

UNIVERSITI SAINS MALAYSIA

Peperiksaan Semester Tambahan  
Sidang Akademik 1993/94

Jun 1994

EUP 101 - EKONOMI KEJURUTERAAN

Masa : [2 jam]

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**ARAHAN KEPADA CALON:**

Sila pastikan bahawa kertas peperiksaan ini mengandungi TIGA (3) muka surat bercetak dan SEMBILAN (9) lampiran Jadual Faktor serta EMPAT (4) soalan sebelum anda memulakan peperiksaan ini.

Jawab semua soalan.

Semua kompaun dilakukan pada penghujung tempoh (end of period compounding) kecuali diberitahu sebaliknya.

Tunjuk semua jalan penyelesaian kepada TIGA (3) angka bernilai.

Semua kadar faedah yang diberikan ialah kadar faedah sebenar untuk setahun ("per-annum effective rates") kecuali diberitahu sebaliknya.

1. Encik Ali sedang menimbangkan untuk melabur wang sebanyak RM10,000.00 dalam salah satu dari dua alternatif yang ada. Kadar faedah ialah 10% setahun. Alternatifnya yang pertama ialah pelaburan awal sebanyak RM10,000.00 dan pelaburan tambahan sebanyak RM3,000.00 setahun. Hasil dari pelaburan tersebut dijangkakan ialah RM6,000.00 setahun selama 5 (lima) tahun dan nilai sisa aset selepas lima tahun ialah RM100.00

Alternatif kedua juga memerlukan wang pelaburan awal sebanyak RM10,000.00, tetapi tidak ada sebarang aliran wang tunai selama 20 tahun. Nilai aset sisa pada akhir tahun ke 20 ialah RM60,000.00

Menggunakan kaedah nilai kini (Present Worth Method) tentukan alternatif mana yang perlu dipilih.

(20%)

2. Syarikat ORP sedang menimbangkan untuk membeli alat 'theodolite' yang baru untuk kerja-kerja mengukur. Alat-alat tersebut ialah:

	A	B
Kos awal (RM)	4,000	6,000
Hayat (tahun)	10	15
Kos tahunan (RM)	300	150
Nilai sisa (RM)	400	600

MARR untuk syarikat tersebut ialah 30%.

- (a) Menggunakan kaedah kos tahunan (annual worth) tentukan alat mana yang perlu dipilih?

(15%)

- (b) Semak keputusan (a) dengan menggunakan kaedah nilai kini.

(15%)

3. Syarikat NMR ingin membeli beberapa peralatan makmal untuk tujuan konsultasi. Selepas 10 tahun, peralatan-peralatan tersebut akan dijual semula, MARR untuk syarikat tersebut ialah 15%. Alat-alat tersebut ialah seperti berikut:-

Alat	A	B	C	D
Kos awal	140	163	190	220
Harga sisa	125	138	155	175
Keuntungan tahunan	24	28	31	38 ✓

Alternatif mana yang perlu dipilih jika kaedah kadar pulangan (Rate of return method) digunakan.

(25%)

4. Jika kaedah nisbah kebaikan - kos (Benefit to cost ratio) digunakan untuk soalan (3) alternatif mana yang perlu dipilih?

(25%)

ALIRAN TUNAI DISKRET  
1 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0100		0.9901	1.00000		
2	1.0201	0.9803	0.49751	2.010	0.50751	1.9704	2
3	1.0303	0.9706	0.33002	3.030	0.34002	2.9410	3
4	1.0406	0.9610	0.24628	4.060	0.25628	3.9020	4
5	1.0510	0.9515	0.19604	5.101	0.20604	4.8534	5
6	1.0615	0.9420	0.16255	6.152	0.17255	5.7955	6
7	1.0721	0.9327	0.13863	7.214	0.14863	6.7282	7
8	1.0829	0.9235	0.12069	8.286	0.13069	7.6517	8
9	1.0937	0.9143	0.10674	9.369	0.11674	8.5680	9
10	1.1046	0.9053	0.09558	10.462	0.10558	9.4713	10
11	1.1157	0.8963	0.08645	11.567	0.09645	10.3676	11
12	1.1268	0.8874	0.07885	12.683	0.08885	11.2551	12
13	1.1381	0.8787	0.07241	13.809	0.08241	12.1337	13
14	1.1495	0.8700	0.06690	14.947	0.07690	13.0037	14
15	1.1610	0.8613	0.06212	16.097	0.07212	13.8651	15
16	1.1726	0.8528	0.05794	17.258	0.06794	14.7179	16
17	1.1843	0.8444	0.05426	18.430	0.06426	15.5623	17
18	1.1961	0.8360	0.05098	19.615	0.06098	16.3983	18
19	1.2081	0.8277	0.04805	20.811	0.05805	17.2260	19
20	1.2202	0.8195	0.04542	22.019	0.05542	18.0458	20

ALIRAN TUNAI DISKRET  
2 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0200		0.9804	1.00000		
2	1.0404	0.9612	0.49505	2.020	0.51505	1.9416	2
3	1.0612	0.9423	0.32675	3.060	0.34675	2.8839	3
4	1.0824	0.9238	0.24262	4.122	0.26262	3.8077	4
5	1.1041	0.9057	0.19216	5.204	0.21216	4.7135	5
6	1.1262	0.8880	0.15853	6.308	0.17853	5.6014	6
7	1.1487	0.8706	0.13451	7.434	0.15451	6.4720	7
8	1.1717	0.8535	0.11651	8.583	0.13651	7.3255	8
9	1.1951	0.8368	0.10252	9.755	0.12252	8.1622	9
10	1.2190	0.8203	0.09133	10.950	0.11133	8.9826	10
11	1.2434	0.8043	0.08218	12.169	0.10218	9.7868	11
12	1.2682	0.7885	0.07456	13.412	0.09456	10.5753	12
13	1.2936	0.7730	0.06812	14.680	0.08812	11.3484	13
14	1.3195	0.7579	0.06260	15.974	0.08260	12.1062	14
15	1.3459	0.7431	0.05783	17.293	0.07783	12.8493	15
16	1.3728	0.7284	0.05365	18.639	0.07365	13.5777	16
17	1.4002	0.7142	0.04997	20.012	0.06997	14.2919	17
18	1.4282	0.7002	0.04670	21.412	0.06670	14.9920	18
19	1.4568	0.6864	0.04378	22.841	0.06378	15.6785	19
20	1.4859	0.6730	0.04116	24.297	0.06116	16.3514	20

