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FACULTY OF BUSINESS

FINAL EXAMINATION

Student ID (in Figures)	:	
Student ID (in Words)	:	

Course Code & Name	:	**FIN1613 FINANCIAL INSTITUTIONS AND MARKETS**
Semester & Year	:	SEPTEMBER - DECEMBER 2023
Lecturer/Examiner	:	DR. ABD HADI MUSTAFFA
Duration	:	3 Hours

INSTRUCTIONS TO CANDIDATES

1. **This question paper consists of the following:**
   PART A (25 Marks) : Answer All THREE (3) Short Answer Questions in the Answer Booklet
   PART B (75 Marks) : Answer ALL FOUR (4) Structure Questions in the Answer Booklet
2. **Candidates are not allowed to bring any unauthorized materials except writing equipment into the Exam Hall. Electronic dictionaries are strictly prohibited.**
3. **This question paper must be submitted with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials from the examination hall.**
4. **Only ballpoint pens are allowed to answer the questions, except for multiple choice questions, where 2B pencils are to be used.**

WARNING: The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College.

Total Number of pages = 8 (Including the cover page)

PART A : SHORT ANSWER QUESTIONS (25 Marks)

INSTRUCTION (S) : Answer **All THREE (3)** Short Answer Questions in the Answer Booklet

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QUESTION 1

Financial Markets are the heartbeat of the global economy, where the pulse of opportunity and risk quickens with every trade. Explain any **FOUR (4)** types of Financial Markets available in the World.

(8 Marks)

QUESTION 2

a) Define Monetary Policy.

(2 Marks)

b) Describe **THREE (3)** tools the Central Bank uses in implementing Monetary Policy.

(6 Marks)

QUESTION 3

Financial institutions are the guardians of economic stability, where trust is the currency, and prosperity is the dividend they pay to society. Provide **TWO (2)** differences between Investment Banking, Commercial Banking, and Insurance Companies.

(9 Marks)

[Total: 25 Marks]

END OF PART A

PART B : STRUCTURE QUESTIONS (75 Marks)

INSTRUCTION (S) : Answer **ALL FOUR (4)** Structure Questions in the Answer Booklet.

QUESTION 1

a) Ramli wants to buy a motorcycle, which amounting to RM 6,000. He took a loan from a credit company and must pay RM 6,500 within 3 years. Therefore, what is the interest rate charged by the credit company to Aziz?

(4 Marks)

b) If Abu borrows RM 2,000 from the credit company, and next 5 years later, the total repayment of the loan is RM 3,000, what is the interest rate of his loan?

(4 Marks)

c) Din wants to buy a factory. Therefore, he wants to apply for the bank's RM 400,000 mortgage loan. The bank offers a 6% interest rate scheme and pays every year for 20 years. Compute the annual payment needed for Din to repay the loan using loan value estimation.

(5 Marks)

d) What is the real interest rate if the nominal interest rate is 10% and the expected inflation rate is 13% over a year?

(2 Marks)

[Total: 15 Marks]

QUESTION 2

a) Anthony is interested in purchasing the European money market. There are four options available as per below:

Money market	Expiry days	Face value (EURO)	Purchase price (EURO)
Paris T-bill	250 days	11,000	10,150
Madrid NID	120 days	6,000	5,520
Frankfurt Commercial Paper	160 days	4,500	4,380
Lisbon Banker Acceptance	205 days	15,000	13,675

i. Kindly assist Anthony in estimating the discount rate for each money market.

(8 Marks)

ii. Justify which one should Anthony purchase.

(2 Marks)

b) Corus Berhad is interested to invest in Malaysia Bonds. Currently, the financial manager is evaluating both Bond A and Bond B. Bond A pays 8 percent coupon semi-annually, and matures in 12 years. Bond B pays 7 percent coupon annually, having a maturity period of 13 years.

i. Determine the value of both Bond A and Bond B if the rate of return for both bonds is 8 percent.

(8 Marks)

ii. Which one should Corus Berhad invest if the market price for both bonds equals RM 980? Justify your answer.

(2 Marks)

[Total: 20 Marks]

QUESTION 3

a) Koko Berhad issued preferred stock with dividend of RM 8 per annum. The required rate of return is 12 percent. Compute the value of preferred stock.

(2 Marks)

b) Casa Berhad paid a dividend of RM 1.50 per share last year. The firm expects the dividend will grow constantly at an annual rate of 15 percent. Calculate the company's share value if the required rate of return was 18 percent.

(4 Marks)

c) Setia Berhad is expected to pay a dividend of RM 0.60 per share next year. The dividend is expected to grow at a constant rate of 5 percent. If the required rate of return is 10 percent annually, compute the value of shares today.

