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UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING

SUPPLEMENTARY EXAMINATION PAPER 2005

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

TITLE OF PAPER : BUSINESS FINANCE II

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 OF A QUESTION ARE INDICATED AT THE END OF EACH QUESTION/PART OF QUESTION.
4. ALL CALCULATIONS ARE TO BE MADE TO THE NEAREST LILANGENI
5. WHERE APPLICABLE, SUBMIT ALL WORKING CALCULATIONS

NOTE: YOU ARE REMIND ED THAT IN ASSESS ING 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: P.V. TABLES

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

QUESTION 1

Kilimanjaro is a private limited company with intentions of obtaining a stock market listing in the near future. The company is wholly equity-financed at present, but the directors are considering a new capital structure prior to its becoming a listed company.

Kilimanjaro in an industry where the average asset beta is 1.2. The company's business risk is estimated to be similar to that of the industry as a whole. The current level of earnings before interest and taxes is E400,000. This earnings level is expected to be maintained for the foreseeable future.

The rate of return on riskless assets is at present 10% and the return on the market portfolio is 15%. These rates are post-tax and are expected to remain constant for the foreseeable future. Kilimanjaro is considering introducing debt into its capital structure by one of the following methods.

1. E500,000 10% debentures at par, secured on land and buildings of the company;
2. E1,000,000 12% unsecured loan stock at par.

The rate of company tax is expected to remain at 33%, and interest on debt is tax deductible.

(a) You are required to calculate, for each the two options:

(i) values of equity and total market values'
(ii) debt/equity ratios
(iii) cost of equity

[10 Marks]

(b) You are required to list the main problems and costs which might arise for a company experiencing a period of severe financial difficulties.

[7 Marks]

(c) Capital structure can have no influence on the value of the firm. You are required to discuss this statement and to comment briefly on the practical factors which a company may take into account when determining capital structure.

[8 Marks]

[Total: 25 Marks]

QUESTION 2

Assume you are a financial analyst attending a shareholders' meeting at Nhlambeni Ltd on behalf of your employers, a large pension fund. Your company is one of the few institutional investors in Nhlambeni Ltd, which is a medium-sized listed company. The majority of the shareholders are small, private investors. At the shareholders' meeting you overhear a group of shareholders discussing the company's dividend policy. Some of the comments you hear are as follows:

- "I think the company should increase its dividend payout to the maximum it can afford without having to borrow. That way our returns are less risky"
- "I don't agree. I think the company should reduce the dividend and retain even more of its earnings for future investment"
- I would prefer no cash dividend at all and receive annual bonus shares. The value of my share holdings would then immediately increase"
- "I read somewhere that dividend policy has no effect at all on the value of the company's shares"

(a) You are required to discuss the validity or otherwise of the shareholders' comments.

[15 Marks]

(b) The expectations and requirements of institutional investors in respect of a company's dividend policy may be different in a number of respects from those of private, individual shareholders.

You are required to explain these differences and comment on the problems Nhlambeni Ltd might face in trying to reconcile the requirements of the two groups of shareholders.

[10 Marks]

[Total: 25 Marks]

QUESTION 3

The Board of Directors of Mongi Ltd is considering making an offer to purchase Lungile Ltd, a private limited company in the same industry. If Lungile is purchased, it is proposed to continue operating the company as a going concern in the same line of business. Summarised details from the most recent financial accounts of Mongi and Lungile are shown below:

		Mongi Ltd Balance sheet at at 31 March E Millions		Lungile Ltd Balance Sheet as as at 31 March E'000s
Freehold property		33		460
Plant and equipment (net)		58		1,310
Stock	29		330	
Debtors	24		290	
Cash	3		20	
Less: Current Liabilities	(31)	25	(518)	122
		116		1,892
Financed by Ordinary shares[1]		35		160
Reserves		43		964
Shareholders' equity		78		1,124
Medium-term bank loans		38		768
		116		1,892

1. Mongi Ltd 50 cents ordinary shares, Lungile Ltd 25 cents ordinary shares.
Profits and dividends for Mongi and Lungile

	Mongi Ltd (Emillions)		Lungile Ltd (E'000s)	
Year[2]	**Profit after tax**	**Dividend**	**Profit after tax**	**Dividend**
t - 5	14.30	9.01	143	85
t - 4	15.56	9.80	162	93.5
t - 3	16.93	10.67	151	93.5
t - 2	18.42	11.60	175	102.8
t - 1	20.04	12.62	183	113.1

[2] t - 5 is five years ago, t - 1 is the most recent year, etc.