ALIRAN TUNAI DISKRET  
3 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0300		0.9709	1.00000		
2	1.0609	0.9426	0.49261	2.030	0.52261	1.9135	2
3	1.0927	0.9151	0.32353	3.091	0.35353	2.8286	3
4	1.1255	0.8885	0.23903	4.184	0.26903	3.7171	4
5	1.1593	0.8626	0.18835	5.309	0.21835	4.5797	5
6	1.1941	0.8375	0.15460	6.468	0.18460	5.4172	6
7	1.2299	0.8131	0.13051	7.662	0.16051	6.2303	7
8	1.2668	0.7894	0.11246	8.892	0.14246	7.0197	8
9	1.3048	0.7664	0.09843	10.159	0.12843	7.7861	9
10	1.3439	0.7441	0.08723	11.464	0.11723	8.5302	10
11	1.3842	0.7224	0.07808	12.808	0.10808	9.2526	11
12	1.4258	0.7014	0.07046	14.192	0.10046	9.9540	12
13	1.4685	0.6810	0.06403	15.618	0.09403	10.6350	13
14	1.5126	0.6611	0.05853	17.086	0.08853	11.2961	14
15	1.5580	0.6419	0.05377	18.599	0.08377	11.9379	15
16	1.6047	0.6232	0.04961	20.157	0.07961	12.5611	16
17	1.6528	0.6050	0.04595	21.762	0.07595	13.1661	17
18	1.7024	0.5874	0.04271	23.414	0.07271	13.7535	18
19	1.7535	0.5703	0.03981	25.117	0.06981	14.3238	19
20	1.8061	0.5537	0.03722	26.870	0.06722	14.8775	20

ALIRAN TUNAI DISKRET  
4 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0400		0.9615	1.00000		
2	1.0816	0.9246	0.49020	2.040	0.53020	1.8861	2
3	1.1249	0.8890	0.32035	3.122	0.36035	2.7751	3
4	1.1699	0.8548	0.23549	4.246	0.27549	3.6299	4
5	1.2167	0.8219	0.18463	5.416	0.22463	4.4518	5
6	1.2653	0.7903	0.15076	6.633	0.19076	5.2421	6
7	1.3159	0.7599	0.12661	7.898	0.16661	6.0021	7
8	1.3686	0.7307	0.10853	9.214	0.14853	6.7327	8
9	1.4233	0.7026	0.09449	10.583	0.13449	7.4353	9
10	1.4802	0.6756	0.08329	12.006	0.12329	8.1109	10
11	1.5395	0.6496	0.07415	13.486	0.11415	8.7605	11
12	1.6010	0.6246	0.06655	15.026	0.10655	9.3851	12
13	1.6651	0.6006	0.06014	16.627	0.10014	9.9856	13
14	1.7317	0.5775	0.05467	18.292	0.09467	10.5631	14
15	1.8009	0.5553	0.04994	20.024	0.08994	11.1184	15
16	1.8730	0.5339	0.04582	21.825	0.08582	11.6523	16
17	1.9479	0.5134	0.04220	23.698	0.08220	12.1657	17
18	2.0258	0.4936	0.03899	25.645	0.07899	12.6593	18
19	2.1068	0.4746	0.03614	27.671	0.07614	13.1339	19
20	2.1911	0.4564	0.03358	29.778	0.07358	13.5903	20

ALIRAN TUNAI DISKRET  
5 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0500		0.9524	1.00000		
2	1.1025	0.9070	0.48780	2.050	0.53780	1.8594	2
3	1.1576	0.8638	0.31721	3.153	0.36721	2.7232	3
4	1.2155	0.8227	0.23201	4.310	0.28201	3.5460	4
5	1.2763	0.7835	0.18097	5.526	0.23097	4.3295	5
6	1.3401	0.7462	0.14702	6.802	0.19702	5.0757	6
7	1.4071	0.7107	0.12282	8.142	0.17282	5.7864	7
8	1.4775	0.6768	0.10472	9.549	0.15472	6.4632	8
9	1.5513	0.6446	0.09069	11.027	0.14069	7.1078	9
10	1.6289	0.6139	0.07950	12.578	0.12950	7.7217	10
11	1.7103	0.5847	0.07039	14.207	0.12039	8.3064	11
12	1.7959	0.5568	0.06283	15.917	0.11283	8.8633	12
13	1.8856	0.5303	0.05646	17.713	0.10646	9.3936	13
14	1.9799	0.5051	0.05102	19.599	0.10102	9.8986	14
15	2.0789	0.4810	0.04634	21.579	0.09634	10.3797	15
16	2.1829	0.4581	0.04227	23.657	0.09227	10.8378	16
17	2.2920	0.4363	0.03870	25.840	0.08870	11.2741	17
18	2.4066	0.4155	0.03555	28.132	0.08555	11.6896	18
19	2.5270	0.3957	0.03275	30.539	0.08275	12.0853	19
20	2.6533	0.3769	0.03024	33.066	0.08024	12.4622	20

ALIRAN TUNAI DISKRET  
6 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0600		0.9434	1.00000		
2	1.1236	0.8900	0.48544	2.060	0.54544	1.8334	2
3	1.1910	0.8396	0.31411	3.184	0.37411	2.6730	3
4	1.2625	0.7921	0.22859	4.375	0.28859	3.4651	4
5	1.3382	0.7473	0.17740	5.637	0.23740	4.2124	5
6	1.4185	0.7050	0.14336	6.975	0.20336	4.9173	6
7	1.5036	0.6651	0.11914	8.394	0.17914	5.5824	7
8	1.5938	0.6274	0.10104	9.897	0.16104	6.2098	8
9	1.6895	0.5919	0.08702	11.491	0.14702	6.8017	9
10	1.7908	0.5584	0.07587	13.181	0.13587	7.3601	10
11	1.8983	0.5268	0.06679	14.972	0.12679	7.8869	11
12	2.0122	0.4970	0.05928	16.870	0.11928	8.3838	12
13	2.1329	0.4688	0.05296	18.882	0.11296	8.8527	13
14	2.2609	0.4423	0.04758	21.015	0.10758	9.2950	14
15	2.3966	0.4173	0.04296	23.276	0.10296	9.7122	15
16	2.5404	0.3936	0.03895	25.673	0.09895	10.1059	16
17	2.6928	0.3714	0.03544	28.213	0.09544	10.4773	17
18	2.8543	0.3503	0.03236	30.906	0.09236	10.8276	18
19	3.0256	0.3305	0.02962	33.760	0.08962	11.1581	19
20	3.2071	0.3118	0.02718	36.786	0.08718	11.4699	20

