

**FINAL EXAMINATION****BACHELOR OF ACCOUNTANCY (HONOURS)****COURSE : FINANCIAL MANAGEMENT****COURSE CODE : FIN2283****DURATION : 3 HOURS****INSTRUCTIONS TO CANDIDATES:**

1. This question paper consists of **FOUR (4)** questions.
2. Answer ALL questions in the Answer Booklet provided.
3. Please check to make sure that this examination pack consists of:
 - i. The Question Paper.
 - ii. An Answer Booklet.
 - iii. Appendix 1 – 4.
4. Do not bring any material into the examination hall. The use of a calculator is allowed.
5. Please write your answer using permanent ink.

MYKAD/ PASSPORT NO : _____

ID. NO. : _____

LECTURER : _____

SECTION : _____

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO

This question paper consists of 7 printed pages, including the front page.

QUESTION 1

- a. Daniel has recently started investing part of his income into an equity index fund that is known for steady long-term growth. He decides to consistently set aside RM21,000 every year for 15 years, regardless of market ups and downs, trusting the fund's average return of 7% per year. Assuming he stays disciplined with his contributions throughout, how much would he have accumulated by the end of the 15 years?
(3 marks)
- b. Siti has a financial obligation that must be fully settled in 3 years, amounting to RM1,112. Instead of waiting and trying to save later, her friend Farhan suggests placing a single lump sum into a savings account today that earns 4% interest per year, so that it naturally grows into the required amount by the deadline. What amount should Farhan deposit now so that Siti's obligation is fully covered at the end of 3 years?
(3 marks)
- c. An investor is evaluating a savings product offered by a local bank that promotes a high annual return of 24%, with interest compounded every month. He decides to test it by placing an initial deposit of RM14,000 and leaves it untouched for 2 years to observe how the compounding effect works in practice. How much would the account balance be after 2 years?
(5 marks)
- d. A renewable energy project is being assessed by an investor group. The project is expected to generate consistent cash inflows of RM55,500 every year for 7 years. However, because of risk considerations and alternative investment opportunities, the investors require a return of 7% annually before committing funds. Based on these expectations, they want to determine the maximum amount they should be willing to pay today to acquire the project's income stream. What is that amount?
(3 marks)
- e. A young professional is planning early retirement and sets a long-term goal of having RM110,000 saved within 9 years. Instead of irregular saving, she plans to deposit a fixed amount into a savings account that offers 5% annual interest, allowing the savings to grow steadily over time. Assuming she starts now and does not miss any contributions, what amount should she set aside today to reach her target?
(3 marks)
- f. A parent opens a savings account for a long-term goal and deposits RM5,000 as an initial amount. The account earns 7% interest per year, compounded annually, and no additional deposits or withdrawals are made. The money is left untouched for 10 years as part of a long-term financial plan. How much will the account balance be after 10 years?
(3 marks)
- g. A borrower takes a personal loan of RM7,000 from a financial institution to cover emergency expenses. The agreement requires the loan to be repaid in equal yearly instalments over 4 years, with an interest rate of 6% per year applied on the outstanding balance. What would each yearly repayment amount be to settle the loan within the agreed period fully?
(5 marks)

(Total: 25 marks)

QUESTION 2

A diversified manufacturing group, Orion Nexus Holdings, is currently reviewing a major expansion project estimated at RM211 million. The CFO is reassessing the company's financing structure, considering multiple funding alternatives and the impact on cost efficiency and capital structure stability. As of 31 March 2026, Orion Nexus Holdings reports the following capital structure:

Component	RM'000
Bonds	310,000
Preference Shares	210,000
Ordinary Share Capital	110,000
Share Premium	110,000
Retained Earnings	140,000
Total	880,000

The company is evaluating three financing routes:

The first option involves issuing new bonds with a nominal value of RM1,000 each at RM900 per unit. However, each bond issue will incur an RM14 issuance cost per unit. The bonds carry a 12% annual coupon rate and will be redeemed at par (RM1,000) after 15 years.

The second option is to issue preference shares with a par value of RM100 at an issue price of RM120 per share, offering a 6% dividend rate. A 4% flotation cost based on the issue price will be incurred.

The third option is to raise funds through new ordinary shares currently trading at RM7 per share, but the market issue price will incur a 5% flotation cost. The most recent dividend paid was RM0.50 per share, expected to grow at a constant rate of 6% per annum indefinitely. Additionally, Orion Nexus Holdings has set aside RM44 million of retained earnings to partially finance the project. The corporate tax rate is 25%.

