Eastern University, Sri Lanka

Faculty of Commerce and Management

Final Year Repeat Examination in Business Administration/Commerce

(Specialization in Enterprise Development) - 2008/2009(Feb'2010)

MGT 4144 - Financial Management

Answer All Questions

Time Allowed: 03 Hours

Non Programmable Calculators are permitted. Use tables attached.

1. The comparative financial statements of AMC plc for financial year ending 31st December 2009 are given below:

Balance sheet as at 31st of December 2009

Liabilities	Rs.
Equity and Liabilities	
Share Capital and Reserves	200,000
10% Long term Mortgage Loan	100,000
Short term Loans from bank	50,000
Creditors	50,000
HER EXPENSE ACCURAGE PROPERTY . 1800 DENETY	400,000
Assets	State of the Selection
Land and Buildings, Furniture etc.(net)	200,000
Stocks	120,000
Debtors	50,000
Cash & Bank	30,000
polyolot site	400,000

The Income Statement for the year ended 31st of December 2009

and the second test second	Rs.
Sales	500,000
Cost of sales	300,000
Gross profit	200,000
Operating expenses	110,000
Profit before interest and taxes	90,000
Interest on long-term loan	10,000
Profit before tax	80,000
Taxes	30,000
Profit after tax	50,000

Required:

Comment on the financial performance of the company for the year ending 31st of December 2009 using relevant financial ratios. (25 Marks)

- 02. (a) Find the present value of Rs.10,000 receivable after 5 years if the rate of discount is 10%
 - (b) A finance company advertises that it will pay 10% interest annually for a 5 year fixed dept if Rs.100,000 is deposited now. Find the value of the deposit at the end of 5th year.
 - (c) A Rs.1000 par value bond bearing a coupon rate of 12% will mature after 5 years. What the value of the bond today, if the discount rate is 15%?

(25 Mari

03. The following data are extracted from the financial statements of a company:

Sales (100,000 units @ Rs.10)	10,00,000
Variable Costs	5,00,000
Contribution	5,00,000
Fixed Cost	3,00,000
Net Profit	2,00,000

Required:

- (a) Calculate the following:
 - (i) P/V ratio
 - (ii) Break Even Point
 - (iii) Margin of safety
- (b) If the price increases by 20 percent, what shall be the new P/V ratio and Break Ev Point?
- (c) If the price increase by 20 percent is accompanied by a reduction in volume by percent, what shall be the effect on the Break Even Point and Profit?

(25 Mark

A firm is considering two mutually exclusive investments, Project A and Project B. The expected cash flows of these projects are as follows:

WOOR	Cash flows (Rs.000)										
year	Project A	Project B									
0	(1000)	(1000)									
1	300	1000									
2	400	500									
3	900	100									

Cost of capital is 10%

Required:

- (i) Calculate the NPV for each of the projects.
- (ii) What is the IRR of each project?
- (iii) Which project would you choose?

(25 Marks)

Present Value and Future Value Tables

Table A-1 Future Value Interest Factors for One Dollar Compounded at k Percent for n Periods: FVIF kn = (1 + k)*