(4 Marks)

d) Hamid plans to buy a share of XYZ Company and hold it for the next three years. Last year's dividend was RM 0.50. The dividend is expected to grow at 6% for year 1, 7% for year 2, and 8% for year 3. Then, the dividend will be growing constantly at 9% after that. The required rate of return for this share is 14%, which is currently trading at RM 18.

i. Calculate the value of shares today using the variable growth model.

(8 Marks)

ii. Would Hamid buy this share? Justify your answer.

(2 Marks)

[Total: 20 Marks]

QUESTION 4

a) Given that the currency value of 1 Swedish Krona (SEK) is 0.6687 Chinese Yuan (CNY), while another currency quotes that the value of Trinidad & Tobago Dollar (TTD) is 1.0719 CNY. Therefore, estimate the cross rate between SEK and TTD currency.

(3 Marks)

b) Calculate the cross rate between Mexican Peso (MXP) and Hungarian Forint (HGF) if the value of MXP is 873.58 Indonesian Rupiah (IDR), and the value of HGF is 42.83 IDR.

(3 Marks)

c) Taufiq is applying for a mortgage machine scheme, which is amounting to RM 200,000. The scheme offers 6% interest per year, and it requires Taufiq to pay within 5 years.

i. Calculate the annual instalment amount for this scheme.

(4 Marks)

ii. Construct an amortization schedule for 5 years using the table below as reference.

Year	Beginning amount	Annual Instalment	Interest	Principle Payment	Remaining Balance
1					
2					
3					
4					
5					

(10 Marks)

[Total: 20 Marks]

END OF QUESTION PAPER

Table 3: Present Value Interest Factor for RM 1.00 Annuity Discounted: PVIFA r,n = [1-1/(1 + r)^n]/r

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	22%	24%	26%	28%	30%
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	0.8621	0.8475	0.8333	0.8197	0.8065	0.7937	0.7813	0.7692
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	1.6052	1.5656	1.5278	1.4915	1.4568	1.4235	1.3916	1.3609
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	2.2459	2.1743	2.1065	2.0422	1.9813	1.9234	1.8684	1.8161
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	2.7982	2.6901	2.5887	2.4936	2.4043	2.3202	2.2410	2.1662
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	3.2743	3.1272	2.9906	2.8636	2.7454	2.6351	2.5320	2.4356
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	3.6847	3.4976	3.3255	3.1669	3.0205	2.8850	2.7594	2.6427
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	4.0386	3.8115	3.6046	3.4155	3.2423	3.0833	2.9370	2.8021
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	4.3436	4.0776	3.8372	3.6193	3.4212	3.2407	3.0758	2.9247
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	4.6065	4.3030	4.0310	3.7863	3.5655	3.3657	3.1842	3.0190
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	4.8332	4.4941	4.1925	3.9232	3.6819	3.4648	3.2689	3.0915
11	10.368	9.787	9.253	8.760	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.0286	4.6560	4.3271	4.0354	3.7757	3.5435	3.3351	3.1473
12	11.255	10.575	9.954	9.385	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.1971	4.7932	4.4392	4.1274	3.8514	3.6059	3.3868	3.1903
13	12.134	11.348	10.635	9.986	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.3423	4.9095	4.5327	4.2028	3.9124	3.6555	3.4272	3.2233
14	13.004	12.106	11.296	10.563	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.4675	5.0081	4.6106	4.2646	3.9616	3.6949	3.4587	3.2487
15	13.865	12.849	11.938	11.118	10.380	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.5755	5.0916	4.6755	4.3152	4.0013	3.7261	3.4834	3.2682
16	14.718	13.578	12.561	11.652	10.838	10.106	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.6685	5.1624	4.7296	4.3567	4.0333	3.7509	3.5026	3.2832
17	15.562	14.292	13.166	12.166	11.274	10.477	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	5.7487	5.2223	4.7746	4.3908	4.0591	3.7705	3.5177	3.2948
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.3719	8.7556	8.2014	7.2497	6.4674	5.8178	5.2732	4.8122	4.4187	4.0799	3.7861	3.5294	3.3037
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.6036	8.9501	8.3649	7.3658	6.5504	5.8775	5.3162	4.8435	4.4415	4.0967	3.7985	3.5386	3.3105
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.8181	9.1285	8.5136	7.4694	6.6231	5.9288	5.3527	4.8696	4.4603	4.1103	3.8083	3.5458	3.3158
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.2922	8.6487	7.5620	6.6870	5.9731	5.3837	4.8913	4.4756	4.1212	3.8161	3.5514	3.3198
22	19.660	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.4424	8.7715	7.6446	6.7429	6.0113	5.4099	4.9094	4.4882	4.1300	3.8223	3.5558	3.3230
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.5802	8.8832	7.7184	6.7921	6.0442	5.4321	4.9245	4.4985	4.1371	3.8273	3.5592	3.3254
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.7066	8.9847	7.7843	6.8351	6.0726	5.4509	4.9371	4.5070	4.1428	3.8312	3.5619	3.3272
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.8226	9.0770	7.8431	6.8729	6.0971	5.4669	4.9476	4.5139	4.1474	3.8342	3.5640	3.3286
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.4269	8.0552	7.0027	6.1772	5.5168	4.9789	4.5338	4.1601	3.8424	3.5693	3.3321
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.6442	8.1755	7.0700	6.2153	5.5386	4.9915	4.5411	4.1644	3.8450	3.5708	3.3330
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.7791	8.2438	7.1050	6.2335	5.5482	4.9966	4.5439	4.1659	3.8458	3.5712	3.3332
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.9148	8.3045	7.1327	6.2463	5.5541	4.9995	4.5452	4.1666	3.8461	3.5714	3.3333
60	44.955	34.761	27.676	22.623	18.929	16.161	14.039	12.377	11.048	9.9672	8.3240	7.1401	6.2492	5.5553	4.9999	4.5454	4.1667	3.8462	3.5714	3.3333