**ALIRAN TUNAI DISKRET**  
**7 % FAKTOR FAEDAH KOMPAUN DISKRET**

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0700		0.9346	1.00000		
2	1.1449	0.8734	0.48309	2.070	0.55309	1.8080	2
3	1.2250	0.8163	0.31105	3.215	0.38105	2.6243	3
4	1.3108	0.7629	0.22523	4.440	0.29523	3.3872	4
5	1.4026	0.7130	0.17389	5.751	0.24389	4.1002	5
6	1.5007	0.6663	0.13980	7.153	0.20980	4.7665	6
7	1.6058	0.6227	0.11555	8.654	0.18555	5.3893	7
8	1.7182	0.5820	0.09747	10.260	0.16747	5.9713	8
9	1.8385	0.5439	0.08349	11.978	0.15349	6.5152	9
10	1.9672	0.5083	0.07238	13.816	0.14238	7.0236	10
11	2.1049	0.4751	0.06336	15.784	0.13336	7.4987	11
12	2.2522	0.4440	0.05590	17.888	0.12590	7.9427	12
13	2.4098	0.4150	0.04965	20.141	0.11965	8.3577	13
14	2.5785	0.3878	0.04434	22.550	0.11434	8.7455	14
15	2.7590	0.3624	0.03979	25.129	0.10979	9.1079	15
16	2.9522	0.3387	0.03586	27.888	0.10586	9.4466	16
17	3.1588	0.3166	0.03243	30.840	0.10243	9.7632	17
18	3.3799	0.2959	0.02941	33.999	0.09941	10.0591	18
19	3.6165	0.2765	0.02675	37.379	0.09675	10.3356	19
20	3.8697	0.2584	0.02439	40.995	0.09439	10.5940	20

**ALIRAN TUNAI DISKRET**  
**8 % FAKTOR FAEDAH KOMPAUN DISKRET**

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0800		0.9259	1.00000		
2	1.1664	0.8573	0.48077	2.080	0.56077	1.7833	2
3	1.2597	0.7938	0.30803	3.246	0.38803	2.5771	3
4	1.3605	0.7350	0.22192	4.506	0.30192	3.3121	4
5	1.4693	0.6806	0.17046	5.867	0.25046	3.9927	5
6	1.5869	0.6302	0.13632	7.336	0.21632	4.6229	6
7	1.7138	0.5835	0.11207	8.923	0.19207	5.2064	7
8	1.8509	0.5403	0.09401	10.637	0.17401	5.7466	8
9	1.9990	0.5002	0.08008	12.488	0.16008	6.2469	9
10	2.1589	0.4632	0.06903	14.487	0.14903	6.7101	10
11	2.3316	0.4289	0.06008	16.645	0.14008	7.1390	11
12	2.5182	0.3971	0.05270	18.977	0.13270	7.5361	12
13	2.7196	0.3677	0.04652	21.495	0.12652	7.9038	13
14	2.9372	0.3405	0.04130	24.215	0.12130	8.2442	14
15	3.1722	0.3152	0.03683	27.152	0.11683	8.5595	15
16	3.4259	0.2919	0.03298	30.324	0.11298	8.8514	16
17	3.7000	0.2703	0.02963	33.750	0.10963	9.1216	17
18	3.9960	0.2502	0.02670	37.450	0.10670	9.3719	18
19	4.3157	0.2317	0.02413	41.446	0.10413	9.6036	19
20	4.6610	0.2145	0.02185	45.762	0.10185	9.8181	20

ALIRAN TUNAI DISKRET  
9 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.0900		0.9174	1.00000		
2	1.1881	0.8417	0.47847	2.090	0.56847	1.7591	2
3	1.2950	0.7722	0.30505	3.278	0.39505	2.5313	3
4	1.4116	0.7084	0.21867	4.573	0.30867	3.2397	4
5	1.5386	0.6499	0.16709	5.985	0.25709	3.8897	5
6	1.6771	0.5963	0.13292	7.523	0.22292	4.4859	6
7	1.8280	0.5470	0.10869	9.200	0.19869	5.0330	7
8	1.9926	0.5019	0.09067	11.028	0.18067	5.5348	8
9	2.1719	0.4604	0.07680	13.021	0.16680	5.9952	9
10	2.3674	0.4224	0.06582	15.193	0.15582	6.4177	10
11	2.5804	0.3875	0.05695	17.560	0.14695	6.8052	11
12	2.8127	0.3555	0.04965	20.141	0.13965	7.1607	12
13	3.0658	0.3262	0.04357	22.953	0.13357	7.4869	13
14	3.3417	0.2992	0.03843	26.019	0.12843	7.7862	14
15	3.6425	0.2745	0.03406	29.361	0.12406	8.0607	15
16	3.9703	0.2519	0.03030	33.003	0.12030	8.3126	16
17	4.3276	0.2311	0.02705	36.974	0.11705	8.5436	17
18	4.7171	0.2120	0.02421	41.301	0.11421	8.7556	18
19	5.1417	0.1945	0.02173	46.018	0.11173	8.9501	19
20	5.6044	0.1784	0.01955	51.160	0.10955	9.1285	20

ALIRAN TUNAI DISKRET  
10 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1000		0.9091	1.00000		
2	1.2100	0.8264	0.47619	2.100	0.57619	1.7355	2
3	1.3310	0.7513	0.30211	3.310	0.40211	2.4869	3
4	1.4641	0.6830	0.21547	4.641	0.31547	3.1699	4
5	1.6105	0.6209	0.16380	6.105	0.26380	3.7908	5
6	1.7716	0.5645	0.12961	7.716	0.22961	4.3553	6
7	1.9487	0.5132	0.10541	9.487	0.20541	4.8684	7
8	2.1436	0.4665	0.08744	11.436	0.18744	5.3349	8
9	2.3579	0.4241	0.07364	13.579	0.17364	5.7590	9
10	2.5937	0.3855	0.06275	15.937	0.16275	6.1446	10
11	2.8531	0.3505	0.05396	18.531	0.15396	6.4951	11
12	3.1384	0.3186	0.04676	21.384	0.14676	6.8137	12
13	3.4523	0.2897	0.04078	24.523	0.14078	7.1034	13
14	3.7975	0.2633	0.03575	27.975	0.13575	7.3667	14
15	4.1772	0.2394	0.03147	31.772	0.13147	7.6061	15
16	4.5950	0.2176	0.02782	35.950	0.12782	7.8237	16
17	5.0545	0.1978	0.02466	40.545	0.12466	8.0216	17
18	5.5599	0.1799	0.02193	45.599	0.12193	8.2014	18
19	6.1159	0.1635	0.01955	51.159	0.11955	8.3649	19
20	6.7275	0.1486	0.01746	57.275	0.11746	8.5136	20