Management is now analyzing the implications of each financing source before finalizing the optimal capital structure for the expansion.

Required:

a. Compute the following:

- i. The number of bonds, preference shares, and ordinary shares that must be issued to meet the financing requirements. (5 marks)
- ii. The after-tax cost of debt for the proposed bond issuance. (7.5 marks)
- iii. The cost of preference share financing. (2.5 marks)

- iv. The cost of retained earnings using an appropriate equity valuation approach.
(4 marks)
 - v. The cost of raising new external equity through ordinary shares.
(3 marks)
 - b. Assess the maximum capital expenditure the firm can undertake without resorting to new equity issuance.
(1 mark)
 - c. Show the weighted average cost of capital (WACC) assuming the investment is fully implemented using the available sources of finance.
(2 marks)
- (Total: 25 marks)

QUESTION 3

A boutique investment advisory firm, Hydrangea Capital Advisory, has been engaged by a private conglomerate preparing for a potential merger and internal restructuring exercise. Before any negotiations proceed, the board wants a clearer understanding of how the company should be valued and why such a valuation matters in strategic decision-making.

The engagement team explains that valuing a business is not a simple “price tag” exercise. Instead, it requires careful consideration of multiple dimensions such as financial performance, asset quality, risk profile, expected future earnings, and prevailing market conditions. Different stakeholders may also apply different approaches depending on industry norms and valuation objectives. In this context, the board is seeking a structured explanation of valuation concepts to support their upcoming decision-making process.

Required:

- a. Assess **FIVE (5)** reasons why business valuation is important for stakeholders such as investors, managers, and potential acquirers.
(5 marks)
- b. Construct **TWO (2)** common techniques used in determining the economic value of a business.
(5 marks)

(Total: 10 marks)

QUESTION 4

- a. Aurora Hijab Essentials Sdn Bhd is a Malaysian lifestyle beauty-tech firm known for its halal-certified, wudhu-compatible skincare innovations. Since its early beginnings in 2015 as a small-scale enterprise, the company has evolved into a private limited entity with a strong regional presence, operating in Malaysia, Singapore, Brunei, and Thailand. Its distribution ecosystem now spans more than 200,000 independent partners across Southeast Asia.

To support its next phase of growth, the company is launching a new advanced production line aimed at enhancing product customization capabilities. This expansion involves acquiring a specialized manufacturing machine priced at RM2.1 million, which will be depreciated on a straight-line basis over a 9-year useful life. In addition, the project requires RM140,000 for logistics and installation, as well as RM54,000 allocated for staff technical training.

As part of a strategic collaboration, Syed Mokhtar AlBukhary Company has agreed to finance 50% of these setup-related expenses as a goodwill contribution. The machine is to be purchased via a supplier credit arrangement, which carries an annual financing charge of RM44,000. Operationally, the new line is projected to generate sales revenue beginning at RM500,000 in the first 5 years, with annual increments of RM150,000 thereafter until the end of the machine's 9-year economic life. The project is subject to a 25% corporate tax rate, and the required rate of return is 12% per annum.

Required:

- i. Show the initial cash outlay for the project. (3 marks)
- ii. Compute the annual differential cash flow associated with the project. (9 marks)

- b. Amanah Niaga Holdings Sdn Bhd, a Malaysian Muslim-owned company specializing in halal food manufacturing and distribution, is currently assessing two strategic expansion opportunities to strengthen its market presence across Southeast Asia. Due to financial constraints and operational capacity, the company can only proceed with one investment proposal.

The Chief Financial Officer (CFO) believes that the project generating the greatest value contribution to shareholders should be prioritized. However, the Managing Director argues that the project with the higher percentage return would be the more attractive choice.

Both investment opportunities are expected to operate within comparable planning periods, and the company applies a required rate of return of 10% when evaluating capital projects.

The projected net after-tax cash inflows for the two proposals are as follows:

Year	Queensland (RM'000)	Victoria (RM'000)
0	(55,000)	(65,000)
1	15,000	50,000
2	60,000	25,000
3	—	10,000

The management team has requested a financial assessment before making its final investment decision.