Table 4: Future Value Interest Factor for RM 1.00 Annuity Compounded: FVIFA r,n = $[(1 + r)^t - 1]/r$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	22%	24%	26%	28%	30%
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	2.0100	2.0200	2.0300	2.0400	2.0500	2.0600	2.0700	2.0800	2.0900	2.1000	2.1200	2.1400	2.1600	2.1800	2.2000	2.2200	2.2400	2.2600	2.2800	2.3000
3	3.0301	3.0604	3.0909	3.1216	3.1525	3.1836	3.2149	3.2464	3.2781	3.3100	3.3744	3.4396	3.5056	3.5724	3.6400	3.7084	3.7776	3.8476	3.9184	3.9900
4	4.0604	4.1216	4.1836	4.2465	4.3101	4.3746	4.4399	4.5061	4.5731	4.6410	4.7793	4.9211	5.0665	5.2154	5.3680	5.5242	5.6842	5.8480	6.0156	6.1870
5	5.1010	5.2040	5.3091	5.4163	5.5256	5.6371	5.7507	5.8666	5.9847	6.1051	6.3528	6.6101	6.8771	7.1542	7.4416	7.7396	8.0484	8.3684	8.6999	9.0431
6	6.1520	6.3081	6.4684	6.6330	6.8019	6.9753	7.1533	7.3359	7.5233	7.7156	8.1152	8.5355	8.9775	9.4420	9.9299	10.442	10.980	11.544	12.136	12.756
7	7.2135	7.4343	7.6625	7.8983	8.1420	8.3938	8.6540	8.9228	9.2004	9.4872	10.089	10.730	11.414	12.142	12.916	13.740	14.615	15.546	16.534	17.583
8	8.2857	8.5830	8.8923	9.2142	9.5491	9.8975	10.260	10.637	11.028	11.436	12.300	13.233	14.240	15.327	16.499	17.762	19.123	20.588	22.163	23.858
9	9.3685	9.7546	10.159	10.583	11.027	11.491	11.978	12.488	13.021	13.579	14.776	16.085	17.519	19.086	20.799	22.670	24.712	26.940	29.369	32.015
10	10.462	10.950	11.464	12.006	12.578	13.181	13.816	14.487	15.193	15.937	17.549	19.337	21.321	23.521	25.959	28.657	31.643	34.945	38.593	42.619
11	11.567	12.169	12.808	13.486	14.207	14.972	15.784	16.645	17.560	18.531	20.655	23.045	25.733	28.755	32.150	35.962	40.238	45.031	50.398	56.405
12	12.683	13.412	14.192	15.026	15.917	16.870	17.888	18.977	20.141	21.384	24.133	27.271	30.850	34.931	39.581	44.874	50.895	57.739	65.510	74.327
13	13.809	14.680	15.618	16.627	17.713	18.882	20.141	21.495	22.953	24.523	28.029	32.089	36.786	42.219	48.497	55.746	64.110	73.751	84.853	97.625
14	14.947	15.974	17.086	18.292	19.599	21.015	22.550	24.215	26.019	27.975	32.393	37.581	43.672	50.818	59.196	69.010	80.496	93.926	109.61	127.91
15	16.097	17.293	18.599	20.024	21.579	23.276	25.129	27.152	29.361	31.772	37.280	43.842	51.660	60.965	72.035	85.192	100.82	119.35	141.30	167.29
16	17.258	18.639	20.157	21.825	23.657	25.673	27.888	30.324	33.003	35.950	42.753	50.980	60.925	72.939	87.442	104.93	126.01	151.38	181.87	218.47
17	18.430	20.012	21.762	23.698	25.840	28.213	30.840	33.750	36.974	40.545	48.884	59.118	71.673	87.068	105.93	129.02	157.25	191.73	233.79	285.01
18	19.615	21.412	23.414	25.645	28.132	30.906	33.999	37.450	41.301	45.599	55.750	68.394	84.141	103.74	128.12	158.40	195.99	242.59	300.25	371.52
19	20.811	22.841	25.117	27.671	30.539	33.760	37.379	41.446	46.018	51.159	63.440	78.969	98.603	123.41	154.74	194.25	244.03	306.66	385.32	483.97
20	22.019	24.297	26.870	29.778	33.066	36.786	40.995	45.762	51.160	57.275	72.052	91.025	115.38	146.63	186.69	237.99	303.60	387.39	494.21	630.17
21	23.239	25.783	28.676	31.969	35.719	39.993	44.865	50.423	56.765	64.002	81.699	104.77	134.84	174.02	225.03	291.35	377.46	489.11	633.59	820.22
22	24.472	27.299	30.537	34.248	38.505	43.392	49.006	55.457	62.873	71.403	92.503	120.44	157.41	206.34	271.03	356.44	469.06	617.28	812.00	1067.3
23	25.716	28.845	32.453	36.618	41.430	46.996	53.436	60.893	69.532	79.543	104.60	138.30	183.60	244.49	326.24	435.86	582.63	778.77	1040.4	1388.5
24	26.973	30.422	34.426	39.083	44.502	50.816	58.177	66.765	76.790	88.497	118.16	158.66	213.98	289.49	392.48	532.75	723.46	982.25	1332.7	1806.0
25	28.243	32.030	36.459	41.646	47.727	54.865	63.249	73.106	84.701	98.347	133.33	181.87	249.21	342.60	471.98	650.96	898.09	1238.6	1706.8	2348.8
30	34.785	40.568	47.575	56.085	66.439	79.058	94.461	113.28	136.31	164.49	241.33	356.79	530.31	790.95	1181.9	1767.1	2640.9	3942.0	5873.2	8730.0
35	41.660	49.994	60.462	73.652	90.320	111.43	138.24	172.32	215.71	271.02	431.66	693.57	1120.7	1816.7	2948.3	4783.6	7750.2	12527	20189	32423
40	48.886	60.402	75.401	95.026	120.80	154.76	199.64	259.06	337.88	442.59	767.09	1342.0	2360.8	4163.2	7343.9	12937	22729	39793	69377	120393
50	64.463	84.579	112.80	152.67	209.35	290.34	406.53	573.77	815.08	1163.9	2400.0	4994.5	10436	21813	45497	94525	195373	401374	819103	1659761
60	81.670	114.052	163.05	237.99	353.58	533.13	813.52	1253.2	1944.8	3034.8	7471.6	18535	46058	114190	281733	690501	1679147	4048172	9670301	22881254

