Tutorial letter 102/3/2015

Applications of Financial Management Techniques

MAC3702

Semesters 1 and 2

Department of Management Accounting

IMPORTANT INFORMATION:

- **Note:** This is an **online module**, and therefore your module is available on *my*Unisa. However, in order to support you in your learning process, you will also receive some study materials in printed format.
- Please activate your *my*Unisa and *my*Life email addresses and ensure you have regular access to the *my*Unisa module site for MAC3702.

BAR CODE

Dear student

Enclosed please find:

PART A: Examination preparation and approach

PART B AND C: Mock examination for the purpose of self-evaluation as well as the suggested solution. The mock exam should be approached as an examination paper. It is your own interest to do this mock paper under examination conditions and only then work through the suggested solutions in conjunction with your own answer.

PLEASE NOTE:

REMEMBER THAT THE MOCK EXAM DID NOT COVER ALL THE STUDY UNITS AND METHODS IN YOUR STUDY GUIDE.

YOU NEED TO KNOW THE FULL CONTENT OF YOUR STUDY GUIDE FOR THE UPCOMING EXAMS.

PLEASE MAKE SURE THAT YOU WORK THROUGH YOUR TUTORIAL LETTER MO001 AND THE TEXT BOOK IN CONJUCTION WITH THE MOCK EXAM AS DIFFERENT TOPICS OR METHODS MAY BE ASKED IN THE UPCOMING EXAM.

With kind regards

MAC3702 lecturers

PART A: EXAMINATION PREPARATION AND APPROACH

1. EXAMINATION PREPARATION AND APPROACH

The following matters regarding the examination deserve your attention:

1.1 ADMISSION TO THE EXAMINATION

You would have obtained admission to the examination by submitting the compulsory assignment 01/2015 before or on its due date.

1.2 YEAR-MARK

Only if you **obtain at least 40% in the examination will your semester mark count 20% towards your final mark.**

Your **semester mark** will be calculated as follows.

Assignment 1:	25% of semester mark
Assignment 2:	75% of semester mark
Assignment 3:	0% of semester mark

1.3 FORMAT OF THE EXAMINATION PAPER

The examination paper consists of FIVE (5) questions. Question 1- 4 is longer scenario type of questions. Question 5 consists of shorter questions.

You will not get questions that you have seen before, although the exam paper will test the **same principles** as the questions included in papers, this MAC3702 mock exam paper, assignment questions and the study guide. The principles will be tested on a level that is acceptable for third year students. Please work through all the examples and questions in your text book, the study guide (tutorial letter MO001 available in hard copy and on myUnisa), your assignment questions and the solutions (available on myUnisa) and the mock exam paper.
Once working through all these different examples you will get an understanding of the different methods as to how the principles can be tested.

The examination paper counts out of 100 marks, which needs to be completed within two hours. That leaves you with 1,2 minutes to obtain one mark.

1.4 LANGUAGE PROFICIENCY

We have quite a number of Afrikaans speaking students who are concerned about their inability to translate English terminology into Afrikaans.

We undertake not to penalise anyone who uses both English and Afrikaans to answer the examination paper. It is, however, of major importance to indicate logical reasoning and calculations. We need to see clearly what you did and why you did it, to be able to award marks accordingly.

1.5 EXAMINATION TECHNIQUE

In the past, the following general technique-related mistakes were identified:

- Questions weren't commenced on separate pages. The examination instructions are specific and should be adhered to.
- Illegible handwriting made marking difficult, possibly resulting in fewer marks being awarded.
- Students obviously deviated from the suggested time table. If you are unable to complete a question within the suggested time, STOP, and proceed to a next question. It has been proven time and again that more marks will be earned by attempting the next question, than what would be earned by continuing with a question of which the suggested time has expired.
- Many students didn't answer what has been required in the question. Please, read the "required" section of a question carefully, before even reading the story-line. When you start answering the question, check that you answer what is **really** required - not what you **think** is required. Structuring your answer into subsections with appropriate headings will help a great deal to prevent you from making this mistake.
- Subsections of answers were not always clearly identified. Structure the layout of your answer to group subsections of a question. Avoid including a subsection of a question at the end of your script. If you have no choice, refer to the subsection in the main body of your answer.
- Marks were lost because calculations were not shown. Bear in mind that sufficient calculations in your answer will enable us to follow your logic and award marks accordingly.