Period	E-12-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	F- Care CIVI	100.222	Acabic Street	1 2000000000	77176	L. C.		T-00-11-0-11-0-11-0-11-0-11-0-11-0-11-0	-	aglatic annual supplier			-					
rendo	1%	2%	3%	496	可能	8%	-	8%	9%	10%	11%	12%	13%	14%	18%	(S)	20%	24%	28%
	1.0100	1.0200	1.0300	1.0400	1.0500	1.0600	1.0700	1.0800	1.0900	1.1008	1.1100	1,1200	1.1300	1.1400	1.1500	1.1600	1.2000	1,2400	1,2800
	1.0261	1.0404	1.0600	1.0816	1.1025	1.1236	1.1449	1.1664	1.1881	1.2100	1.2321	1.2844	1.2769	1.2996	1.3225	1,3455	1.4400	1.5376	1.5625
4	1.0303	1.0612	1.0927	1.1249	1.1876	1,1910	1.2250	1.2597	1.2950	1,3310	1.3676	1,4049	1.4428	1,4815	1.5209	1.5608	1.7280	1.9668	1.9531
	1.0404	1.0824	1.1256	1.1699	1.2155	1.2625	1.3108	1.3405	1,4118	1,4641	1.5181	1.8738	1.6308	1.6889	1.7499	1.8106	2.0736	2.3842	2.4414
	1.0519	1,1041	1.1593	1,2167	1.2763	1.3382	1.4828	1.4893	1.5386	1.6105	1.6851	1.7623	1.8424	1.9254	2.0114	2.1003	2.4883	2,9316	3,0618
	4 0000	4 4000		-															
7	1.0815	1.1262	1.1941	1.2853	1.3461	1.4185	1.5007	1.5889	1.6771	1.7715	1.8704	1.9738	2.0820	2.1950	2.3131	2.4384	2.9868	3.6362	3.8147
8	1.0721	1.1457	1,2299	1.3189	1.4071	1.5036	1,6058	1.7138	1.8280	1.9487	2.0762	2.2107	2,3526	2.5023	2.6600	2.5262	3.5832	4.5077	4,7884
9.2	1.0829	1,1757	1.2668	1.3688	1.4775	1.5938	1.7182	1.8509	1,9926	2.1438	2.3945	2.4760	2.8584	2.8526	3.0890	3.2784	4.2998	6.5895	5.9505
The Party of the P	1.0937	1.1981	1.3048	1.4233	1.5613	1.6898	1.8385	1.9990	2.1719	2,3579	2.5580	2.7731	3.0040	3.2519	3.5179	3.8030	5.1598	6.9310	7.4505
10	1.1048	1,2180	1.3439	1.4802	1.6289	1.7908	1.9672	2.1689	2.3674	2.5937	2.8384	3.1068	3,3946	3.7072	4.0486	4.4114	6.1917	8.5944	9.3132
		-		-								The second	V - 1/1/2/2018						
11	1.1157	1.2434	1.3842	1.8396	1.7103	1.8983	2.1049	2.3316	2.6804	2.8631	3,1518	3.4786	2.8389	4.2262	4.0824	5,1173	7,4301	10,687	11.642
42	1.1268	1.2682	1.4268	1.6010	1.7959	2.0122	2.2822	2,5182	2.8127	3.1384	3,4985	3,8989	4.3345	4.8179	6.3503	6.9360	8.9161	13,215	14.552
13	1,1381	1.2938	1.4685	1.6651	1,8886	2.1329	2,4095	2.7198	3.0868	3,4523	3.8833	4.3835	4,8880	6,4924	6.1526	6,8868	10,699	16.386	18,190
16	1,1495	1.3195	1.5128	1.7317	1.9799	2.2600	2.5785	2.9372	3.3417	3.7976	4.3104	4.8871	6.5348	6.2613	7.0757	7.9676	12,839	20,319	22.737
48	1.1610	1.3469	1.5580	1.8808	2.0789	2,3968	2.7590	3.1722	3,6426	4.1772	4.7846	5,4736	6.2543	7.1379	8,1371	8.2655	15.407	25,196	28,422