Question 3 Continued

Lungile's shares are owned by a small number of private individuals. The company is dominated by its managing director who receives an annual salary of E80,000, double the average salary received by managing directors of similar companies. The managing director would be replaced if the company is purchased by Mongi.

The free hold property of Lungile has not been revalued for several years and is believed to have a market value of E800,000. The balance sheet value of plant and equipment is thought to fairly reflect its replacement cost, but its value if sold is not likely to exceed E800,000. Approximately E55,000 of stock is obsolete and could only be sold as scrap for E5,000.

The ordinary shares of Mongi are currently trading at 430 cents ex-div. It is estimated that because of difference in size risk and other factors the required return on equity by shareholders of Lungile is approximately 15% higher than the required return on equity of Mongi's shareholders (that is 115% of Mongi required return). Both companies are subject to company taxation at a rate of 40%.

Required:

(a) Prepare estimates of the value of Lungile using three methods of valuation, and advise the board of Mongi Ltd as to the price or possible range of prices, that it should be prepared to offer to purchase Lungile's shares.

[15 Marks]

(b) Briefly discuss the theoretical and practical problems of the valuation methods that you have chosen.

[10 Marks]

[Total : 25 Marks]

QUESTION 4

Sicalo Ltd is considering whether to establish a subsidiary in the USA. The subsidiary would cost a total of $40 million, including $4 million for working capital.

A suitable existing factory and machinery have been located and production could commence quickly. A payment of $38 million would be required immediately, with, with the remainder required at the end of year one. Production and sales are forecast at 50,000 units in the first year and 100,000 units per year thereafter.

The unit price, unit variable cost and total fixed costs in year one are expected to be $50, $20 and $1 million respectively. After one year prices and costs are expected to rise at the same rate as the previous year's level of inflation in the USA, this is forecast to be 4% per year for the next 5 years. In addition a fixed royalty of E3 per unit will be payable to the parent company, payment to be made at the end of each year.

Sicalo has a four year planning horizon and estimates that the realizable value of the fixed assets in 4 years' time will be $40 million. It is the company's policy to remit the maximum funds possible to the parent company at the end of each year. Assume that there are no legal complications to prevent this.

Sicalo currently exports to the USA yielding an after tax net cash flow of E200,000. No production will be exported to the USA if the subsidiary is established. It is expected that new export markets of a similar worth in Southern Africa could replace exports to the USA. Swaziland production is at full capacity and there are no plans for further expansion in capacity.

Tax on the company's profits is at a rate of 50% in both countries, payable one year in arrears. A double taxation treaty exists between Swaziland and the USA and no double taxation is expected to arise. No withholding tax is levied on royalties payable from the USA to Swaziland. Tax allowable ' depreciation' is at a rate of 25% on a straight line basis on all fixed assets.

Sicalo believes that the appropriate beta for this investment is 1.2. The after-tax market rate of return is 12%, and the risk free rate of interest 7% after tax. The current spot exchange rate is US $1,300/E1, and the Lilangeni is expected to fall in value by approximately 5% per year relative to the US dollar. Assume that the Lilangeni is generally stronger than the USA dollar.

Required:

(a) Evaluate the proposed investment from the view point of Sicalo Ltd. State clearly any assumptions that you make.

[18 Marks]

(b) What further information and analysis might be useful in the evaluation of this project?

[7 Marks]

[Total : 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. $\frac{1-(1+r)^{-n}}{r}$

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