  Calculations relating to a specific part of your answer must be included in that specific part and not at the back of your examination script or with other, unrelated questions. If it cannot be helped, please remember to cross-reference it to the question.

1.6 IMPORTANCE OF myUNISA

Please ensure that UNISA has your correct cell phone number. Also ensure that you receive e-mail sent to your Unisa mylife e-mailbox. We do communicate by e-mail and sms and if your details are not up to date, you could miss out on important communications.

Check the website regularly for additional study resources. We are now fully online and all the study material is posted on the myUnisa website (except for tutorial letter 101 and MO001 that was distributed in printed format).

1.7 PERSEVERANCE

We would like to encourage you to approach this last part of your studies with enthusiasm. Remember that perseverance is the key to success.

We find that some students, who qualify to take the exam, don’t turn up. We urge you not to do this. Remember that if you write, you have a chance to pass; if you don’t, you have no chance. By sacrificing two hours of your time, you could prevent repeating a whole semester’s study.

We wish you a pleasant study period and trust that you will be successful in the examination.

PART B (Mock Exam)

PLEASE NOTE:

1. This paper consists of THREE (3) questions.

2. All questions must be answered.

3. Basic workings, where applicable, must be shown.

4. Each question must commence on a separate page.

PROPOSED TIMETABLE

Question	Topic	Marks	Minutes
1A	Ratio analysis	25	30
1B	Capital budgeting	15	18
1C	Sources of funding	5	6
1D	Environmental factors	5	6
2	Dividend policy	25	30
3	Short questions	25	30
		100	120

Question 1 (50 marks; 60 minutes)

This question consists of Part A to Part D

Part A (25 marks; 30 minutes)

Soda Pop Limited (Soda Pop)

You were recently hired as a financial analyst by Soda Pop. The company is not listed and is in the business of manufacturing and selling soft drinks.

The following information is available on 31 March 2X14.

Statement of comprehensive income for the year ending 31 March 2X14

	2X14	**2X13**
	Rand	**Rand**
	'000	**'000**
Turnover	1 500 000	1 800 000
Cost of sales	1 050 000	1 500 000
Opening inventory	250 000	400 000
Production	1 200 000	1 350 000
Less: Closing inventory	(400 000)	(250 000)
Gross profit	450 000	300 000
Marketing and administrative expenses	(150 000)	(180 000)
Operating profit	300 000	120 000
Interest received	80 000	60 000
Profit before taxation	380 000	180 000
Taxation expense	(106 400)	(50 400)
Profit after taxation	**273 600**	**129 600**

Question 1 Part A (continued)

Statement of financial position at 31 March 2X14

	2X14 Rand '000	2X13 Rand '000
Assets		
Non-current assets	1 200 000	1 050 000
Property, plant and equipment	1 000 000	850 000
Long-term financial assets	200 000	200 000
Current assets	1 470 000	1 300 000
Inventory	400 000	250 000
Trade receivables	320 000	400 000
Other current assets	150 000	150 000
Cash balances and investments	600 000	500 000
Total assets	**2 670 000**	**2 350 000**
Equity and liabilities		
Equity	1 375 000	1 160 000
Ordinary share capital (250 000 ordinary shares)	500 000	500 000
Accumulated reserves	225 000	125 000
Retained earnings	650 000	535 000
Non-current liabilities	682 000	710 000
Long-term loan	550 000	600 000
Debentures	12 000	10 000
Deferred taxation	120 000	100 000
Current liabilities	613 000	480 000
Trade payables	350 000	250 000
Provisions and accruals	263 000	230 000
Total equity and liabilities	**2 670 000**	**2 350 000**

Question 1 Part A (continued)

Historical financial ratios of Soda Pop Ltd and industry averages for 2x14

Ratio	Historical financial ratios			Industry averages
	2X12	2X13	2X14	2X14
Current ratio	1,9	2,7	(i)	2,2
Acid test ratio	0,9	2,2	(ii)	1,6
Debt/equity ratio	58%	52,59%	(ii)	31%
Gross profit percentage	11%	16,66%	(iv)	22%
Return on total assets	2,88%	3,67%	(v)	12%
Inventory turnover	8 times	6 times	(vi)	4,10 times

Additional information

- Credit terms for the purchases of the company was 30 days from invoice date and increased to 45 days from invoice date.
- The company's target debt/equity ratio is 30%. Management hopes to meet this target by paying off a substantial amount on the long-term loan in the near future.
- The company has revised the inventory policy in order to keep inventory holding to a resulting in cost savings. They have decided to introduce the JIT (Just in Time) basis for producing inventory.
- The closing inventory includes inventory delivered for a special order that starts the first week of April 2x13.
- One of the main ingredients was purchased from a new supplier in 2x13 at a discounted rate.
- The company has a target weighted average cost of capital (WACC) of 12%.
- VAT is levied at 14%.
- The company's tax rate is 28%.
- Assume there are 365 days in a year.