Required:

- i. Compute the following for each project:
 - a. Net Present Value (NPV). (12 marks)
 - b. Internal Rate of Return (IRR). (10 marks)
 - c. Profitability Index (PI). (4 marks)
- ii. Discover which project the company should undertake and justify your recommendation. (2 marks)

(Total: 40 marks)

(TOTAL: 100 MARKS)

END OF QUESTION PAPER

APPENDIX 1

Future Value Interest Factor of \$1 per period at i% for n periods, FVIF(i,n)																					
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	21%	22%	23%	24%	25%	
1	1.0100	1.0200	1.0300	1.0400	1.0500	1.0600	1.0700	1.0800	1.0900	1.1000	1.1200	1.1400	1.1600	1.1800	1.2000	1.2100	1.2200	1.2300	1.2400	1.2500	
2	1.0201	1.0404	1.0609	1.0816	1.1025	1.1236	1.1449	1.1664	1.1881	1.2100	1.2544	1.2996	1.3456	1.3924	1.4400	1.4641	1.4884	1.5129	1.5376	1.5625	
3	1.0303	1.0612	1.0927	1.1249	1.1576	1.1910	1.2250	1.2597	1.2950	1.3310	1.4049	1.4815	1.5609	1.6430	1.7280	1.7716	1.8158	1.8609	1.9066	1.9531	
4	1.0406	1.0824	1.1255	1.1699	1.2155	1.2625	1.3108	1.3605	1.4116	1.4641	1.5735	1.6890	1.8106	1.9388	2.0736	2.1436	2.2153	2.2889	2.3642	2.4414	
5	1.0510	1.1041	1.1593	1.2167	1.2763	1.3382	1.4026	1.4693	1.5386	1.6105	1.7623	1.9254	2.1003	2.2878	2.4883	2.5937	2.7027	2.8153	2.9316	3.0518	
6	1.0615	1.1262	1.1941	1.2653	1.3401	1.4185	1.5007	1.5869	1.6771	1.7716	1.9738	2.1950	2.4364	2.6996	2.9860	3.1384	3.2973	3.4628	3.6352	3.8147	
7	1.0721	1.1487	1.2299	1.3159	1.4071	1.5036	1.6058	1.7138	1.8280	1.9487	2.2107	2.5023	2.8262	3.1855	3.5832	3.7975	4.0227	4.2593	4.5077	4.7684	
8	1.0829	1.1717	1.2668	1.3686	1.4775	1.5938	1.7182	1.8509	1.9926	2.1436	2.4760	2.8526	3.2784	3.7589	4.2998	4.5950	4.9077	5.2389	5.5895	5.9605	
9	1.0937	1.1951	1.3048	1.4233	1.5513	1.6895	1.8385	1.9990	2.1719	2.3579	2.7731	3.2519	3.8030	4.4355	5.1598	5.5599	5.9874	6.4439	6.9310	7.4506	
10	1.1046	1.2190	1.3439	1.4802	1.6289	1.7908	1.9672	2.1589	2.3674	2.5937	3.1058	3.7072	4.4114	5.2338	6.1917	6.7275	7.3046	7.9259	8.5944	9.3132	
11	1.1157	1.2434	1.3842	1.5395	1.7103	1.8983	2.1049	2.3316	2.5804	2.8531	3.4785	4.2262	5.1173	6.1759	7.4301	8.1403	8.9117	9.7489	10.6571	11.6415	