LIST OF FORMULAS

1) $\boldsymbol{PV = \frac{CF}{(1+i)^n}}$

2) **Loan value = Fixed payment x** $\left(\frac{\left[1-\left(\frac{1}{(1+r)^n}\right)\right]}{r} \right)$

3) $\boldsymbol{i_r = i - \pi^e}$

4) $\boldsymbol{R = \frac{C + P_{t+1} - Pt}{Pt}}$

5) $i_{discount\ rate} = \left(\frac{F-P}{F}\right) x \left(\frac{360}{n}\right)$

6) $Vb = \frac{C}{m}\left(PVIFA_{\frac{k}{m},\ n\,x\,m}\right) + PV\left(PVIF_{\frac{k}{m},\ n\,x\,m}\right)$

7) $YTM = \left(\frac{\left[\frac{c}{m}\right] + \left[\frac{PV-MP}{n\,x\,m}\right]}{\left[\frac{PV+MP}{2}\right]}\right) x\ 100$

8) $\boldsymbol{Vs = \frac{D}{k}}$

9) $\boldsymbol{Vs = \frac{D1}{k-g}}$ **OR** $\boldsymbol{Vs = \frac{Do\,(1+g)}{k-g}}$

10) $\boldsymbol{Dn = D_{n-1}(1+g)}$

11) $\boldsymbol{SP_n = \frac{D_n(1+g)}{k-g}}$

12) $\boldsymbol{PVA = PMT\ x\left(PVIFA_{\frac{k}{m},\ n\,x\,m}\right)}$

13) **Bid-ask spread =** $\boldsymbol{\frac{Ask\ rate - Bid\ rate}{Ask\ rate}\ x\ 100}$

14) **Cross rate exchange A to B =** $\boldsymbol{\frac{Currency\ value\ A}{Currency\ value\ B}}$

15) **Net trade = Export - Import**