TE																10000	102797	20.100	BUTTER
16	1.1726	1.3728	1,5947	1.8730	2.1829	2.6404	2.9522	3.4259	3.9793	4,6950	5.3100	5.1304	7.0673	8,1372	9.3576	10,748	18,488	31,243	35.527
17	1.1843	1,4002	1.6528	1.8478	2.2920	2.6928	3.1588	3.7000	4.3276	5.0845	5.0981	6,8660	7.9861	9,2765	10,761	12,468	22,188	38,741	44.409
18	1,1961	1,4282	1.7024	2.0258	2,4566	2.8843	3.3798	3,9980	4.7171	5.5599	0.8436	7,6900	9.0243	10.576	12.376	14,483	26.623	48,039	86.811
19	1.2081	1.4568	1.7835	2.1068	2,5270	3.0256	3.6165	4.3157	8.1417	6.1169	7.2833	8.6128	10,197	12.086	14.232	16,777	31.948	59,588	89.389
20	1,2202	1,4859	1.8881	2.1911	2,6533	3.2071	3.8697	4.8610	5.6044	6.7275	8.0623	9.6453	11.523	13.743	16.367	19,461	38.338	73.864	86.736
	and the same of th																	70.044	00.100
21	1.2324	1.5167	1.8893	2.2788	2.7860	3,3998	4.1406	5.0338	6.1088	7,4002	8.9492	10.804	13.021	18,668	10.622	22.574	46,085	91,592	108,420
22	1.2447	1,8480	1.9161	2.3699	2.9253	3.6035	4.4304	8,4365	6.6586	8.1403	9.9336	12,100	14.714	17.861	21,645	28,186	58.206	113.574	135,525
23	1.2572	1,5769	1.9736	2.4647	3.0716	3.8197	4.7405	5.8716	7.2579	8.9543	11.028	13,552	16.827	20,362	24.891	30,376	66,247	140,831	169,407
14	1.2697	1.6084	2.0320	2.5532	3.2251	4.0489	5.0724	5.3412	7.9111	9.8497	12,239	18,179	18,788	23,212	28,625	35.236	79,497	174.631	211.758
25	1.2824	1.6408	2.0938	2.8556	3.3864	4.2919	5.4274	6.8485	3.6231	10,635	13.585	17,000	21,231	28,482	32,019	40.874	95,398	216.542	284.698
10.4		A. S.			N. Commission									L-TUX		70.074	40.080	210.042	A07.000
30	1.3478	1.8114	2.4273	3.2434	4.3219	5.7436	7.6123	10.063	13,268	17,449	22.892	29,960	39,116	59,950	68,212	85.850	237.376	634,820	807.794
4.2	1,4168	1,9999	2.8139	3.9461	6.6160	7.6881	10.877	14.788	20.414	28,102	38,575	52,800	72.069	88,100	123,176	180.314	590.66B	4	4
30	1.4398	2.0399	2.8963	4.1039	6,7918	8,1473	11.424	15.968	22.281	30,913	42,818	59.136	81.437	111.834	163,152	209,164	708,802		
40	1.4889	2.2080	3.2620	4.8010	7,0400	10,288	14.974	21.726	31,408	45,259	65,001	93,051	132.782	188,884	267.864	378,721	706.602		
60	1.8446	2.6916	4.3839	7.1067	11,467	18.420	29,457	46.902	74.358	117,391	184.568	289,002	460.736	700,233	400.103	2 2 2 2 2 2			
Designation of the				-				-	-	11.00	12.1000	100,007	104.704	1047599	-	-			