12	1.1268	1.2682	1.4258	1.6010	1.7959	2.0122	2.2522	2.5182	2.8127	3.1384	3.8960	4.8179	5.9360	7.2876	8.9161	9.8497	10.8722	11.9912	13.2148	14.5519	
13	1.1381	1.2936	1.4685	1.6651	1.8856	2.1329	2.4098	2.7196	3.0658	3.4523	4.3635	5.4924	6.8858	8.5994	10.6993	11.9182	13.2641	14.7491	16.3863	18.1899	
14	1.1495	1.3195	1.5126	1.7317	1.9799	2.2609	2.5785	2.9372	3.3417	3.7975	4.8871	6.2613	7.9875	10.1472	12.8392	14.4210	16.1822	18.1414	20.3191	22.7374	
15	1.1610	1.3459	1.5580	1.8009	2.0789	2.3966	2.7590	3.1722	3.6425	4.1772	5.4736	7.1379	9.2655	11.9737	15.4070	17.4494	19.7423	22.3140	25.1956	28.4217	
16	1.1726	1.3728	1.6047	1.8730	2.1829	2.5404	2.9522	3.4259	3.9703	4.5950	6.1304	8.1372	10.7480	14.1290	18.4884	21.1138	24.0856	27.4462	31.2426	35.5271	
17	1.1843	1.4002	1.6528	1.9479	2.2920	2.6928	3.1588	3.7000	4.3276	5.0545	6.8660	9.2765	12.4677	16.6722	22.1861	25.5477	29.3844	33.7588	38.7408	44.4089	
18	1.1961	1.4282	1.7024	2.0258	2.4066	2.8543	3.3799	3.9960	4.7171	5.5599	7.6900	10.5752	14.4625	19.6733	26.6233	30.9127	35.8490	41.5233	48.0386	55.5112	
19	1.2081	1.4568	1.7535	2.1068	2.5270	3.0256	3.6165	4.3157	5.1417	6.1159	8.6128	12.0557	16.7765	23.2144	31.9480	37.4043	43.7358	51.0737	59.5679	69.3889	
20	1.2202	1.4859	1.8061	2.1911	2.6533	3.2071	3.8697	4.6610	5.6044	6.7275	9.6463	13.7435	19.4608	27.3930	38.3376	45.2593	53.3576	62.8206	73.8641	86.7362	
21	1.2324	1.5157	1.8603	2.2788	2.7860	3.3996	4.1406	5.0338	6.1088	7.4002	10.8038	15.6676	22.5745	32.3238	46.0051	54.7637	65.0963	77.2694	91.5915	108.4202	
22	1.2447	1.5460	1.9161	2.3699	2.9253	3.6035	4.4304	5.4365	6.6586	8.1403	12.1003	17.8610	26.1864	38.1421	55.2061	66.2641	79.4175	95.0413	113.5735	135.5253	
23	1.2572	1.5769	1.9736	2.4647	3.0715	3.8197	4.7405	5.8715	7.2579	8.9543	13.5523	20.3616	30.3762	45.0076	66.2474	80.1795	96.8894	116.9008	140.8312	169.4066	
24	1.2697	1.6084	2.0328	2.5633	3.2251	4.0489	5.0724	6.3412	7.9111	9.8497	15.1786	23.2122	35.2364	53.1090	79.4968	97.0172	118.2050	143.7880	174.6306	211.7582	
25	1.2824	1.6406	2.0938	2.6658	3.3864	4.2919	5.4274	6.8485	8.6231	10.8347	17.0001	26.4619	40.8742	62.6686	95.3962	117.3909	144.2101	176.8593	216.5420	264.6978	

