UNIVERSITY OF JOHANNESBURG

FACULTY OF MANAGEMENT

DEPARTMENT OF BUSINESS MANAGEMENT

FINAL ASSESSMENT

MODULE	:	**STRATEGIC MANAGEMENT ACCOUNTING**
CODE	:	**STM 8X10**
DATE	:	**17 June 2014**
DURATION	:	**THREE (3) HOURS**
TIME	:	**8h30 to 11h30**
VENUE	:	
TOTAL MARKS	:	**100**
EXAMINER(S)	:	**Mrs S Bronkhorst**
MODERATOR(S)	:	**Mr A Prakke**
NUMBER OF PAGES	:	**12 Page**

INSTRUCTIONS:

1. This is a closed-book assessment.
2. Question papers must be handed in.
3. Read the questions carefully and answer only what is asked.
4. Number your answers clearly.
   a. Indicate the numbers of the questions on the front cover of your answering book.
   b. Answer all the questions (based on the case study) in the examination book provided.
   c. Start every question on a new page.
5. The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.
6. Table A-2 with the Present Value Interest Factors is attached as Annexure A.
7. Ratio Formulas are attached as Annexure B.

QUESTION 1

Tru-Cape announces non-roll square fruit

Apr 01 2014 10:40 Fin24 http://www.fin24.com/Companies/Agribusiness/Tru-Cape-announces-non-roll-square-

Cape Town - SA fruit supplier Tru-Cape Fruit Marketing has announced a programme to create square apples and pears.

This is to make slicing easier and to stop them rolling off kitchen counter surfaces onto the floor.

According to quality assurance manager Henk Griessel, who is behind the test bloc of trees being grown on Oak Valley Estate, Grabouw, this move follows a growing Asian trend to mould fruit into shapes.

"We saw some Chinese pears in the shape of The Buddha and have previously successfully created images on fruit by applying decals during the growing process to create effectively suntanning lines," he explained.

Buks Nel, Tru-Cape's varietal expert, said that many growers approached him to find a more effective way of packing fruit into bins and a way to stop them rolling about.

"We are pleased to report that we can pack more square fruit into a bin now that we have utilised the space that round fruit wastes," he said.

Tru-Cape managing director Roelf Pienaar said while square fruit might make packing more efficient, Tru-Cape's fruit is sold by weight rather than number.

He determined that an initial investment of R500,000 (R200,000 in current assets and R300,000 in fixed assets) is necessary. These funds can be obtained in three ways, as illustrated in Table 1 as Alternatives A, B and C. In Alternative A, Roelf Pienaar would invest the full R500,000 without borrowing. Alternatives B and C will involve borrowing at 23% and 29% annual interest respectively.

Regardless of which alternative he chooses, Pienaar expects sales to average R300,000, costs and operating expenses to average R180,000 and earnings to be taxed at a 27% rate.

The return available on a risk-free investment is 10%. The company's risk relative to the average systematic risk has a 1.2 beta. Having examined the historical data, investors have on average earned about 5% more by taking on additional risk through investing in the stock market.

Projected balance sheets and income statements associated with the three plans are summarised in Table 1.

You are required to:

1.1 Compare the leverage of the three alternatives in Table 1. In terms of each alternative, draw conclusions on the effect of leverage on ROE as well as the operating ratios respectively. (14)

1.2 Should Pienaar opt for Alternative C, will his company be able to create true economic value for his shareholders? Your answer must include all calculations as well as an interpretation of the calculated EVA. (12)

1.4 Based on your calculations in question 1.2 above, how much economic value added should be enough for Alternative C? (2)

1.5 Strategically, how could Pienaar increase his company's EVA? (2)

[30]