Table A-2 Future Value Interest Factors for a One-Dollar Annuity Compouned at & Percent for n Periods: FVIFA k.n = [(1 + k)] - 1]/k

Bartile A.M.	A COURT OF THE PARTY OF THE PAR	NASC CONTRACTOR	- AL 1 (V) 0	CO A CONTRACTOR	-			-	·								NAME OF TAXABLE PARTY.			NEW Y
Pariod	1%	2%	3%	4%	8%	5%	7%	37 874 ×	9%	10%	11%	12%	13%	1896	15%	18%	20%	24%	28%	A la
di D	1,6000	1.0200	1.0300	1.0400	1.0800	1.0800	1.0700	1.0800	1.0906	1.1000	1.1100	1,1200	1.1300	1.1400	1.1500	1.1800	1.2000	1.2400	1.2500	
3	2.0100	2.0200	2,0300	2.0400	2.0500	2.0600	2.0700	2.0800	2.0900	2.1000	2.1100	2,1200	2.1300	2,1409	2.1500	2.1600	2.2000	2.2400	2,2500	
	3.0301	3.0604	3.0909	3.1216	3.1525	3.1836	3.2149	3.2464	3.2781	3,3100	3,3421	3.3744	3,4069	3.4396	3.4726	3,5056	3.6400	3.7776	3.8128	T
100 ft ft	4.0804	4,1216	4.1836	4.2468	4.3101	4.3746	4,4399	4.8061	4,5731	4.8410	4,7097	4,7793	4.8498	4.9211	4.9934	5,9665	5.3689	5.6842	5.7658	T
1	5.1010	5.2040	5.3091	5.4163	5.5258	6.6371	8.7607	5.8666	5,9847	6.1081	6.2278	6,3528	6.4803	8.6101	6.7424	8.8771	7,4416	8,0484	8.2070	
								Orsenia -												T
8.0	6,1820	6.3881	6,4684	6.6330	6.8019	6.9763	7.1533	7.3369	7.8233	7.7156	7.9129	8.1162	8.3227	8.8355	8.7637	8.9778	9,9289	10,980	11,259	
1	7.2135	7.4343	7.8626	7.8983	8.1420	8,3938	8.6540	8.9228	8.2004	9.4872	9.7833	10.089	16,405	10.730	11.087	11,414	12,916	14,815	15.073	T
	8.2857	8.6630	0.8923	9.2142	9.6491	9,8975	10.260	10.637	11.028	11,436	11,859	12,300	12.757	13.233	13,727	14,240	16,499	19,123	19.842	1
1	9,3685	9.7646	19.189	10.583	11.027	11.491	11.978	12.488	13.021	13,579	14.164	14.776	15,416	16.685	16,786	17.619	20.769	24.712	26.802	
10	10,482	10.950	11,464	12.008	12.578	13.181	13.818	14.487	16.193	15.937	16,722	17.549	18,428	19.337	20,304	21,321	28,959	31,643	33,263	
			Witten Address	S. A. C. S. S. C. L.																+
11	11.567	12.169	12.808	13.486	14.207	14.972	15.784	16.845	17.560	18,531	19.561	20.986	21,814	23,046	24,349	26,733	32,150	40,238	42,568	1
12	12,683	13.412	14.192	15.029	18.917	16.870	17.888	18,977	28.141	21,384	22,713	24,133	26.850	27,271	29,002	30,850	39,581	60,895	84.208	
13	13,809	14.688	16.519	18,627	17.713	18.882	20.141	21.498	22,953	24.523	20.212	28.029	29.985	32,089	34.352	36,786	48,497	64.118	68,760	1
14	14.947	16.974	17,086	18.292	19.698	21.018	22.550	24.215	26.019	27,975	39.095	32.393	34.883	37.581	40,885	43,672	59,198	80,498	86,949	1
1.16	16.097	17.293	18,599	20.024	21.679	23.276	25.129	27.162	29.361	31,772	34.405	37,280	40.417	43.842	47,580	81,660	72,035	100,815	109.687	1
100										50000000000000000000000000000000000000		CONTRACTOR OF THE PARTY OF THE					-			T
5 ta	17.268	18.839	20,157	21.825	23.657	26.673	27.886	30.324	33,003	25.950	39.190	42.753	46.672	50,980	86,717	60.925	87,442	126,011	138,109	1 2
17	18.430	20,012	21.762	23,698	25.846	28.213	30.840	33.780	36.974	40.848	44.501	48.884	63.739	59,118	88,076	71,673	108,931	167.263	173,636	-
100	19.815	21.412	23.414	25,845	28.132	39.806	33,990	37.450	41,301	45.599	50.396	55.780	61,725	68,394	78.836	84,141	128.117	195,984	218,046	1 3
148161	20.811	22.841	25,117	27.671	30,639	33,760	37.379	41.446	46.018	51,159	66,930	63,440	70.749	78,968	88.212	98,603	154,740	244,033	273,556	1
20	22.019	24.297	26.870	29,778	33.066	38.788	40.995	48.762	61.160	57.275	64.203	72.052	80.947	91.025	102,444	115,380	186,688	303,601	342,948	-
	e nem							100						1			100,000			+
21	23,238	25.788	28.578	31,969	35,719	39.993	44,885	50.423	68,765	64.002	72.268	31,688	92,470	184.768	118,810	134,841	225,026	377,465	429,631	1 8
22	24,472	27.299	30.537	34.248	38.508	43.392	49,008	55,467	62.873	71,403	81.214	92.503	105,491	120,436	137.632	157,416	271.031	489,066	538,101	Ť
4	28.716	28.845	32.463	39.618	41.430	46.999	63,438	60.893	69,632	79,543	91.148	104,603	120,205	138,297	159.276	183,501	326,237	582,630	673,828	+
M	26,973	30,422	34.426	39.083	44.602	50,818	88,177	66.765	76,790	88,497	102,174	118,155	126,631	158,659	184,168	213,978	392,484	723,461	843,033	-
26	28,243	32.030	35,459	41.048	47.727	54.868	63,249	73.106	84.701	DB.347	114,413	133.334	158,620	181.871	212,793	249,214	471,981	898.092	A	+
	200											1	1.00000	1					-	+
10	34.788	40.588	47.575	56.085	66,439	79,058	94.481	113.288	136,308	164,494	199,021	241,333	293,199	356,787	434,745	830,312				+
28	41,660	49.094	60,462	73.662	90.320	111.435	138.237	172.317	216,711	271.024	341,590	431.863	546,681	693,573	881,170	4				1
16	43.077	51.994	63.276	77.598	98.836	119.121	148.913	187.192	236,126	299,127	386.164	484.483	818,749	791.673						+
40	48.885	60.402	75.401	95,026	120.800	164.762	199,635	259.657	337.882	442,683	581,829	767,091								+
80	54.483	84.679	112.797	162.667	209,348	290,335	408.529	673,770	815,084		4	4								+