Future Value Interest Factor of an (ordinary) Annuity \$1 per period at i% for n periods, FVIFA(i,n)																					
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	21%	22%	23%	24%	25%	
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	2.2100	2.2200	2.2300	2.2400	2.2500	
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	3.6741	3.7084	3.7429	3.7776	3.8125	
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	5.4457	5.5242	5.6038	5.6842	5.7656	
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	7.5892	7.7396	7.8926	8.0484	8.2070	
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	10.1830	10.4423	10.7079	10.9801	11.2588	
7	7.2135	7.4343	7.6625	7.8983	8.1420	8.3938	8.6540	8.9228	9.2004	9.4872	10.0890	10.7305	11.4139	12.1415	12.9159	13.3214	13.7396	14.1708	14.6153	15.0735	
8	8.2857	8.5830	8.8923	9.2142	9.5491	9.8975	10.2598	10.6366	11.0285	11.4359	12.2997	13.2328	14.2401	15.3270	16.4991	17.1189	17.7623	18.4300	19.1229	19.8419	
9	9.3685	9.7546	10.1591	10.5828	11.0266	11.4913	11.9780	12.4876	13.0210	13.5795	14.7757	16.0853	17.5185	19.0859	20.7989	21.7139	22.6700	23.6690	24.7125	25.8023	
10	10.4622	10.9497	11.4639	12.0061	12.5779	13.1808	13.8164	14.4866	15.1929	15.9374	17.5487	19.3373	21.3215	23.5213	25.9587	27.2738	28.6574	30.1128	31.6434	33.2529	
11	11.5668	12.1687	12.8078	13.4864	14.2068	14.9716	15.7836	16.6455	17.5603	18.5312	20.6546	23.0445	25.7329	28.7551	32.1504	34.0013	35.9620	38.0388	40.2379	42.5661	
12	12.6825	13.4121	14.1920	15.0258	15.9171	16.8699	17.8885	18.9771	20.1407	21.3843	24.1331	27.2707	30.8502	34.9311	39.5805	42.1416	44.8737	47.7877	50.8950	54.2077	
13	13.8093	14.6803	15.6178	16.6268	17.7130	18.8821	20.1406	21.4953	22.9534	24.5227	28.0291	32.0887	36.7862	42.2187	48.4966	51.9913	55.7459	59.7788	64.1097	68.7596	
14	14.9474	15.9739	17.0863	18.2919	19.5986	21.0151	22.5505	24.2149	26.0192	27.9750	32.3926	37.5811	43.6720	50.8180	59.1959	63.9095	69.0100	74.5280	80.4961	86.9495	
15	16.0969	17.2934	18.5989	20.0236	21.5786	23.2760	25.1290	27.1521	29.3609	31.7725	37.2797	43.8424	51.6595	60.9653	72.0351	78.3305	85.1922	92.6694	100.815	109.687	
16	17.2579	18.6393	20.1569	21.8245	23.6575	25.6725	27.8881	30.3243	33.0034	35.9497	42.7533	50.9804	60.9250	72.9390	87.4421	95.7799	104.935	114.983	126.011	138.109	
17	18.4304	20.0121	21.7616	23.6975	25.8404	28.2129	30.8402	33.7502	36.9737	40.5447	48.8837	59.1176	71.6730	87.0680	105.931	116.894	129.020	142.430	157.253	173.636	
18	19.6147	21.4123	23.4144	25.6454	28.1324	30.9057	33.9990	37.4502	41.3013	45.5992	55.7497	68.3941	84.1407	103.740	128.117	142.441	158.405	176.188	195.994	218.045	
19	20.8109	22.8406	25.1169	27.6712	30.5390	33.7600	37.3790	41.4463	46.0185	51.1591	63.4397	78.9692	98.6032	123.414	154.740	173.354	194.254	217.712	244.033	273.556	
20	22.0190	24.2974	26.8704	29.7781	33.0660	36.7856	40.9955	45.7620	51.1601	57.2750	72.0524	91.0249	115.380	146.628	186.688	210.758	237.989	268.785	303.601	342.945	
21	23.2392	25.7833	28.6765	31.9692	35.7193	39.9927	44.8652	50.4229	56.7645	64.0025	81.6987	104.768	134.841	174.021	225.026	256.018	291.347	331.606	377.465	429.681	
22	24.4716	27.2990	30.5368	34.2480	38.5052	43.3923	49.0057	55.4568	62.8733	71.4027	92.5026	120.436	157.415	206.345	271.031	310.781	356.443	408.875	469.056	538.101	
23	25.7163	28.8450	32.4529	36.6179	41.4305	46.9958	53.4361	60.8933	69.5319	79.5430	104.603	138.297	183.601	244.487	326.237	377.045	435.861	503.917	582.630	673.626	
24	26.9735	30.4219	34.4265	39.0826	44.5020	50.8156	58.1767	66.7648	76.7898	88.4973	118.155	158.659	213.978	289.494	392.484	457.225	532.750	620.817	723.461	843.033	
25	28.2432	32.0303	36.4593	41.6459	47.7271	54.8645	63.2490	73.1059	84.7009	98.3471	133.334	181.871	249.214	342.603	471.981	554.242	650.955	764.605	898.092	1054.8	