Question 1 Part A (continued)

Required:

(a) Calculate ratios (i) to (vi) for 2X14. Show all your workings and round your final answer to the nearest two decimal places. (13)

(b) Compare the ratios for 2X14 as calculated in (a), to the prior year (2X13), and provide reasons for the improvement / deterioration. Take both the information included in the financial statements and the additional information into account when providing your reasons. (12)

Use the following format when compiling your answer:

Ref to calcu-lation	**Ratios**	**Ratio calculated in (a) to (f) for 2x14**	**Ratio given for 2X13 and improved / deteriorated in 2x14**	**Possible reason(s) for the improvement / deterioration from 2X13**
(i)	Current ratio		2,7 **improved / deteriorated**	
(ii)	Acid test ratio		2,2 **improved / deteriorated**	
(ii)	Debt/equity ratio		52,59% **improved / deteriorated**	
(iv)	Gross profit percentage		16,66% **improved / deteriorated**	
(v)	Return on total assets		3,67% **improved / deteriorated**	
(vi)	Inventory turnover		6 times **improved / deteriorated**	

[25]

Question 1 (continued)

Part B (15 marks; 18 minutes)

Soda Pop Limited (Soda Pop)

Use the same set of financial information as set out in Part A and consider the following additional information.

Additional information

According to the long-term strategic plan the company needs to expand its operations. Management is considering expanding the product range by adding another flavor to the current product lines. The production line needs to be tailored to accommodate the additional flavor and Soda Pop has R35 000 000 available for this capital expansion.

Management has investigated a number of projects and the following information is available for the different possibilities. Note that these projects are independent from each other.

	Project Very Berry	**Project Lemon & Lime**	**Project Coconut Pine**	**Project Bubblegum**
Investment	(R 20 000 000)	(R35 000 000)	(R23 000 000)	(R15 000 000)
NPV	R2 200 000	R3 680 000	(R2 750 000)	R1 400 000
IRR (%)	14	12	9	17
NPVI (PI)	**?**	**?**	**?**	**?**

Required:

(a) Prepare an analysis based on NPV, IRR and PI rankings to identify the project / projects in which the company should invest in the near future. (11)

(b) Prepare a memorandum addressed to the management team and advise them in which project/projects they should invest. Base your answer on the analysis done in part (a) above and substantiate your answer with proper reasons. (4)

Question 1 (continued)

PART C (5 marks; 6 minutes)

Soda Pop Limited (Soda Pop)

The following additional information in respect of Soda Pop Limited applies to Part C:

Soda Pop Limited will need to consider which sources of finance it should use for the capital investment that was recommended in Part B before. Consider the following two sources of finance available to the company for the capital investment:

(i) Incur a long-term loan from AB Bank with a 12% interest rate

OR

(ii) Issue additional ordinary shares in Soda Pop Limited

REQUIRED:

Recommend which one of the two sources of finance available to the company, should be used in order to finance the investment. Provide valid arguments for your recommendation.

(You do not need to include the impact of WACC in your argument and also note that you do not need to calculate the amount of debt or equity for finance purposes.) (5)

PART D (5 marks; 6 minutes)

Soda Pop Limited (Soda Pop)

Name five (5) environmental factors Soda Pop will need to consider in addition to the qualitative reasons as discussed in Part B when deciding on a project to invest in. (5)

[50]

Question 2 (25 marks; 30 minutes)

You are presented with the following abridged balance sheets for Car rentals (Pty) Ltd and Truck rentals (Pty) Ltd:

	Car rentals (Pty) Ltd R '000	Truck rentals (Pty) Ltd R '000
Total Assets	**91 380**	**143 300**
Property, plant and equipment	54 880	96 000
Investments	20 000	9 000
8 mil shares in Big truck rentals (Pty) Ltd	20 000	
3 mil shares in Big car rentals (Pty) Ltd		9 000
Other Assets	10 300	25 000
Current Assets	6 200	13 300
Equity and Liabilities	**91 380**	**143 300**
Issued capital (ordinary shares of R1 each)	60 000	80 000
Retained earnings	19 000	45 100
Long-term borrowings	10 000	8 000
Current liabilities	2 380	10 200

Additional information

1. Both companies are in the vehicle rental industry and have decided to expand on the services they deliver to the client as both have lost some income due to the fact that they were not diversified enough.