Present Value and Future Value Tables

Table A-3 Present Value Interest Factors for One Dollar Discounted at k Percent for n Periods: $PVIF_{k,n} = 1/(1+k)^n$

Period	1%	256	395	4%	8%	8%	7%	8%	55 04 075	10%	11%		1000		16%	18%	20%	24%	10.40
uital - A	0,9901	0.8804	0.9709	0.9815	0.9524	0.9434	0.9346	0.9259	0.9174	0,9991	0.9009	0.8829	0.6880	0.8772	0.8896	0.8621	D.8333	0.8088	0.11
	0.9503	0.9612	0.9426	0.9246	0.9070	6,8800	0.8734	0.8673	0.8417	0.8264	0.8116	0.7072	0.7831	0.7995	0.7861	0.7432	0.6944	0.6594	0.64
3	6.9706	0.9423	0.9151	0.8890	0.8638	0,8398	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.8931	0.6750	0.6575	0.6407	0.6787	0.5246	0.51
4	0.9810	0.9238	0.8885	0.8548	0.8227	0.7921	6.7629	0.7350	0.7084	0.6838	0.6587	0.6355	0,6133	0.5921	0.5718	0.5523	0.4823	0.4230	0.40
6	0.9815	0.9087	9,8626	0.8219	0.7835	0.7473	0.7139	0.6805	0.6499	6,6209	0,5935	0.5674	0.5428	0.5194	0.4972	0,4761	0.4019	0.3411	0.35
								-			1						0.1010	010.414	1
A Bear	0.9420	0.888.0	0.8375	0.7903	0.7462	0.7080	0.8863	0.6302	0.5963	0,5845	0.5348	0.5056	0.4863	0.4668	0.4323	0,4104	0,3349	0.2751	0.212
	0,9327	0.8798	0.8131	0.7599	0.7107	0.8651	8,6227	0.6835	0.8470	0.5132	0.4817	0.4523	0.4251	0,3998	9,3769	0.3538	0.2781	0,2218	0,20
8	0.9235	0.8836	0.7894	0.7307	0.6768	0.6274	0,5820	0.5483	0.5019	9,4665	0,4339	9.4039	0,3762	0.3606	0.3289	0.2050	0.2328	9,1789	0.161
9	9,9143	0.0388	0.7664	0.7628	0.6446	0.5919	0.5439	9.5002	0.4804	0.4241	0.3909	0.3605	0.3329	0.3078	0,2843	0.2630	6,1938	0.1443	0.130
10	0.9083	0.8283	0.7441	0.8758	0.6139	0.5584	0.6083	0.4632	0.4224	0,3385	0.3622	0.3220	0.2946	0.2897	0.2472	0.2267	0.1615	0.1164	0.16
											1								
11	0.8963	0.8043	0.7224	0.6498	0.5847	0.5288	0,4781	0.4289	0,3876	0.3508	0.3173	0.2878	0.2687	0.2368	0.2149	0.1964	0.1348	0,0838	0.68
12	0.8874	0.7888	0.7014	0.6248	0.8888	0.4970	0.4440	0.3971	0.3888	0.3186	0.2858	0.2587	0.2307	0.2076	0.1889	0.1688	0.1122	0.0787	10.0
43	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0,4160	0.3877	0.3262	0.2897	0.2676	0.2292	0.2642	0,1821	6,1825	0.1482	0.0936	0.0610	0.08
14	0.8700	0.7679	0.6611	0,8776	0.8051	0.4423	0.3878	0.3408	0.2982	0.2633	0.2320	0.2048	0.1807	0.1597	0,1418	0.1252	0.0779	0.0402	0.04