ALIRAN TUNAI DISKRET  
11 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1100		0.9009	1.00000		
2	1.2321	0.8116	0.47393	2.110	0.58393	1.7125	2
3	1.3676	0.7312	0.29921	3.342	0.40921	2.4437	3
4	1.5181	0.6587	0.21233	4.710	0.32233	3.1024	4
5	1.6851	0.5935	0.16057	6.228	0.27057	3.6959	5
6	1.8704	0.5346	0.12638	7.913	0.23638	4.2305	6
7	2.0762	0.4817	0.10222	9.783	0.21222	4.7122	7
8	2.3045	0.4339	0.08432	11.859	0.19432	5.1461	8
9	2.5580	0.3909	0.07060	14.164	0.18060	5.5370	9
10	2.8394	0.3522	0.05980	16.722	0.16980	5.8892	10
11	3.1518	0.3173	0.05112	19.561	0.16112	6.2065	11
12	3.4985	0.2858	0.04403	22.713	0.15403	6.4924	12
13	3.8833	0.2575	0.03815	26.212	0.14815	6.7499	13
14	4.3104	0.2320	0.03323	30.095	0.14323	6.9819	14
15	4.7846	0.2090	0.02907	34.405	0.13907	7.1909	15
16	5.3109	0.1883	0.02552	39.190	0.13552	7.3792	16
17	5.8951	0.1696	0.02247	44.501	0.13247	7.5488	17
18	6.5436	0.1528	0.01984	50.396	0.12984	7.7016	18
19	7.2633	0.1377	0.01756	56.939	0.12756	7.8393	19
20	8.0623	0.1240	0.01558	64.203	0.12558	7.9633	20

ALIRAN TUNAI DISKRET  
12 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1200		0.8929	1.00000		
2	1.2544	0.7972	0.47170	2.120	0.59170	1.6901	2
3	1.4049	0.7118	0.29635	3.374	0.41635	2.4018	3
4	1.5735	0.6355	0.20923	4.779	0.32923	3.0373	4
5	1.7623	0.5674	0.15741	6.353	0.27741	3.6048	5
6	1.9738	0.5066	0.12323	8.115	0.24323	4.1114	6
7	2.2107	0.4523	0.09912	10.089	0.21912	4.5638	7
8	2.4760	0.4039	0.08130	12.300	0.20130	4.9676	8
9	2.7731	0.3606	0.06768	14.776	0.18768	5.3282	9
10	3.1058	0.3220	0.05698	17.549	0.17698	5.6502	10
11	3.4785	0.2875	0.04842	20.655	0.16842	5.9377	11
12	3.8960	0.2567	0.04144	24.133	0.16144	6.1944	12
13	4.3635	0.2292	0.03568	28.029	0.15568	6.4235	13
14	4.8871	0.2046	0.03087	32.393	0.15087	6.6282	14
15	5.4736	0.1827	0.02682	37.280	0.14682	6.8109	15
16	6.1304	0.1631	0.02339	42.753	0.14339	6.9740	16
17	6.8660	0.1456	0.02046	48.884	0.14046	7.1196	17
18	7.6900	0.1300	0.01794	55.750	0.13794	7.2497	18
19	8.6128	0.1161	0.01576	63.440	0.13576	7.3658	19
20	9.6463	0.1037	0.01388	72.052	0.13388	7.4694	20

ALIRAN TUNAI DISKRET  
13 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1300		0.8850	1.00000		
2	1.2769	0.7831	0.46948	2.130	0.59948	1.6681	2
3	1.4429	0.6931	0.29352	3.407	0.42352	2.3612	3
4	1.6305	0.6133	0.20619	4.850	0.33619	2.9745	4
5	1.8424	0.5428	0.15431	6.480	0.28431	3.5172	5
6	2.0820	0.4803	0.12015	8.323	0.25015	3.9975	6
7	2.3526	0.4251	0.09611	10.405	0.22611	4.4226	7
8	2.6584	0.3762	0.07839	12.757	0.20839	4.7988	8
9	3.0040	0.3329	0.06487	15.416	0.19487	5.1317	9
10	3.3946	0.2946	0.05429	18.420	0.18429	5.4262	10
11	3.8359	0.2607	0.04584	21.814	0.17584	5.6869	11
12	4.3345	0.2307	0.03899	25.650	0.16899	5.9176	12
13	4.8980	0.2042	0.03335	29.985	0.16335	6.1218	13
14	5.5348	0.1807	0.02867	34.883	0.15867	6.3025	14
15	6.2543	0.1599	0.02474	40.417	0.15474	6.4624	15
16	7.0673	0.1415	0.02143	46.672	0.15143	6.6039	16
17	7.9861	0.1252	0.01861	53.739	0.14861	6.7291	17
18	9.0243	0.1108	0.01620	61.725	0.14620	6.8399	18
19	10.1974	0.0981	0.01413	70.749	0.14413	6.9380	19
20	11.5231	0.0868	0.01235	80.947	0.14235	7.0248	20

ALIRAN TUNAI DISKRET  
14 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1400		0.8772	1.00000		
2	1.2996	0.7695	0.46729	2.140	0.60729	1.6467	2
3	1.4815	0.6750	0.29073	3.440	0.43073	2.3216	3
4	1.6890	0.5921	0.20320	4.921	0.34320	2.9137	4
5	1.9254	0.5194	0.15128	6.610	0.29128	3.4331	5
6	2.1950	0.4556	0.11716	8.536	0.25716	3.8887	6
7	2.5023	0.3996	0.09319	10.730	0.23319	4.2883	7
8	2.8526	0.3506	0.07557	13.233	0.21557	4.6389	8
9	3.2519	0.3075	0.06217	16.085	0.20217	4.9464	9
10	3.7072	0.2697	0.05171	19.337	0.19171	5.2161	10
11	4.2262	0.2366	0.04339	23.045	0.18339	5.4527	11
12	4.8179	0.2076	0.03667	27.271	0.17667	5.6603	12
13	5.4924	0.1821	0.03116	32.089	0.17116	5.8424	13
14	6.2613	0.1597	0.02661	37.581	0.16661	6.0021	14
15	7.1379	0.1401	0.02281	43.842	0.16281	6.1422	15
16	8.1372	0.1229	0.01962	50.980	0.15962	6.2651	16
17	9.2765	0.1078	0.01692	59.118	0.15692	6.3729	17
18	10.5752	0.0946	0.01462	68.394	0.15462	6.4674	18
19	12.0557	0.0829	0.01266	78.969	0.15266	6.5504	19
20	13.7435	0.0728	0.01099	91.025	0.15099	6.6231	20