2. The companies have decided that a merger would result in some synergies that will benefit both companies and therefore they have agreed on the following terms and conditions:

   a. A new company will be incorporated namely Vehicle rentals (Pty) Ltd.

   b. Some of the assets for Car rentals (Pty) Ltd and Truck rentals (Pty) Ltd will be revalued as follows before the merger takes place to reflect the current market values:

Question 2 (Continued)

	Car rentals (Pty) Ltd R '000	Truck rentals (Pty) Ltd R '000
Property, plant and equipment	65 000	125 000
Goodwill	2 500	12 000
Other Assets	12 000	27 500

3. Vehicle rentals (Pty) Ltd will take over all the assets and liabilities with exception of the intercompany shareholdings (investments) of Car rentals (Pty) Ltd and Truck rentals (Pty) Ltd at the current market values.

4. The purchase price will be settled via the issuing of ordinary shares to the value of R10 each in Vehicle rentals (Pty) Ltd

Required:

(a) Determine the purchase price payable to the shareholders of Car rentals (Pty) Ltd and Truck rentals (Pty) Ltd (excluding the intercompany investments). (6)

(b) Calculate how many shares must be issued to the shareholders of Car rentals (Pty) Ltd and Truck rentals (Pty) Ltd. (Round your answer to the nearest Rand) (14)

(c) Name five (5) forms of synergy benefits (both financial and operational) that the management of Car rentals (Pty) Ltd and Truck rentals (Pty) Ltd should have taken into account upon deciding if the merger should take place. (5)

[25]

Question 3 (25 marks; 30 minutes)

This question consists of four questions, each question must be considered independently.

Question 3.1 (12 marks; 14 minutes)

Moreleta Ltd has made a profit of R47,5 million in the current financial year. The cash reserve has grown to R62,5 million. The company is currently consider to invest in a new capital project of R60 million. The financial manager has suggested that the new project should be funded as follows: R30 million in cash and R30 million by means of a long-term loan with a fixed interest rate of 12% per annum.

The directors are aware that Morelata Ltd should continue paying a dividend. If this does not happen it will negatively impact the current share price of R50 per share. The shares are currently trading at twice the current net asset value. Moreleta Ltd paid a dividend of R1,50 per share in the previous financial year. The 25 million (number of shares) in issue have remained unchanged for the past five years.

The financial director is considering a number of dividend options for the current year.

(a) Growing the previous dividend by 18%

(b) Applying a dividend cover of 1,2

(c) Issuing a scrip dividend on a 1 to 25 basis assuming all the shareholders accepts the offer

(d) Repurchase 1 million shares on a pro rata basis.

Required:

Evaluate the impact of the four options above on both the per share level and on the Statement of financial position of Moreleta Ltd. Show all your calculations. (12)

Question 3.2 (3 marks; 4 minutes)

The following information is available:

Real rate of return: 15%

Inflation: 5.5%

Required:

Calculate the nominal rate of return (Round your answer the nearest two decimals) (3)

Question 3 (Continued)

Question 3.3 (8 marks; 10 minutes)

A local transport company Trans (Pty) Ltd imported new truck trailers for an exclusive manufacturer in Europe. The last order was placed on 31 March 2014 for new truck trailers to the value of €450 000. The shipping terms are free on board (FOB), and the furniture was loaded on 15 April 2014. The payments terms are 30 days from of shipmen, and Trans (Pty) Ltd makes use of forward exchange contracts (FEC) to hedge against fluctuations in the foreign currency exchange rate.

