.2651	5.9542	5.6685	4.7296	4.0333	3.8874	3.2832
17	15.562	14.292	13.166	12.166	11.274	10.477	9.7632	9.1216	8.5436	8.0216	7.5488	7.1196	6.7291	6.3729	6.0472	5.7487	4.7746	4.0591	3.9099	3.2948
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.3719	8.7556	8.2014	7.7016	7.2497	6.8399	6.4674	6.1280	5.8178	4.8122	4.0799	3.9279	3.3037
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.6036	8.9501	8.3649	7.8393	7.3658	6.9380	6.5504	6.1982	5.8775	4.8435	4.0967	3.9424	3.3105
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.8181	9.1285	8.5136	7.9633	7.4694	7.0248	6.6231	6.2593	5.9288	4.8696	4.1103	3.9539	3.3158
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.2922	8.6487	8.0751	7.5620	7.1016	6.6870	6.3125	5.9731	4.8913	4.1212	3.9631	3.3198
22	19.660	17.658	15.937	14.451	13.163	12.042	11.081	10.201	9.4424	8.7715	8.1757	7.6446	7.1695	6.7429	6.3587	6.0113	4.9094	4.1300	3.9705	3.3230
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.5802	8.8832	8.2664	7.7184	7.2297	6.7921	6.3988	6.0442	4.9245	4.1371	3.9764	3.3254
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.7066	8.9847	8.3481	7.7843	7.2829	6.8351	6.4338	6.0726	4.9371	4.1428	3.9811	3.3272
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.8226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	4.9476	4.1474	3.9849	3.3286
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.4269	8.6938	8.0552	7.4957	7.0027	6.5660	6.1772	4.9789	4.1801	3.9950	3.3321
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.635	10.567	9.6442	8.8552	8.1755	7.5856	7.0700	6.6166	6.2153	4.9915	4.1844	3.9984	3.3330
36	30.108	25.489	21.832	18.908	16.547	14.621	13.035	11.717	10.612	9.6765	8.8786	8.1924	7.5979	7.0790	6.6231	6.2201	4.9929	4.1849	3.9987	3.3331
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.7791	8.9511	8.2438	7.6344	7.1050	6.6418	6.2335	4.9966	4.1859	3.9995	3.3332
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.9148	9.0417	8.3045	7.6762	7.1327	6.6605	6.2463	4.9995	4.1866	3.9999	3.3333