

UNIVERSITY OF ESWATINI  
DEPARTMENT OF BUSINESS ADMINISTRATION  
SPECIAL EXAMINATION PAPER JANUARY 2020

PROGRAMME : MASTER OF BUSINESS ADMINISTRATION

TITLE OF PAPER : ADVANCED CORPORATE FINANCE

COURSE CODE : ACF643

TOTAL MARKS : 100 MARKS

TIME ALLOWED : THREE (3) HOURS

- INSTRUCTIONS
- 1 This paper consists of **six (6)** numbered pages, including this page and Appendix A which contains useful formulae.
  - 2 Answer **ALL FOUR (4)** questions of 25 marks each.
  - 3 Begin solutions to each question on a new page.
  - 4 Show all the necessary workings.
  - 5 Round off all prices to the nearest cent, values to the nearest lilangeni and decimalized interest rates to four decimal places, and decimalized weightings to four decimals.

Note: You are reminded that in assessing your work, account will be taken of accuracy of the language and general quality of expression, together with layout and presentation of your answer.

THIS PAPER MUST NOT BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR OR SUPERVISOR.

**Question 1 (25 marks)**

You have been presented with the financial statements of a rapidly growing safari company: Kubanda Ltd. The most recent financial statements are shown below.

**Kubanda Ltd Statement of Comprehensive Income for the year ending 31 December 2019**

	(E 000's)
Turnover	320 000
Cost of Sales	133 000
Operating Expenses	105 000
PBIT	<u>82 000</u>
Interest paid	22 000
PBT	<u>60 000</u>
Taxation (@ 30%)	18 000
NPAT	<u>42 000</u>
Dividend	21 000
Retained profit	<u>21 000</u>

**Kubanda Ltd Statement of Financial Position as at 31 December 2019**

	(E 000's)
<b><u>Equity &amp; Liabilities</u></b>	
Shareholders' Equity	100 376
Ordinary share capital @ R0.50 each	<u>50 000</u>
Retained earnings	<u>50 376</u>
Liabilities	60 260
Long-term liabilities	<u>38 730</u>
Other current liabilities	6 345
Accounts payable	<u>15 185</u>
Total Equity & Liabilities	160 636
<b><u>Assets</u></b>	
Non-current assets	86 230
Current assets	74 406
Inventory	<u>36 036</u>
Accounts receivable	<u>36 220</u>
Cash	<u>2 150</u>
Total Assets	160 636

**Additional Information:**

- Operating expenses include a depreciation figure of R15 500 000.
- Non-current assets as at 31 December 2018 was R108 430 000.
- Total current assets and total current liabilities as at 31 December 2018 were R80 000 000 and R32 000 000 respectively.
- The company's long term liabilities as at 31 December 2018 was R33 730 000.
- Kubanda's share price mimics the market. The applicable risk-free rate is 8% and a market risk premium of 10%.

**Required**

Calculate the current value of a share of Kubanda based on the Free Cash Flows to Equity (FCFE) model. Assume that Kubanda is able to sustain the current growth rate for the next three years after which the growth rate will slow down to 10% for the foreseeable future.

**Question 2 (25 marks)****KUPERS ENTERPRISES****Statement of Comprehensive Income for year ending 31 December 2018**

	(R) 000
Sales	33 500
Cost of Goods Sold	18 970
Depreciation	1 980
Profit Before Interest and Tax	<u>12 550</u>
Interest Paid	486
Net Profit before Tax	<u>12 064</u>
Taxes	4 222
Net Profit after Tax	<u>7 842</u>
Dividend-Ordinary	4 000
Addition to Retained profit	3 842

**KUPERS ENTERPRISES Statements of Financial position as at December 31 2018**

	(E) 0000 2017	(E) 000 2018
<b>ASSETS</b>		
Net Non-current Assets		
Net Plant and Equipment	15 164	19 167
Current Assets	7 828	8 322
Inventory	4 828	3 722
Accounts receivable	2 000	3 000
Cash	1 000	1 600
Total Assets	<u>22 992</u>	<u>27 489</u>
<b>EQUITY and LIABILITIES</b>		
Owner's equity	16 367	20 209
Share Capital (E1.00 each)	10 000	10 000
Retained profit	6 367	10 209
Long-Term debt	4 817	4 960
Current Liabilities	1 808	2 320
Accounts payable	1 008	1 000
Overdraft	800	1 320
Total Equity And Liabilities	<u>22 992</u>	<u>27 489</u>

**Additional information**

- The cost of debt is 5%. The risk-free rate is 5% and the market risk premium is 7%.
- The current total debt ratio is considered optimal and will not change in the near future.
- Kupers has a beta of 1.5 and during the stable growth phase, the beta will drop to 1.2.
- The tax rate is 35%.

**Required**

Calculate the current value of a Kupers share based on the Economic Value Added (EVA) model, assuming that Kupers will grow its current EVAs at 10% for the next three years after which the EVAs will grow at 5% forever.