The following rates are available:

Date	Bank selling rate	Bank buying rate
31 March 2014	14,0097	14,9916
15 April 2014	14,0765	14,0605
30 April 2014	14,2270	14,2411
14 May 2014	14,5570	14,5411
Forward rate (30 days) 14 May 2014	14,1582	

Required:

(a) Calculate the rand amount due on the date of the transaction. (2)

(b) Assume that no forward cover was taken out to hedge the exchange rate risk. Calculate the foreign currency gain or loss between the transaction date and the payment date. (3)

(c) Determine if it would have been to the benefit of the company had they taken out the forward cover. (3)

[8]

Question 3.4 (2 marks; 2 minutes)

A company has the following long term ratios:

- Ploughback ratio (b) 50%
- Return on investment (r) 12%

Required:

- Calculate the potential internal long-term growth of the company. (2)

[50]

PART C: SOLUTION TO THE MOCK EXAM

Question 1 (25 marks; 30 minutes)

Part A (18 marks; 21 minutes)

(a) **Current ratio**

Current ratio $= \frac{\text{Current assets}}{\text{Current liabilities}}$

$= \frac{\text{R1 470 000}}{\text{R613 000}}$

= 2,40

(b) **Acid test ratio**

ACID test ratio $= \frac{\text{Current assets} - \text{closing inventory}}{\text{Current liabilities}}$

$= \frac{\text{R1 470 000} - \text{R400 000}}{\text{R613 000}}$

= 1,7

(c) **Debt/equity ratio**

Debt/equity ratio $= \frac{\text{Long-term debt}}{\text{Total shareholders' interest}}$

$= \frac{R682\ 000 - R120\ 000}{\text{R1 375 000}}$

= 41%

(d) **Gross profit percentage**

Gross profit percentage $= \frac{\text{Gross profit}}{Turnover}$

$= \frac{\text{R450 000}}{R1\ 500\ 000}$

= 30%

Question 1

Part A (continued)

(e) **Return on total assets**

$$\text{Return on total assets} = \frac{\text{EBIAT}}{\text{Total assets}}$$

$$= \frac{(R300\ 000\ x\ 72\%)R216\ 000}{\text{R2 670 000}}$$

$$= 8{,}10\%$$

(f) **Inventory turnover**

$$\text{Inventory turnover} = \frac{Cost\ of\ sales}{\text{Closing inventory}}$$

$$= \frac{\text{R1050 000}}{\text{R400 000}}$$

(18)

Question 1, Part A (continued)

(b)

Ref to calc	Ratios	Ratio calculated in (a) to (f) for 2x14	Ratio given for 2X13 and improved / deteriorated in 2x14	Possible reason(s) for the improvement / deterioration from 2X13
(a)	Current ratio	2,40	2,70 Deteriorated	Current ratio deteriorated from the prior year. Increase in current assets was less than the increase in the current liabilities from year 2X13 to 2X14. This is due to the large increase in trade payables as a result of the longer credit terms that were negotiated so therefore the company made more purchases on credit.
(b)	Acid test ratio	1,7	2,2 Deteriorated	Acid test ratio deteriorated quite significantly from the prior year. This was due to an increase in closing inventory (relating to the special order) as well as a large increase in the trade payables.
(c)	Debt/equity ratio	40,87%	52,59% Improved	This ratio improved by approximately 10% from 2X13 but is still not close to the target D/E ratio of 30%. The reason for the improvement is due to the decrease in long-term debt. The gearing of the company has improved from 2x13.

Question 1, Part A (continued)

Ref to calc	Ratios	Ratio calculated in (a) to (f) for 2x14	Ratio given for 2X13 and improved / deteriorated in 2x14	Possible reason(s) for the improvement / deterioration from 2X13
(d)	Gross profit percentage	30%	16,66% Improved	This ratio improved significantly as it almost doubled in 2x14. A reason is due to cost of sales decreasing substantially, therefore increasing the gross profit significantly.
(e)	Return on total assets	8,10%	3,67% Improved	There was an approximate improvement of 4% from the prior year. EBIAT increased and almost doubled from 2X13. The gross profit also increased with 50% and marketing expenses decreased by 17%. The asset base was also maintained and improved from the prior year to current.
(f)	Inventory turnover	2,63 times	6 times Improved	This ratio has improved significantly from the prior year. The company has reworked its inventory holding policy and holds fewer inventories than 2X13. The company has implemented a JIT (Just in Time) system for inventory production.

(12)

[25]

Question 1 (continued)

Part B (15 marks; 18 minutes)

Soda Pop Limited (Soda Pop)

We firstly eliminate the projects with a negative NPV which cannot be considered in the analysis, therefore we eliminate Coconut Pine. (2)

We cannot accept all the NPV positive projects as they are independent from each other. Capital rationing for a single period applies and we need to calculate the NPVI's for each project and rank them in terms of profitability.