16	0.8613	0.7430	0.6418	0.6653	6,4810	0.4173	0.3624	0.3152	0.2748	0.2394	0,2090	0.1827	0.1699	0.1401	0.1229	0.1679	0.0649	0.0397	0.12
		3000,000	and the same		SIN STATE														
18	0.8528	0.7284	0.6232	0.5338	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0,1229	0.1089	0.0930	0.0841	0.0320	0.011
17.5	0.8444	0.7142	0.6050	0.5134	0.4383	0.3714	0.8186	0.2703	0.2311	0.1976	0,1695	0.1466	0.1252	0.1078	0.0929	0.0802	0.0481	0.0258	0.00
18	0.8380	0.7002	0.6874	0.4938	0.4168	0.3603	0.2959	0.2502	0.2120	0.1789	0.1528	0.1300	0.1108	0.0840	0.9808	0.0091	0.0376	0.0208	0.011
49	0.8277	0.6864	0.6703	0.4746	0.3957	0.3305	0.2746	0.2317	0.1945	0.1835	0.1377	0.1161	0.0281	0.0829	0.8703	0.0596	0.0313	0.0188	0.0%
20	0.8195	0.6730	0.5637	0,4584	0.3769	0.3118	0.2584	0.2146	0.1784	0.1486	0.1249	0.1037	8886.0	0.0728	0.0611	0.0514	0.0261	0.0136	0.011
				PARAMETER STATE	Market Control	· · · · · · · · · · · · · · · · · · ·									The second in the				
24	0.8114	0,6598	0.5375	0.4388	0.3589	6.2042	0.2416	8.1987	0.1637	0.1361	0.1117	0.0926	0.0788	0.0638	0.0631	0.0443	0.0217	0.0108	0.000
22	0.8834	G.6488	0.5219	0,4220	0.3418	9.2778	0.2257	0.1839	0.1502	0.1228	0.1807	0.0826	0.0580	0.0860	0.0462	0.0382	0.0181	0.0085	0.001
23	0.7984	0.8342	0.5067	0.4857	0.3258	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738	0.0601	0.0491	9,0402	0.0329	0.0161	0.0071	0.000
24	0,7878	0.6217	0.4919	0,3901	0.3101	0.2470	6.1971	0.1677	0.1264	0.1015	0.0817	0.0859	9.0832	0.0431	9.0349	0.0284	0.0128	0.0067	0.050
250 1	0,7798	0.6098	8,4776	0.3761	0.2953	0.2530	0.1842	0.1480	0.1100	0.0923	0.0736	0.0588	0.0471	8.0378	0.0364	0.0245	0.0105	0.0046	0.0ta
WY V		LIAMILLA CO			Abeur														
30	0.7419	0.8821	0.4120	0.3083	8.2214	0.1741	0.1314	0.0994	0.0784	0.0573	0.0437	0.0334	0.0256	0.0196	0.0161	0.0116	0.0042	0.0016	0.000
36	0.7059	0,8000	9.3654	0.2534	0.1813	9.1301	6.0937	0.0876	0.0490	0.0366	0.0259	0.0189	0.0139	0.0102	0.0075	0.0055	0.0017	0.0008	•
.98	0.6989	0.4902	0.3450	0.2437	0.1727	0.1227	9.0076	0.0826	0.0449	0.0323	0.0234	8.0169	0.0123	0,0089	0.0066	0.0048	0.0014		-
4D	0.6717	0.4529	0.3068	0.2083	0.1420	0.0972	8890.0	0.0480	0.0318	0.0221	0.0164	9.0107	0.0075	0.0053	0.0037	0.0028	0.0007		
50	0.6080	0.3716	0.2281	0.1407	9.0872	0.0843	0.0339	0.0213	0.0134	0.0068	0.8084	0.0035	0.0022	0.0014	8.0009	0.0006	•		

