UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING

SUPPLEMENTARY EXAMINATION PAPER 2005

DEGREE/DIPLOMA AND YEAR OF STUDY: B.COM IV

TITLE OF PAPER: BUSINESS FINANCE I

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS:

1. TOTAL NUMBER OF QUESTIONS ON THIS PAPER : FOUR (4).
2. ANSWER ALL QUESTIONS
3. THE MARKS AWARDED FOR A QUESTION / PART ARE INDICATED AT THE END OF EACH QUESTION/PAPER OF QUESTIONS.
4. ALL CALCULATIONS ARE TO BE MADE TO THE NEREST LILANGENI.
5. WHERE APPLICABLE, SUBMIT ALL WORKINGS AND CALCULATIONS.

NOTE: YOU ARE REMINDED THAT IN ASSESSING YOUR WORK, ACCOUNT WILL BE TAKEN OF ACCURACY OF THE LANGUAGE AND THE GENERAL QUALITY OF EXPRESSION, TOGETHER WITH THE LAYOUT AND PRESENTATION OF YOUR FINAL ANSWER.

SPECIAL REQUIREMENTS: PV TABLES

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

QUESTION ONE

1. Mabandla Ltd is a medium-sized manufacturing company that plans to increase capacity by purchasing new machinery at an initial cost of E3m. The following are the most recent financial statements of the company:

Profit and loss accounts for years ending 31 March:

	2005	**2004**
	E000	**E000**
Sales	5,000	5,000
Cost of Sales	3,100	3,000
Gross Profit	1,900	2,000
Administration and Distribution Expenses	400	250
Profit before interest and tax	1,500	1,750
Interest	400	380
Profit before tax	1,100	1,370
Tax	330	400
Profit after Tax	770	970
Dividends	330	400
Retained Earnings	380	580

Balance Sheets as at 31 March

		2005	**2004**	
	E000	**E000**	**E000**	**E000**
Fixed assets		6,500		6,400
Current assets				
Stock	1,170		1,000	
Debtors	850		900	
Cash	130		100	
	2,150		2,000	
Current liabilities	1,150		1,280	
		1,000		720
		7,500		7,120
10% debentures 2010		3,500		3,500
		4,000		3,620
Capital and reserves		4,000		3,620

The investment is expected to increase annual sales by 5,500 units.
Investment in replacement machinery would be needed after five years.
Financial data on the additional units to be sold is a follows:

	E
Selling price per unit	500
Production costs per unit	200

Variable administration and distribution expenses to increase by E220,000 per year as a result of the increase in capacity. In addition to the initial investment in new machinery, E400,000 would need to be invested in working capital. The full amount of the initial investment in new machinery of E3 million will give rise to capital allowances on a 25% per year reducing balance basis. The scrap value of the machinery after five is expected to be negligible. Tax liabilities are paid in the year in which they arise and Mabandla Ltd pays tax at 30% of annual profits.

The Finance Director of Mabandla Ltd has proposed that the E3.4 million investment should be financed by an issue of debentures at a fixed rate of 8% per year.

Mabandla Ltd uses an after tax discount rate of 12% to evaluation investment proposals. In preparing its financial statements, Mabandla Ltd uses straight-line depreciation over the expected life of fixed assets.

REQUIRED:

a) Calculate the net present value of the proposed investment in increased capacity of Mabandla Ltd, clearly stating any assumptions that you make in your calculations. (20 Marks)

b) Calculate the increase in sales (in units) that would produce a zero net present value for proposed investment. (5 Marks)

(Total: 25 Marks)

QUESTION TWO

An investor has a portfolio of shares in five listed companies:

Company	**Number of shares held**
Ace Ltd	5,000 shares of 1 cent
Black Ltd	8,000 shares of 50 cents
Club Ltd	10,000 shares of 25 cents
Diamond Ltd	12,000 shares of 20 cents
Eight Ltd	15,000 shares of 10 cents

The following data is given regarding the shares:

	Market price	**Current**	**Benefactor**	**Actual expected return during Next year**
Ace Ltd	250 cents	3.2%	1.35	17.5%
Black Ltd	225 cents	4.2%	1.25	15.0%
Club Ltd	180 cents	5.2%	0.90	13.2%
Diamond Ltd	150 cents	2.7%	1.10	15.1%
Eight Ltd	80 cents	1.9%	0.85	12.7%

At present the risk-free rate of return is 9%, while the return on the market is 15%.

REQUIRED:

a) Calculate the beta factor for the portfolio and the required return on portfolio. (10 Marks)

b) Explain whether the individual shares in the portfolio appear to be over-or-under-valued. What action would this imply for the portfolio manager . (10 Marks)

c) Explain the relevance of portfolio theory to a real-world portfolio manager (10 Marks)

QUESTION THREE

Liquidity problems stem from a lack of finance and therefore the most obvious way of improving liquidity is to obtain more finance.

REQUIRED

Discuss the various steps a company could take to improve liquidity without raising external finance. (20 Marks).

QUESTION FOUR

REQUIRED:

Explain the following:

i) Business Risk

ii) The methods of estimating business risk in the context of NPV and

iii) The methods of reducing Business risk

iv) Overtrading

(25 Marks)

Present Value Table

Present value of 1 i.e. $(1+r)^{-n}$

where r = discount rate

n = number of periods until payment

Discount rates (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\dfrac{1-(1+r)^{-n}}{r}$

where r = interest rate

n = number of periods

Interest rates (r)

Years (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·586	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15