TABLE 1: FINANCIAL STATEMENTS ASSOCIATED WITH ROEL PIENAAR'S

BALANCE SHEETS	**ALTERNATIVES**		
	A	**B**	**C**
	R	R	R
Current Assets	200,000	20,000	20,000
Fixed Assets	300,000	30,000	30,000
Total Assets (TA)	**R 500,000**	**R 50,000**	**R 50,000**
Debt (23% & 29% interest respectively)	0	250,000	250,000
Equity	500,000	250,000	250,000
Total Capital (TC)	**R 500,000**	**R 50,000**	**R 50,000**
INCOME STATEMENTS			
Sales	**300,000**	**300,000**	**300,000**
less: Costs + Operating Expenses	180,000	180,000	180,000
EBIT	**120,000**	**120,000**	**120,000**
less: Interest Expense	0	57,500	72,500
Net Profit before Tax	**R 120,000**	**R 62,500**	**R 47,500**
less: Taxes (rate = 27%)	32,400	16,875	12,825
Net Profit After Tax	**R 87,600**	**R 45,625**	**R 34,675**
Profitability %	*40*	*40*	*40*
Activity	*0.6*	*0.6*	*0.6*
RONA %	*24*	*24*	*24*
Interest %	*0*	*23*	*29*
ROE % = NPAT/Equity	*?*	*?*	*?*
Leverage = TC/Equity	*?*	*?*	*?*

Other Key Ratios

EcRONAT(EcROCE) = NOPATx100/TC
NOPAT = Ebit – Tax
K_d = *K%(1-t)Debt*
K_e = RfR + ß(MRP)
WACC = Equity x K_e
Debt x K_d
TC x K
EVA = R – K (or NOPAT – CoC)

QUESTION 2

If a supermarket can reduce inventory days from 55 to 50 days (a cost of sales per day of R54 800) without facing a stock-out on any items calculate the impact on the activity ratio.

Net assets	= R 2 240 000
Sales	= R 25 000 000
Current Liabilities	= R 2 500 000
Fixed Assets	= R 2 000 000

(10)

QUESTION 3

The financial statements of Shatterproof Ltd are made available to you.

Balance sheet 31 December 2013

	R
Opening equity	60 000
Opening Debt	40 000
Opening Capital	**100 000**
Fixed Assets	20 000
Working Capital	80 000
Nett Assets	**100 000**

Income Statement 1 January to 31 December 2013

	R
Sales	100 000
Cost of Sales	55 000
Gross Profit	**45 000**
Overheads	30 000
EBIT	**15 000**
Interest at 12%	4 800
Profit after interest	**10 200**
Tax at 40%	4 080
Net Income	**6 120**

Cost of Equity = 17.5%

You are required to calculate the EVA (25)

QUESTION 4

When shareholders purchase shares they are in effect paying today for the expectation of future stream cash from the company. The price paid represents the average value placed on the expected stream by buyers and sellers. In a free and efficient market, the calculated market value of each share of equity would equal the average view of buyers and sellers of the value per share, i.e. the share price.

You are required to calculate the MVA, market value when the following assumptions have been made:

1. Capital is effective from day 1 of year 1, Y1
2. WACC = 14% in Y0, 14% in Y1, 14% in Y2, 16.5% in Y3
3. 1000 shares have been issued
4. Interest, tax and leverage remain constant
5. Growth is 10% per annum

Income Statements

	Y0	Y1	Y2	Y3
	R	R	R	R
Sales		110 000	121 000	133 100
CoS		60 500	66 550	73 205
Gross Profit		**49 500**	**54 450**	**59 895**
Overheads		22 000	24 200	26 620
EBIT		**27 500**	**30 250**	**33 275**
Interest		8 800	9 680	10 648
PBT		**18 700**	**20 570**	**22 627**
Tax		7 480	8 228	9 051
Net Income		**11 220**	**12 342**	**13 576**
Taxed Interest		5 280	5 808	6 389
NOPAT		**16 500**	**18 150**	**19 965**
Dividends		5 220	5 742	6 316
Retained Earnings		**6 000**	**6 600**	**7 260**

Balance Sheets

	Y0	Y1	Y2	Y3
	R	R	R	R
Equity	60 000	66 000	72 600	79 860
Loans	40 000	44 000	48 400	53 240
Capital	**100 000**	**110 000**	**21 000**	**133 100**
Fixed Assets	60 000	66 000	72 600	79 860
Working Capital	40 000	44 000	48 400	53 240
Net Assets	**100 000**	**110 000**	**121 000**	**133 100**

(30)

- - - oOo - - -

Present value factors

Discount rate per period

No. of periods	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
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	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026