	Project Very Berry	**Project Lemon & Lime**	**Project Bubblegum**
Investment	(R 20 000 000)	(R35 000 000)	(R15 000 000)
NPV	R2 200 000	R3 680 000	R1 400 000
NPVI (PI) [(Inv + NPV)]/Inv	**1,110**	**1,105**	**1,093**

(2)

(i) We now need to rank the projects in terms of NPV:

Project available	**Investment required**	**NPV**	**Funds remaining**	**Total NPV generated**
			R35 000 000	
Lemon & Lime	R35 000 000	R3 680 000	0 ①	R3 680 000
Very Berry	R20 000 000	R2 200 000		
Bubblegum	R15 000 000	R1 400 000		
				R3 680 000

(2)

① Funds remaining = Available funds for the project less investment required for the new project
= R35 000 000 – R35 000 000

Question 1 (Part B) (Continued)

(ii) We now need to rank the projects in terms of IRR(%):

Project available	Investment required	NPV	IRR (%)	Funds remaining	Total NPV generated
				R35 000 000	
Bubblegum	R15 000 000	R1 400 000	17	R20 000 000 ①	R1 400 000
Very Berry	R20 000 000	R2 200 000	14	0 ②	R2 200 000
Lemon & Lime	R35 000 000	R3 680 000	12		
					R3 600 000

(3)

① Funds remaining = Available funds for the project less investment required for the new project
= R35 000 000 – R15 000 000
= R20 000 000

② Funds remaining = Available funds for the project less investment required for the new project
= R20 000 000 – R20 000 000

(iii) Lastly we rank the projects in terms of NPVI (PI):

Project available	Investment required	NPV	NPV(PI)	Funds remaining	Total NPV generated
				R35 000 000	
Very Berry	R20 000 000	R2 200 000	1,110	R15 000 000 ①	R2 200 000
Lemon & Lime	R35 000 000	R3 680 000	1,105	R15 000 000	
Bubblegum	R15 000 000	R1 400 000	1,093	R0 ②	R1 400 000
					R3 600 000

(2)

① Funds remaining = Available funds for the project less investment required for the new project
= R35 000 000 – R25 000 000
= R15 000 000

② Funds remaining = Available funds for the project less investment required for the new project
= R15 000 0000 – R15 000 0000
= R0

Question 1 (Part B) (Continued)

Please note:

In calculation (iii) you do not have enough funds available to invest in project Lemon & Lime ranged second according to NPVI. You do however have enough funds to invest in Bubblegum that is ranged third. You will therefore use the available funds to invest firstly in Very Berry and then in Bubblegum..

Your conclusion will therefore be based on the project (or combination of projects) that will generate the highest NPV as calculated in (i) and (ii)

Conclusion

Based on the calculation you should invest your money in Lemon & Lime AND Bubblegum to generate the highest NPV on your investment.

(11)

Question 1 (Part B) (Continued)

(b) **Memorandum**

To: Management team of Soda Pop Limited

From: MR CFO (NOTE NEVER INCLUDE YOUR OWN NAME)

Date: 25/04/2014

RECOMMENDATION OF THE CAPITAL PROJECT SODA POP LIMITED SHOULD INVEST IN

The following procedures were performed in order to analyse which project Soda Pop needs to invest in:

(i) We firstly ranked the projects in terms of their various NPV's
Project Lemon & Lime was ranked at no.1 with projects Very Berry and Bubblegum in second and third place respectively.

There were only enough funds available to invest in Project Lemon & Lime. Total NPV generated by the project was R3 680 000.

(ii) Secondly, we ranked the projects in terms of their various IRR (%)
Project Bubblegum was ranked at no. 1 with project Very Berry in second place and project Lemon and Lime in last place. There were enough funds available for both projects Bubblegum and Very Berry. Total NPV generated by these two projects was R3 600 000.

(iii) Lastly, the projects were ranked according to their various NPVI's (PI):
Project Very Berry was ranked at no.1 with project Lemon and Lime in second place and project Bubblegum to follow. There were enough funds only for project Very Berry. Total NPV generated by the project will be R2 200 000.

Due to the fact that these projects are evaluated independently, the acceptance or rejection of one project has no bearing on the acceptance or rejection of any of the other projects.