ALIRAN TUNAI DISKRET  
15 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1500		0.8696	1.00000		
2	1.3225	0.7561	0.46512	2.150	0.61512	1.6257	2
3	1.5209	0.6575	0.28798	3.472	0.43798	2.2832	3
4	1.7490	0.5718	0.20027	4.993	0.35027	2.8550	4
5	2.0114	0.4972	0.14832	6.742	0.29832	3.3522	5
6	2.3131	0.4323	0.11424	8.754	0.26424	3.7845	6
7	2.6600	0.3759	0.09036	11.067	0.24036	4.1604	7
8	3.0590	0.3269	0.07285	13.727	0.22285	4.4873	8
9	3.5179	0.2843	0.05957	16.786	0.20957	4.7716	9
10	4.0456	0.2472	0.04925	20.304	0.19925	5.0188	10
11	4.6524	0.2149	0.04107	24.349	0.19107	5.2337	11
12	5.3503	0.1869	0.03448	29.002	0.18448	5.4206	12
13	6.1528	0.1625	0.02911	34.352	0.17911	5.5831	13
14	7.0757	0.1413	0.02469	40.505	0.17469	5.7245	14
15	8.1371	0.1229	0.02102	47.580	0.17102	5.8474	15
16	9.3576	0.1069	0.01795	55.717	0.16795	5.9542	16
17	10.7613	0.0929	0.01537	65.075	0.16537	6.0472	17
18	12.3755	0.0808	0.01319	75.836	0.16319	6.1280	18
19	14.2318	0.0703	0.01134	88.212	0.16134	6.1982	19
20	16.3665	0.0611	0.00976	102.444	0.15976	6.2593	20

ALIRAN TUNAI DISKRET  
16 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1600		0.8621	1.00000		
2	1.3456	0.7432	0.46296	2.160	0.62296	1.6052	2
3	1.5609	0.6407	0.28526	3.506	0.44526	2.2459	3
4	1.8106	0.5523	0.19738	5.066	0.35738	2.7982	4
5	2.1003	0.4761	0.14541	6.877	0.30541	3.2743	5
6	2.4364	0.4104	0.11139	8.977	0.27139	3.6847	6
7	2.8262	0.3538	0.08761	11.414	0.24761	4.0386	7
8	3.2784	0.3050	0.07022	14.240	0.23022	4.3436	8
9	3.8030	0.2630	0.05708	17.519	0.21708	4.6065	9
10	4.4114	0.2267	0.04690	21.321	0.20690	4.8332	10
11	5.1173	0.1954	0.03886	25.733	0.19886	5.0286	11
12	5.9360	0.1685	0.03241	30.850	0.19241	5.1971	12
13	6.8858	0.1452	0.02718	36.786	0.18718	5.3423	13
14	7.9875	0.1252	0.02290	43.672	0.18290	5.4675	14
15	9.2655	0.1079	0.01936	51.660	0.17936	5.5755	15
16	10.7480	0.0930	0.01641	60.925	0.17641	5.6685	16
17	12.4677	0.0802	0.01395	71.673	0.17395	5.7487	17
18	14.4625	0.0691	0.01188	84.141	0.17188	5.8178	18
19	16.7765	0.0596	0.01014	98.603	0.17014	5.8775	19
20	19.4608	0.0514	0.00867	115.380	0.16867	5.9288	20

ALIRAN TUNAI DISKRET  
17 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1700		0.8547	1.00000		
2	1.3689	0.7305	0.46083	2.170	0.63083	1.5852	2
3	1.6016	0.6244	0.28257	3.539	0.45257	2.2096	3
4	1.8739	0.5337	0.19453	5.141	0.36453	2.7432	4
5	2.1924	0.4561	0.14256	7.014	0.31256	3.1993	5
6	2.5652	0.3898	0.10861	9.207	0.27861	3.5892	6
7	3.0012	0.3332	0.08495	11.772	0.25495	3.9224	7
8	3.5115	0.2848	0.06769	14.773	0.23769	4.2072	8
9	4.1084	0.2434	0.05469	18.285	0.22469	4.4506	9
10	4.8068	0.2080	0.04466	22.393	0.21466	4.6586	10
11	5.6240	0.1778	0.03676	27.200	0.20676	4.8364	11
12	6.5801	0.1520	0.03047	32.824	0.20047	4.9884	12
13	7.6987	0.1299	0.02538	39.404	0.19538	5.1183	13
14	9.0075	0.1110	0.02123	47.103	0.19123	5.2293	14
15	10.5387	0.0949	0.01782	56.110	0.18782	5.3242	15
16	12.3303	0.0811	0.01500	66.649	0.18500	5.4053	16
17	14.4265	0.0693	0.01266	78.979	0.18266	5.4746	17
18	16.8790	0.0592	0.01071	93.406	0.18071	5.5339	18
19	19.7484	0.0506	0.00907	110.285	0.17907	5.5845	19
20	23.1056	0.0433	0.00769	130.033	0.17769	5.6278	20

ALIRAN TUNAI DISKRET  
18 % FAKTOR FAEDAH KOMPAUN DISKRET

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1800		0.8475	1.00000		
2	1.3924	0.7182	0.45872	2.180	0.63872	1.5656	2
3	1.6430	0.6086	0.27992	3.572	0.45992	2.1743	3
4	1.9388	0.5158	0.19174	5.215	0.37174	2.6901	4
5	2.2878	0.4371	0.13978	7.154	0.31978	3.1272	5
6	2.6996	0.3704	0.10591	9.442	0.28591	3.4976	6
7	3.1855	0.3139	0.08236	12.142	0.26236	3.8115	7
8	3.7589	0.2660	0.06524	15.327	0.24524	4.0776	8
9	4.4355	0.2255	0.05239	19.086	0.23239	4.3030	9
10	5.2338	0.1911	0.04251	23.521	0.22251	4.4941	10
11	6.1759	0.1619	0.03478	28.755	0.21478	4.6560	11
12	7.2876	0.1372	0.02863	34.931	0.20863	4.7932	12
13	8.5994	0.1163	0.02369	42.219	0.20369	4.9095	13
14	10.1472	0.0985	0.01968	50.818	0.19968	5.0081	14
15	11.9737	0.0835	0.01640	60.965	0.19640	5.0916	15
16	14.1290	0.0708	0.01371	72.939	0.19371	5.1624	16
17	16.6722	0.0600	0.01149	87.068	0.19149	5.2223	17
18	19.6733	0.0508	0.00964	103.740	0.18964	5.2732	18
19	23.2144	0.0431	0.00810	123.414	0.18810	5.3162	19
20	27.3930	0.0365	0.00682	146.628	0.18682	5.3527	20