Table A-4 Present Value Interest Factors for a One-Dollar Annuity Discounted at & Percent for n Periods; PVIFA = [1 - 1/(1 + k)^2] / k

	-	-	-					-											
Period	1%	2%	3%	4%	- 日%	8%	7%	8%	9%	10%	3 11%	25	13%	14%	18%	16%	20%	24%	25
4	0.8901	0.9804	0.9769	0.9615	0.9524	0.9434	0.9346	0.0259	0.9174	9.9091	0.9009	0.8929	0.8850	0.8772	0.8495	0.8621	0.8333	0.8065	0.0
2	1.9704	1.8416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1,6901	1.6681	1.8467	1.6267	1.6652	1.5278	1,4568	1.4
11.00 S	2.9410	2,8838	2.8288	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4969	2.4437	2.4018	2.3612	2,3216	2.2632	2.2460	2,1065	1,9813	1.9
ni A	3.9020	3.8077	3.7171	3.6299	3,5460	3.4651	3.3872	3,3121	3,2397	3,1699	3.1024	3.0373	2.0748	2,9137	2.8850	2.7982	2.5887	2.4943	2.3
- C 10 C	4.8634	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3,9927	3.8897	3.790#	3.6989	3.6040	3.5172	3.4331	3,3822	3.2743	2.9986	2.7454	2.8
					action in the														
6	5.7985	6,6014	5.4172	5.2421	6.0767	4.8173	4.7665	4.6220	4.4859	4,3563	4.2306	4,1114	3.9976	3.6987	3.7845	3.5847	3,3265	3,0205	2.50
$\mathcal{D}_{\mathcal{A}}$	8.7282	6.4720	6,2393	8,0021	5.7864	5.8924	5.3893	5.2064	6.0330	4.8684	4.7122	4.5638	4,4228	4.2883	4.1604	4.0388	3.8046	3,2423	3.1
	7.6817	7,3286	7.0197	6.7327	6.4632	6.2098	5,9713	5.7488	5.5348	6.3348	8.1461	4.9676	4.7988	4.5359	4.4873	4.3438	3.8372	3.4212	3.11
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.6162	6,2469	5.9952	5.7690	5.5370	8.3282	5,1317	4.9464	4.7716	4,5065	4.0310	3,5655	3,41
10	8,4713	8,9826	8,5302	8,1109	7.7217	7.3601	7.0236	8.7101	6.4177	6,1446	5.8892	6.6502	5.4262	5.2161	6.0188	4,8332	4.1825	3.6919	3,57
, 10°C. 1	a									Carlo Invita								100000 III IV	Tall
11	10.388	9.7868	9.2526	6.7605	8.3864	7.8869	7.4987	7.1390	6.8062	6,4951	6.2065	6,9377	5.8869	5.4627	5.2337	6.0286	4.3271	3.7767	3.65
4 12	11.256	19.578	8.8840	9.3851	8.8833	8.3838	7.9427	7,5381	7.1607	6.8137	6.4924	6,1944	5.9176	5.6603	8.4200	6.1971	. 4.4392	3.8514	3.71
13	12.134	11.348	10.635	9.9868	9.3836	8.6527	8.3577	7.9038	7.4869	7.1034	6.7499	6,4235	6.1218	5.8424	6.5831	6.3423	4.5327	3.9124	3.78
160	13.004	12.106	11.295	10.863	9.8986	9.2950	8,7488	8.2442	7.7802	7.3867	6.9819	6.6282	6,3026	6.0021	5.7245	8,4678	4.6108	3,9616	3.13