Recommendation:

Therefore we recommend to the management team of Soda Pop Limited, to invest in Project Lemon and Lime only, as it generates the highest NPV. (4)

[15]

Question 1 (Continued)

PART C (5 marks; 6 minutes)

Soda Pop Limited (Soda Pop)

Soda Pop Limited has access to two different sources of finance in order to finance the capital investment as calculated in PART B. The long-term loan is classified as a source of debt finance and the issue of additional ordinary shares is classified as a source of equity finance.

Soda Pop needs to consider both the following financial indicators when considering which source of finance to use in this scenario:

- The company's current debt/equity ratio
- The company's target debt/equity ratio

The company has a current debt/equity ratio of 41%. This indicates that the company is geared very high in relation to its target debt/equity ratio of 30%. We can also conclude that the company carries a very high financial risk due to its high gearing.

If Soda Pop Limited uses long-term debt in order to finance the capital investment, the debt/equity ratio will be higher, and not in line with the target debt/equity ratio. It will also lead to increased financial risk, causing investors to require increased rates of return on their investments.

My recommendation is that Soda Pop Limited finances the capital project by issuing additional ordinary shares (equity). It will lead to an improvement in the current debt/equity ratio that is closer to the target debt/equity ratio. The financial risk of the company will also decrease which will be positive for investors.

(5)

Question 1 (Continued)

Part D (5 marks; 6 minutes)

Soda Pop Limited (Soda Pop)

(a) **Environmental factors to consider (any five):**

- The expanded production line will most probably use more electricity than what it is currently utilising. This will increase operating costs as well as increase the company's carbon footprint. In South Africa, electricity is a scarce commodity and businesses should also try and keep their usage as low as possible.
- Will the same technology be used for the new project?
- Will staff need to be trained to operate the new amended production line effectively?
- Does production output outweigh the costs of the new production line?
- Will customers buy the new flavoured soft drink? Has adequate research been conducted to establish the demand for a new flavour?
- If the new flavour is not a success, will Soda Pop be able to amend the production line easily?

(5)

[50]

Question 2 (25 marks; 30 minutes)

(a) Purchase price payable:

	Car rentals (Pty) Ltd R '000	**Truck rentals (Pty) Ltd R '000**
Property, plant and equipment	65 000	125 000
Goodwill	2 500	12 000
Other Assets	12 000	27 500
Current assets	6 200	13 300
Long-term borrowings	(10 000)	(8 000)
Current liabilities	(2 380)	(10 200)
	73 320	**159 600**

(6)

(b) Number of shares to be issued to the shareholders

% cross shareholdings

Car rentals (Pty) Ltd holds 8 million shares in Truck rentals (Pty) Ltd, that has 80 million issued shares so 8 mil / 80 mil = 10% $= \frac{1}{10}$

Truck rentals (Pty) Ltd holds 3 million shares in Car rentals (Pty) Ltd, that has 60 million issued shares so 3 mil / 60 mil = 5% $= \frac{1}{20}$

Assume that: Car rentals (Pty) Ltd = C

Truck rentals (Pty) Ltd = T

Question 2 (Continued)

Total value of each company (including the investment in the other company)

$C = 73\,320\,000 + \frac{1}{10}T$ **and** $T = 159\,600\,000 + \frac{1}{20}C$

$= 73\,320\,000 + \frac{1}{10}\left(159\,600\,000 + \frac{1}{20}C\right)$

$= 73\,320\,000 + 15\,960\,000 + \frac{1}{200}C$

$\frac{199}{200}C = \text{R}89\,280\,000$

$C = \text{R}89\,728\,643$

$\therefore T = 159\,600\,000 + \frac{1}{20}C$

$= 159\,600\,000 + \frac{1}{20}(89\,728\,643)$

$= \text{R}164\,086\,432$

Number of shares issued to other shareholders in each company

Car rentals (Pty) Ltd $= [\text{R}89\,728\,643 - (\frac{1}{20}C)] / 10$

$= [\text{R}89\,728\,643 - (\frac{1}{20} \times \text{R}89\,728\,643)] / 10$

$= 8\,524\,221$

Truck rentals (Pty) Ltd $= [\text{R}164\,086\,432 - (\frac{1}{20}T)] / 10$

$= [\text{R}164\,086\,432 - (\frac{1}{20} \times \text{R}164\,086\,432)] / 10$

$= 14\,767\,779$

Question 2 (Continued)

Check:

Total shares issued by Vehicle rentals (Pty) Ltd			=	8 524 221 + 14 767 779
			=	23 292 000
Value of total issue	=	23 292 000 x R10	=	R232 920 000

Total value of assets and goodwill taken over into Vehicle rentals (Pty) Ltd

= R73 320 000 + R159 600 000

= R232 920 000

(14)

(c) Five forms of synergies

Financial:

- Revenue enhancement:
  - Marketable gains that results in greater operating revenues from improved marketing such as better advertising efforts, more balanced offerings and the strengthening of the distribution network.
  - Strategic benefits (advantage of a competitive environment)
- Cost reduction:
  - Efficiencies as result from economies of scale, sharing of complementary resources, eliminating duplicate functions and availability of cheaper sources of funding.
- Tax gains

Operational synergies:

- Geographical expansion
- Complementary resources

(5)

[25]

Question 3 (25 marks; 30 minutes)

Question 3.1 (12 marks; 14 minutes)

Assume Dividend per share = DPS and Earnings per share = EPS

No	Calculation	Impact on per share level	Impact on Balance sheet	
(a)	DPS prior year x 1,18 R1,50 x 1,18 = R1,77 per share Total dividend: 25 million shares x R1,77 = R44 250 000	Dividend per share will equal R1,77 per share	The cash and retained earnings will decrease with R44 250 000	(3)
(b)	EPS = R47,5 million / 25 million shares = R1,90 per share DPS = EPS / dividend cover R1,90 / 1,2 = R1,58 per share Total dividend: 25 million shares x R1,58 = R39 500 000	Dividend per share will equal R1,58 per share	The cash and retained earnings will decrease with R38 500 000	(3)
(c)	Share price = R50 per share Scrip dividends are issued on a 1 to 25 basis therefore the value per share = R50 / 25 = R2 per share. The total value of the scrip dividends = 25 million x R2 = R50 million OR 25 million shares / 25 x R50 per share = R50 million	Scrip dividend is valued at R2 per share	Retained earnings will decrease with R50 million and equity will increase with R50 million	(3)

Question 3.1 (Continued)

No	Calculation	Impact on per share level	Impact on Balance sheet	
(d)	Number of shares will decrease to 24 million shares. Decrease in value of shares: 1 million x R50 = R50 million The earnings per share will therefore increase as follows: R47,5 million / 24 million shares = R1,98 per share	Increase in EPS from R1,90 to R1,98.	Cash and equity will decrease with R50 million	(3)

[12]

Question 3.2 (3 marks; 4 minutes)

Nominal rate = [(1 + R)(1 + i)] – 1

= [(1 + 0,15)(1 + 0,055)] – 1

= 1,2132 – 1

= 21,32%

(3)

Question 3.3 (8 marks; 10 minutes)

a. The transaction date is 15 April 2014, because the shipping terms are FOB. Therefore, the rand amount is determined by means of the bank selling rate on 15 April 2014 (Trans (Pty) Ltd is buying currency (EURO) from the bank and therefore the correct rate to use is the bank selling rate).

Rand amount on date of transaction = €450 000 x R14,0765/EURO

= R6 334 425

(2)

Question 3.3 (Continued)

b. Foreign currency gain / loss

= €450 000 x (R14,0765/EURO – R14,5570/EURO)

= R216 225 loss (the exchange rate deteriorated i.e. the rand was trading weaker against the EURO) (3)

c. Effect of forward cover = €450 000 x (R14,5570/EURO – R14,1582/EURO)

= R179 460 benefit

Yes, it would have been to the benefit of the company to take out the forward cover, as the spot exchange rate on 14 May 2014 (R14,5570) is higher than the forward exchange contract (FEC) rate (R14,1582). (3)

[8]

Question 3.4 (Continued)

g = br

= 50% x 12%

= 6% (2)

[25]

REMEMBER THAT THE MOCK EXAM DID NOT COVER ALL THE STUDY UNITS AND METHODS IN YOUR STUDY GUIDE.

YOU NEED TO KNOW THE FULL CONTENT OF YOUR STUDY GUIDE FOR THE UPCOMING EXAMS.

PLEASE MAKE SURE THAT YOU WORK THROUGH YOUR TUTORIAL LETTER MO001 AND THE TEXT BOOK IN CONJUCTION WITH THE MOCK EXAM AS DIFFERENT TOPICS OR METHODS MAY BE ASKED IN THE UPCOMING EXAM.