**ALIRAN TUNAI DISKRET**  
**19 % FAKTOR FAEDAH KOMPAUN DISKRET**

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.1900		0.8403	1.00000		
2	1.4161	0.7062	0.45662	2.190	0.64662	1.5465	2
3	1.6852	0.5934	0.27731	3.606	0.46731	2.1399	3
4	2.0053	0.4987	0.18899	5.291	0.37899	2.6386	4
5	2.3864	0.4190	0.13705	7.297	0.32705	3.0576	5
6	2.8398	0.3521	0.10327	9.683	0.29327	3.4098	6
7	3.3793	0.2959	0.07985	12.523	0.26985	3.7057	7
8	4.0214	0.2487	0.06289	15.902	0.25289	3.9544	8
9	4.7854	0.2090	0.05019	19.923	0.24019	4.1633	9
10	5.6947	0.1756	0.04047	24.709	0.23047	4.3389	10
11	6.7767	0.1476	0.03289	30.404	0.22289	4.4865	11
12	8.0642	0.1240	0.02690	37.180	0.21690	4.6105	12
13	9.5964	0.1042	0.02210	45.244	0.21210	4.7147	13
14	11.4198	0.0876	0.01823	54.841	0.20823	4.8023	14
15	13.5895	0.0736	0.01509	66.261	0.20509	4.8759	15
16	16.1715	0.0618	0.01252	79.850	0.20252	4.9377	16
17	19.2441	0.0520	0.01041	96.022	0.20041	4.9897	17
18	22.9005	0.0437	0.00868	115.266	0.19868	5.0333	18
19	27.2516	0.0367	0.00724	138.166	0.19724	5.0700	19
20	32.4294	0.0308	0.00605	165.418	0.19605	5.1009	20

**ALIRAN TUNAI DISKRET**  
**20 % FAKTOR FAEDAH KOMPAUN DISKRET**

N	SATU BAYARAN		MODAL LESAP A/F	BAYARAN SIRI SERAGAM		NOLAI KINI P/A	N
	AMAUN DIKOMPAUN F/P	NILAI KINI P/F		AMAUN DIKOMPAUN F/A	PEMULIHAN MODAL A/P		
	1	1.2000		0.8333	1.00000		
2	1.4400	0.6944	0.45455	2.200	0.65455	1.5278	2
3	1.7280	0.5787	0.27473	3.640	0.47473	2.1065	3
4	2.0736	0.4823	0.18629	5.368	0.38629	2.5887	4
5	2.4883	0.4019	0.13438	7.442	0.33438	2.9906	5
6	2.9860	0.3349	0.10071	9.930	0.30071	3.3255	6
7	3.5832	0.2791	0.07742	12.916	0.27742	3.6046	7
8	4.2998	0.2326	0.06061	16.499	0.26061	3.8372	8
9	5.1598	0.1938	0.04808	20.799	0.24808	4.0310	9
10	6.1917	0.1615	0.03852	25.959	0.23852	4.1925	10
11	7.4301	0.1346	0.03110	32.150	0.23110	4.3271	11
12	8.9161	0.1122	0.02526	39.581	0.22526	4.4392	12
13	10.6993	0.0935	0.02062	48.497	0.22062	4.5327	13
14	12.8392	0.0779	0.01689	59.196	0.21689	4.6106	14
15	15.4070	0.0649	0.01388	72.035	0.21388	4.6755	15
16	18.4884	0.0541	0.01144	87.442	0.21144	4.7296	16
17	22.1861	0.0451	0.00944	105.931	0.20944	4.7746	17
18	26.6233	0.0376	0.00781	128.117	0.20781	4.8122	18
19	31.9480	0.0313	0.00646	154.740	0.20646	4.8435	19
20	38.3376	0.0261	0.00536	186.688	0.20536	4.8696	20

LAMPIRAN: JADUAL FAEDAH

FAKTOR CERUN NILAI KINI (PIG)  
ALIRAN TUNAI DISKRET, PENGKOMPANAN DISKRET

[RUP 101]

N	1	2	3	4	5	6	7	8	9	10	11	12
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797
3	2.921	2.846	2.773	2.703	2.635	2.569	2.506	2.445	2.386	2.329	2.274	2.221
4	5.804	5.617	5.438	5.267	5.103	4.946	4.795	4.650	4.511	4.378	4.250	4.127
5	9.610	9.240	8.889	8.555	8.237	7.935	7.647	7.372	7.111	6.862	6.624	6.397
6	14.321	13.680	13.076	12.506	11.968	11.459	10.978	10.523	10.092	9.684	9.297	8.930
7	19.917	18.903	17.955	17.066	16.232	15.450	14.715	14.024	13.375	12.763	12.187	11.644
8	26.381	24.878	23.481	22.181	20.970	19.842	18.789	17.806	16.888	16.029	15.225	14.471
9	33.696	31.572	29.612	27.801	26.127	24.577	23.140	21.808	20.571	19.421	18.352	17.356
10	41.843	38.955	36.309	33.881	31.652	29.602	27.716	25.977	24.373	22.891	21.522	20.254
11	50.807	46.998	43.533	40.377	37.499	34.870	32.466	30.266	28.248	26.396	24.695	23.129
12	60.569	55.671	51.248	47.248	43.624	40.337	37.351	34.634	32.159	29.901	27.839	25.952
13	71.113	64.948	59.420	54.455	49.988	45.963	42.330	39.046	36.073	33.377	30.929	28.702
14	82.422	74.800	68.014	61.962	56.554	51.713	47.372	43.472	39.963	36.800	33.945	31.362
15	94.481	85.202	77.000	69.735	63.288	57.555	52.446	47.886	43.807	40.152	36.871	33.920
16	107.273	96.129	86.348	77.744	70.160	63.459	57.527	52.264	47.585	43.416	39.695	36.367
17	120.783	107.555	96.028	85.958	77.140	69.401	62.592	56.588	51.282	46.582	42.409	38.697
18	134.996	119.458	106.014	94.350	84.204	75.357	67.622	60.843	54.886	49.640	45.007	40.908
19	149.895	131.814	116.279	102.893	91.328	81.306	72.599	65.013	58.387	52.583	47.486	42.998
20	165.466	144.600	126.799	111.565	98.488	87.230	77.509	69.090	61.777	55.407	49.842	44.968