APPENDIX 3

Present Value Interest Factor of \$1 per period at i% for n periods, PVIF(i,n)																					
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	21%	22%	23%	24%	25%	
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	0.8264	0.8197	0.8130	0.8065	0.8000	
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.7972	0.7695	0.7432	0.7182	0.6944	0.6830	0.6719	0.6610	0.6504	0.6400	
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7118	0.6750	0.6407	0.6086	0.5787	0.5645	0.5507	0.5374	0.5245	0.5120	
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6355	0.5921	0.5523	0.5158	0.4823	0.4665	0.4514	0.4369	0.4230	0.4096	
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5674	0.5194	0.4761	0.4371	0.4019	0.3855	0.3700	0.3552	0.3411	0.3277	
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5066	0.4556	0.4104	0.3704	0.3349	0.3186	0.3033	0.2888	0.2751	0.2621	
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4523	0.3996	0.3538	0.3139	0.2791	0.2633	0.2486	0.2348	0.2218	0.2097	
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4039	0.3506	0.3050	0.2660	0.2326	0.2176	0.2038	0.1909	0.1789	0.1678	
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3606	0.3075	0.2630	0.2255	0.1938	0.1799	0.1670	0.1552	0.1443	0.1342	
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3220	0.2697	0.2267	0.1911	0.1615	0.1486	0.1369	0.1262	0.1164	0.1074	
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.2875	0.2366	0.1954	0.1619	0.1346	0.1228	0.1122	0.1026	0.0938	0.0859	
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2567	0.2076	0.1685	0.1372	0.1122	0.1015	0.0920	0.0834	0.0757	0.0687	
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2292	0.1821	0.1452	0.1163	0.0935	0.0839	0.0754	0.0678	0.0610	0.0550	
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2046	0.1597	0.1252	0.0985	0.0779	0.0693	0.0618	0.0551	0.0492	0.0440	
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.1827	0.1401	0.1079	0.0835	0.0649	0.0573	0.0507	0.0448	0.0397	0.0352	
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1631	0.1229	0.0930	0.0708	0.0541	0.0474	0.0415	0.0364	0.0320	0.0281	
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1456	0.1078	0.0802	0.0600	0.0451	0.0391	0.0340	0.0296	0.0258	0.0225	
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1300	0.0946	0.0691	0.0508	0.0376	0.0323	0.0279	0.0241	0.0208	0.0180	
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1161	0.0829	0.0596	0.0431	0.0313	0.0267	0.0229	0.0196	0.0168	0.0144	
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1037	0.0728	0.0514	0.0365	0.0261	0.0221	0.0187	0.0159	0.0135	0.0115	
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.0926	0.0638	0.0443	0.0309	0.0217	0.0183	0.0154	0.0129	0.0109	0.0092	
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.0826	0.0560	0.0382	0.0262	0.0181	0.0151	0.0126	0.0105	0.0088	0.0074	
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0738	0.0491	0.0329	0.0222	0.0151	0.0125	0.0103	0.0086	0.0071	0.0059	
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0659	0.0431	0.0284	0.0188	0.0126	0.0103	0.0085	0.0070	0.0057	0.0047	
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0588	0.0378	0.0245	0.0160	0.0105	0.0085	0.0069	0.0057	0.0046	0.0038	

Present Value Interest Factor of an (ordinary) Annuity \$1 per period at i% for n periods, PVIFA(i,n)																					
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	21%	22%	23%	24%	25%	
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	0.8264	0.8197	0.8130	0.8065	0.8000	
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	1.5095	1.4915	1.4740	1.4568	1.4400	
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	2.0739	2.0422	2.0114	1.9813	1.9520	
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	2.5404	2.4936	2.4483	2.4043	2.3616	
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	2.9260	2.8636	2.8035	2.7454	2.6893	
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	3.2446	3.1669	3.0923	3.0205	2.9514	
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	3.5079	3.4155	3.3270	3.2423	3.1611	
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	3.7256	3.6193	3.5179	3.4212	3.3289	
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	3.9054	3.7863	3.6731	3.5655	3.4631	
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	4.0541	3.9232	3.7993	3.6819	3.5705	
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	5.0286	4.6560	4.3271	4.1769	4.0354	3.9018	3.7757	3.6564	
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	5.1971	4.7932	4.4392	4.2784	4.1274	3.9852	3.8514	3.7251	
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	5.3423	4.9095	4.5327	4.3624	4.2028	4.0530	3.9124	3.7801	
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	5.4675	5.0081	4.6106	4.4317	4.2646	4.1082	3.9616	3.8241	
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	5.5755	5.0916	4.6755	4.4890	4.3152	4.1530	4.0013	3.8593	
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	5.6885	5.1624	4.7296	4.5364	4.3567	4.1894	4.0333	3.8874	
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	5.7487	5.2223	4.7746	4.5755	4.3908	4.2190	4.0591	3.9099	
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	5.8178	5.2732	4.8122	4.6079	4.4187	4.2431	4.0799	3.9279	
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	5.8775	5.3162	4.8435	4.6346	4.4415	4.2627	4.0967	3.9424	
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	5.9288	5.3527	4.8696	4.6567	4.4603	4.2786	4.1103	3.9539	
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	5.9731	5.3837	4.8913	4.6750	4.4756	4.2916	4.1212	3.9631	
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	6.0113	5.4099	4.9094	4.6900	4.4882	4.3021	4.1300	3.9705	
23	20.4558	18.2922	16.4436	14.8568	13.4886	12.3034	11.2722	10.3711	9.5802	8.8832	7.7184	6.7921	6.0442	5.4321	4.9245	4.7025	4.4985	4.3106	4.1371	3.9764	
24	21.2434	18.9139	16.9355	15.2470	13.7986	12.5504	11.4693	10.5288	9.7066	8.9847	7.7843	6.8351	6.0726	5.4509	4.9371	4.7128	4.5070	4.3176	4.1428	3.9811	
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	6.0971	5.4669	4.9476	4.7213	4.5139	4.3232	4.1474	3.9849	