18	13.866	12.848	11.938	11.118	10.380	9.7122	9.1079	8.8898	8.0697	7,8061	7.1909	8.8109	6.4824	6.1422	6.8474	5,6755	4.6755	4.9013	3,85
300 000																			
18	14.718	13.578	12,561	11.662	10.638	10,108	9.4488	6.8514	8.3128	7.8237	7,3782	6.9740	6,6039	6.2661	5,9542	8.6888	4.7206	4.0333	3.86
4	15,582	14.292	13.166	12,166	11.274	10,477	9.7632	9.1218	8.6435	8,0216	7.8488	7.1196	6.7291	8.3729	6.0472	5.7487	4.7748	4.0891	3.50
18	16,398	14.992	13.764	12.689	17.690	10.828	10.059	9.3719	8.7656	8.2014	7.7018	7.2497	6,8399	6.4674	6.1280	5.6178	4.8122	4.0799	3.81
19	17.226	18.678	14.324	13.134	12,086	11.155	10.336	9.6036	0.9501	8.3849	7.8393	7.3658	6,9380	6,6604	6.1982	5,8775	4.8435	4.0987	3.84
20	18.046	16.351	14,877	13,590	12,482	11,470	10.594	0.8181	9.1288	8.8136	7.9833	7,4694	7.0248	6,6221	6.2503	5.9288	4.6696	4.1103	3.95
		ran restud			artonia.											United States			
21	18.867	17.011	15,415	14.028	12.821	11.764	10.836	10.017	9.2922	8.6487	8.0781	7.6520	7.1018	6.6870	6.3125	5.9731	4,8913	4.1212	3.963
22	19.669	17.658	15.937	14.481	13,163	12.042	11.061	18.201	9,4424	8.7716	8,1757	7.6446	7.1695	8.7429	6,3887	6.0113	4.9094	4,1300	5,877
23	20.486	18.292	16,444	14.867	13.489	12.302	11.272	10.371	9,5802	3.5832	8.2864	7,7184	7.2297	6,7921	6,3988	6.6442	4.9245	4,1371	3,971
40.7	21.243	18.914	16.936	15.247	13.759	12,550	11.489	10.529	9.7066	8.9847	8,3481	7.7843	7.2829	6.8351	6,4338	6,9728	4,9371	4,1428	3,981
4 150	22.023	19.523	17.413	15.622	14.094	12.783	11.664	10.675	9.8225	9,0770	8.4217	7.8431	7.3300	6,8729	6,4841	8.0971	4,9476	4.1474	3.944
						- A													
30	28,508	22,398	19.800	17,292	15.372	13.765	12.409	11.258	10.274	9.4269	B.6938	8.0852	7,4987	7.0027	6,5460	6,1772	4,9789	4,1861	2.995
al5	29,409	24.999	21.487	18.665	18.374	14,498	12,948	11,655	10.867	9.6442	8.8682	0.1788	7.5856	7.6700	0.6100	6,2153	4.9915	4.1644	3,996
38	30,108	25.489	21,832	18.903	18.547	14.621	13,035	11.717	19,612	9.6765	8,8786	0.1924	7.8979	7,0790	6,6231	6,2201	4,9929	4.1649	3,996
40	32.836	27,355	23.115	19,793	17.159	15,046	13,332	11.925	19,787	8.7791	8.9511	0.2438	7.6344	7.1050	6.6418	6.2336	4,9988	4.1669	3,998
80	39,196	31.424	28.730	21,482	18,256	15.782	13,601	12.233	10.962	9,9148	9.0417	8,3846	7.6752	7.1327	6,6895	5.2463	4,9995	4.1668	3.919