LAMPIRAN: JADUAL FAEDAH

FAKTOR CERUN NILAI KINI (P/G)  
ALIRAN TUNAI DISKRET, PENGKOMPANAN DISKRET

N	13	14	15	18	20	22	25	30	35	40	45	50
2	0.783	0.769	0.756	0.718	0.694	0.672	0.640	0.592	0.549	0.510	0.476	0.444
3	2.169	2.119	2.071	1.935	1.852	1.773	1.664	1.502	1.362	1.239	1.132	1.037
4	4.009	3.896	3.786	3.483	3.299	3.127	2.893	2.552	2.265	2.020	1.810	1.630
5	6.180	5.973	5.775	5.231	4.906	4.607	4.204	3.630	3.157	2.764	2.434	2.156
6	8.582	8.251	7.937	7.083	6.581	6.124	5.514	4.666	3.983	3.428	2.972	2.595
7	11.132	10.649	10.192	8.967	8.255	7.615	6.773	5.622	4.717	3.997	3.418	2.947
8	13.765	13.103	12.481	10.829	9.883	9.042	7.947	6.480	5.352	4.471	3.776	3.220
9	16.428	15.563	14.755	12.633	11.434	10.378	9.021	7.234	5.889	4.858	4.058	3.428
10	19.080	17.991	16.979	14.352	12.887	11.610	9.987	7.887	6.336	5.170	4.277	3.584
11	21.687	20.357	19.129	15.972	14.233	12.732	10.846	8.445	6.705	5.417	4.445	3.699
12	24.224	22.640	21.185	17.481	15.467	13.744	11.602	8.917	7.005	5.611	4.572	3.784
13	26.674	24.825	23.135	18.877	16.588	14.649	12.262	9.314	7.247	5.762	4.668	3.846
14	29.023	26.901	24.972	20.158	17.601	15.452	12.833	9.644	7.442	5.879	4.740	3.890
15	31.262	28.862	26.693	21.327	18.509	16.161	13.326	9.917	7.597	5.969	4.793	3.922
16	33.384	30.706	28.296	22.389	19.321	16.784	13.748	10.143	7.721	6.038	4.832	3.945
17	35.388	32.430	29.783	23.348	20.042	17.328	14.108	10.328	7.818	6.090	4.861	3.961
18	37.271	34.038	31.156	24.212	20.680	17.803	14.415	10.479	7.895	6.130	4.882	3.973
19	39.037	35.531	32.421	24.988	21.244	18.214	14.674	10.602	7.955	6.160	4.898	3.981
20	40.685	36.914	33.582	25.681	21.739	18.570	14.893	10.702	8.002	6.183	4.909	3.987

LAMPIRAN: JADUAL FAEDAH

FAKTOR CERUN NILAI TAHUNAN (AG)  
ALIRAN TUNAJ DISKRET, PENGKAMPAUNAN DISKRET

(Rup 101)

N	1	2	3	4	5	6	7	8	9	10	11	12
2	0.498	0.495	0.493	0.490	0.488	0.485	0.483	0.481	0.478	0.476	0.474	0.472
3	0.993	0.987	0.980	0.974	0.967	0.961	0.955	0.949	0.943	0.937	0.931	0.925
4	1.488	1.475	1.463	1.451	1.439	1.427	1.416	1.404	1.393	1.381	1.370	1.359
5	1.980	1.960	1.941	1.922	1.903	1.884	1.865	1.846	1.828	1.810	1.792	1.775
6	2.471	2.442	2.414	2.386	2.358	2.330	2.303	2.276	2.250	2.224	2.198	2.172
7	2.960	2.921	2.882	2.843	2.805	2.768	2.730	2.694	2.657	2.622	2.586	2.551
8	3.448	3.396	3.345	3.294	3.245	3.195	3.147	3.099	3.051	3.004	2.958	2.913
9	3.934	3.868	3.803	3.739	3.676	3.613	3.552	3.491	3.431	3.372	3.314	3.257
10	4.418	4.337	4.256	4.177	4.099	4.022	3.946	3.871	3.798	3.725	3.654	3.585
11	4.901	4.802	4.705	4.609	4.514	4.421	4.330	4.240	4.151	4.064	3.979	3.895
12	5.381	5.264	5.148	5.034	4.922	4.811	4.703	4.596	4.491	4.388	4.288	4.190
13	5.861	5.723	5.587	5.453	5.322	5.192	5.065	4.940	4.818	4.699	4.582	4.468
14	6.338	6.179	6.021	5.866	5.713	5.564	5.417	5.273	5.133	4.996	4.862	4.732
15	6.814	6.631	6.450	6.272	6.097	5.926	5.758	5.594	5.435	5.279	5.127	4.980
16	7.289	7.080	6.874	6.672	6.474	6.279	6.090	5.905	5.724	5.549	5.379	5.215
17	7.761	7.526	7.294	7.066	6.842	6.624	6.411	6.204	6.002	5.807	5.618	5.435
18	8.232	7.968	7.708	7.453	7.203	6.960	6.722	6.492	6.269	6.053	5.844	5.643
19	8.702	8.407	8.118	7.834	7.557	7.287	7.024	6.770	6.524	6.286	6.057	5.838
20	9.169	8.843	8.523	8.209	7.903	7.605	7.316	7.037	6.767	6.508	6.259	6.020



FAKTOR CERUN NILAI TAHUNAN (AG)  
ALIRAN TUNAI DISKRET, PENGKAMPAUNAN DISKRET

N	13	14	15	18	20	22	25	30	35	40	45	50
2	0.469	0.467	0.465	0.459	0.455	0.450	0.444	0.435	0.426	0.417	0.408	0.400
3	0.919	0.913	0.907	0.890	0.879	0.868	0.852	0.827	0.803	0.780	0.758	0.737
4	1.348	1.337	1.326	1.295	1.274	1.254	1.225	1.178	1.134	1.092	1.053	1.015
5	1.757	1.740	1.723	1.673	1.641	1.609	1.563	1.490	1.422	1.358	1.298	1.242
6	2.147	2.122	2.097	2.025	1.979	1.934	1.868	1.765	1.670	1.581	1.499	1.423
7	2.517	2.483	2.450	2.353	2.290	2.230	2.142	2.006	1.881	1.766	1.661	1.565
8	2.869	2.825	2.781	2.656	2.576	2.498	2.387	2.216	2.060	1.919	1.791	1.675
9	3.201	3.146	3.092	2.936	2.836	2.741	2.605	2.396	2.209	2.042	1.893	1.760
10	3.516	3.449	3.383	3.194	3.074	2.959	2.797	2.551	2.334	2.142	1.973	1.824
11	3.813	3.733	3.655	3.430	3.289	3.155	2.966	2.683	2.436	2.221	2.034	1.871
12	4.094	4.000	3.908	3.647	3.484	3.330	3.115	2.795	2.520	2.285	2.082	1.907
13	4.357	4.249	4.144	3.845	3.660	3.485	3.244	2.889	2.589	2.334	2.118	1.933
14	4.605	4.482	4.362	4.025	3.817	3.623	3.356	2.969	2.644	2.373	2.145	1.952
15	4.837	4.699	4.565	4.189	3.959	3.745	3.453	3.034	2.689	2.403	2.165	1.966
16	5.055	4.901	4.752	4.337	4.085	3.852	3.537	3.089	2.725	2.426	2.180	1.976
17	5.259	5.089	4.925	4.471	4.198	3.947	3.608	3.135	2.753	2.444	2.191	1.983
18	5.449	5.263	5.084	4.592	4.298	4.029	3.670	3.172	2.776	2.458	2.200	1.988
19	5.627	5.424	5.231	4.700	4.386	4.101	3.722	3.202	2.793	2.468	2.206	1.991
20	5.792	5.573	5.365	4.798	4.464	4.163	3.767	3.228	2.808	2.476	2.210	1.994