**Question 3 (25 marks)**

The sugar market is very competitive. It is dominated by three firms who compete on the basis of price, as there is very little product differentiation. Two of these firms are Sweetness Ltd and Sunsweet Brown Sugar Ltd. Sweetness Ltd is considering the acquisition of Sunsweet Brown Sugar Ltd, which would result in the creation of an entirely new firm known as Sweet Brown Sugar Ltd. They believe that this will enable them to eliminate price cutting in the market and thereby reap higher profits. The finance department of Sweetness Ltd knows that Sunsweet Brown Sugar Ltd would favour a stock offer, and have formulated an exchange offer of 1.25:1 accordingly (1.25 new shares for each existing Sunsweet Brown Sugar Ltd share). The equivalent cost to Sweetness Ltd is E28 775 500. Sweetness Ltd currently has 3 600 000 shares outstanding that are trading at E9.50 per share. Sunsweet Brown Sugar Ltd is valued at E22 950 000, and their shares are currently trading at a price of E12 per share.

Required:

- (a) Calculate the value of the synergy implied in the calculation of the exchange ratio by Sweetness Ltd. (17 marks)
- (b)
- (i) Calculate the NPV of the acquisition and state whether Sweetness Ltd should acquire Sunsweet Brown Sugar Ltd. (6 marks)
- (ii) Calculate the percentage premium Sunsweet Brown Sugar Ltd shareholders are receiving based on the firm's current value. (2 marks)

**Question 4 (25 marks)**

Flying Industries has a beta of 1.4 and its shares are trading at E24 each, with a total market capitalisation of E18 million. The firm has debt of E14.4 million with an average cost of debt of 12%. The firm is contemplating buying Meteoric Mechanics, which has a beta of 1.25 and a debt-to-equity ratio of 54%. Meteoric Mechanics has a 130 000 shares trading at a price of E53.30.

Flying Industries will run Meteoric Mechanics as a wholly owned subsidiary but will increase their debt-to-value ratio to match that of their own capital structure. Meteoric Mechanics has only been paying tax at a rate of 15% for the past few years because of their poor profit record but the combined firm will pay tax at 33%. The yield on treasury bills is 2.5% and the market risk premium is 6%.

Cash flow forecasts (in 000 s) for Meteoric Mechanics (including synergies) are shown in the table below and are expected to grow at a constant rate of 2.5% per year after year 3. The asset sale refers to revenue from the sale of machinery no longer needed by the firm.

	<b>Year 1</b>	<b>Year2</b>	<b>Year3</b>
<b>Sales</b>	2 500	2750	3100
<b>Cost of Sales</b>	1 150	1286	1324
<b>Other Expenses</b>	324	377	401
<b>Depreciation</b>	345	345	389
<b>Earnings before interest and tax</b>	<b>681</b>	<b>742</b>	<b>986</b>
<b>Interest Expense</b>	87	75	66
<b>Additions to NWC*</b>	25	45	-20
<b>Capital Expenditures</b>	165	135	135
<b>Asset Sale</b>	630		

\*NWC – Net working capital

**Required:**

- (a) Calculate the WACC that Flying Industries should use to value Meteoric Mechanics. (7 marks)
- (b) Using WACC, calculate the value of Meteoric Mechanics to Flying Industries. (11 marks)
- (c) Meteoric Mechanics shareholders will not accept an exchange ratio below 2.5:1. At this level, will the deal create value for Flying Industries' shareholders? (6 marks)

APPENDIX A: SELECTED FORMULAE

$$V_{0t-1} = FCF_t / (R - g)$$

$$WACC = \left( \frac{E}{V} \times R_E \right) + \left( \frac{P}{V} \times R_P \right) + \left( \frac{D}{V} \times R_D \times (1 - T_c) \right)$$

$$R_E = R_F + \beta_E \times (R_M - R_F)$$

$$\beta_{ASSET} = \frac{\beta_{EQUITY}}{(1 + [(1 - T_c)(D / E)])}$$

$$\beta_{EQUITY} = \beta_{ASSET} \times \left( 1 + \left( (1 - T_c) \times \frac{Debt}{Equity} \right) \right)$$

$$\alpha = \frac{\text{No. of new shares issued}}{\text{No. of old shares} + \text{No. of new shares issued}}$$

$$\bullet \text{ Firm value} = \sum_{t=1}^T \frac{FCF_t}{(1+WACC)^t} + \frac{FCF_{T+1}}{(1+WACC)^T}$$

$$\bullet \text{ ROA} = \text{NPAT} / \text{Total Assets}$$

$$\bullet \text{ Net Profit Margin} = \text{NPAT} / \text{Sales}$$

$$\bullet \text{ Total Debt ratio} = \text{Total debt} / \text{Total Assets}$$

$$\bullet \text{ ROE} = \text{NPAT} / \text{Equity}$$

$$\bullet \text{ Debt: Equity ratio} = \text{Total Debt} / \text{Total Equity}$$

$$\bullet \text{ ROE} = \text{PM} \times \text{TAT} \times \text{EM}$$

$$\bullet R_P = D / P_0$$