endixes

TABLE A - 34

PRESENT WORTH GRADIENT FACTORS (P/G)  
DISCRETE CASH FLOW, DISCRETE COMPOUNDING

	5%	30%	35%	40%	45%	50%	N
	0.840	0.592	0.549	0.510	0.476	0.444	2
	1.464	1.502	1.362	1.239	1.132	1.037	3
4	2.893	2.552	2.265	2.020	1.810	1.630	4
5	4.204	3.630	3.157	2.764	2.434	2.156	5
6	5.514	4.666	3.983	3.428	2.972	2.595	6
7	6.773	5.622	4.717	3.997	3.418	2.947	7
8	7.947	6.480	5.352	4.471	3.776	3.220	8
9	9.021	7.234	5.889	4.858	4.058	3.428	9
10	9.987	7.887	6.336	5.170	4.277	3.584	10
11	10.846	8.445	6.705	5.417	4.445	3.699	11
12	11.602	8.917	7.005	5.611	4.572	3.794	12
13	12.262	9.314	7.247	5.762	4.668	3.846	13
14	12.833	9.644	7.442	5.879	4.740	3.890	14
15	13.328	9.917	7.597	5.969	4.793	3.922	15
16	13.748	10.143	7.721	6.038	4.832	3.945	16
17	14.108	10.328	7.818	6.090	4.861	3.961	17
18	14.415	10.479	7.895	6.130	4.882	3.973	18
19	14.674	10.602	7.955	6.160	4.898	3.981	19
20	14.893	10.702	8.002	6.183	4.909	3.987	20
21	15.078	10.783	8.038	6.200	4.917	3.991	21
22	15.233	10.848	8.067	6.213	4.923	3.994	22
23	15.362	10.901	8.089	6.222	4.927	3.996	23
24	15.471	10.943	8.106	6.229	4.930	3.997	24
25	15.562	10.977	8.119	6.235	4.933	3.998	25
26	15.637	11.005	8.130	6.239	4.934	3.999	26
27	15.700	11.026	8.137	6.242	4.935	3.999	27
28	15.752	11.044	8.143	6.244	4.936	3.999	28
29	15.796	11.058	8.148	6.245	4.937	4.000	29
30	15.832	11.069	8.152	6.247	4.937	4.000	30
31	15.861	11.078	8.154	6.248	4.938	4.000	31
32	15.886	11.085	8.157	6.248	4.938	4.000	32
33	15.906	11.090	8.158	6.249	4.938	4.000	33
34	15.923	11.094	8.159	6.249	4.938	4.000	34
35	15.937	11.098	8.160	6.249	4.938	4.000	35
36	15.948	11.101	8.161	6.249	4.938	4.000	36
37	15.957	11.103	8.162	6.250	4.938	4.000	37
38	15.965	11.105	8.162	6.250	4.938	4.000	38
39	15.971	11.106	8.162	6.250	4.938	4.000	39
40	15.977	11.107	8.163	6.250	4.938	4.000	40
42	15.984	11.109	8.163	6.250	4.938	4.000	42
44	15.990	11.110	8.163	6.250	4.938	4.000	44
46	15.993	11.110	8.163	6.250	4.938	4.000	46
48	15.995	11.111	8.163	6.250	4.938	4.000	48
50	15.997	11.111	8.163	6.250	4.938	4.000	50

TABLE A - 26  
DISCRETE CASH FLOW  
30.00% DISCRETE COMPOUND INTEREST FACTORS

SINGLE PAYMENTS			UNIFORM SERIES PAYMENTS				
N	COMPOUND AMOUNT P/P	PRESENT WORTH P/P	SINKING FUND A/P	COMPOUND AMOUNT P/A	CAPITAL RECOVERY A/P	PRESENT WORTH P/A	N
1	1.3000	0.7692	1.0000	1.000	1.30000	0.7692	1
2	1.6910	0.5917	0.43474	2.300	0.73478	1.3609	2
3	2.1970	0.4552	0.25061	3.990	0.55063	1.8161	3
4	2.8561	0.3531	0.16163	6.187	0.46163	2.1662	4
5	3.7129	0.2691	0.11054	9.041	0.41054	2.4356	5
6	4.8252	0.2072	0.07919	12.756	0.37919	2.6427	6
7	6.2741	0.1594	0.05647	17.583	0.35647	2.8021	7
8	8.1573	0.1226	0.04142	23.858	0.34142	2.9247	8
9	10.6045	0.0941	0.03129	32.015	0.33124	3.0190	9
10	13.7954	0.0725	0.02346	42.619	0.32346	3.0915	10
11	17.9216	0.0558	0.01773	56.405	0.31773	3.1473	11
12	23.2941	0.0429	0.01345	74.327	0.31345	3.1903	12
13	30.2975	0.0330	0.01024	97.625	0.31024	3.2233	13
14	39.3718	0.0254	0.00792	127.913	0.30792	3.2487	14
15	51.1957	0.0195	0.00598	167.286	0.30594	3.2682	15
16	66.5417	0.0150	0.00458	214.872	0.30458	3.2832	16
17	86.5042	0.0116	0.00351	285.014	0.30351	3.2948	17
18	112.4558	0.0089	0.00267	371.518	0.30269	3.3037	18
19	146.1327	0.0066	0.00207	481.971	0.30207	3.3105	19
20	190.0476	0.0051	0.00157	610.165	0.30159	3.3158	20
22	321.1419	0.0031	0.00094	1057.280	0.30094	3.3230	22
24	542.8008	0.0019	0.00055	1876.001	0.30055	3.3272	24
25	705.6410	0.0014	0.00043	2344.803	0.30043	3.3286	25
26	917.3111	0.0011	0.00033	3054.444	0.30033	3.3297	26
28	1550.271	0.00076	0.00023	5184.311	0.30019	3.3312	28
30	2619.946	0.00054	0.00017	8729.985	0.30011	3.3321	30
32	4427.791	0.00037	0.00012	14755.975	0.30007	3.3326	32
34	7442.370	0.00026	0.00008	24919.899	0.30004	3.3329	34
35	9727.467	0.00021	0.00006	32422.864	0.30003	3.3330	35