UNIVERSITY OF JOHANNESBURG

Department of Accountancy

Financial Management 300/BCTA

FINAL ASSESSMENT OPPORTUNITY

10 November 2018

Time: 3 hours & 45 minutes (37 min. reading time & 188 min. writing time) **Marks: 125**

Assessors: Ms M Boshoff
Ms M McKenzie
Mr M Maredi
Ms E Kocks
Mr J Griffioen
Mr T Madiba

Moderator: Mr M Kabini
Mr E Pullen (UWC)

INSTRUCTIONS:

- This paper consists of **12** pages.
- Answer ALL questions.
- Start each question on a new page.
- Silent, non-programmable calculators may be used, unless otherwise instructed.
- Show all calculations clearly. Round all calculations to two decimal places.

PLEASE ANSWER IN THE FOLLOWING COLOUR ANSWER BOOKS
Q1 = BLUE **Q2 = GREEN** **Q3 = RED**

QUESTION 1 **(45 MARKS)**

Adrock Ingmar Ltd ("Adrock") is a South African pharmaceutical company listed on the Johannesburg Stock Exchange. Adrock manufactures and markets healthcare products to both the private and public sectors. The company has impressed the market with profit margins that continuously exceed market expectations.

The South African government recently announced that stricter regulations will be instituted over the pharmaceutical industry because the government believes that the prices of medicines are too high. In response to this announcement, Adrock decided at a recent board meeting that it was time to diversify the company's operations. One of Adrock's leading researches invented a new formula that can be used in the manufacturing of baby diapers. The board is therefore considering to convert the company's Clayville plant, which currently manufactures liquid medicines, to a plant that manufactures baby diapers. You have been asked to advise the board as to whether Adrock should continue with the status quo at the Liquid medicine plant or convert the plant to be able to produce disposable diapers.

Today's date is 10 November 2018. If Adrock decides to make the conversion of their plant, they will have enough time to prepare their operations in order to start manufacturing baby diapers on 1 July 2019.

Liquid medicine plant details

The Clayville plant has already been written of for tax purposes. The plant was recently refurbished at a cost of R70 million to maintain the quality of its liquid medicine operations. The full refurbishment was allowed as a tax deduction in the same year that it was incurred. The plant still has a useful life of 5 years from 1 July 2019 onwards and will be sold for R15 million at the end of its useful life on 30 June 2024. The plant's current operations are projected to deliver after-tax cash flows on liquid medicine operations of R100 million for the year ended 30 June 2020, which is expected to increase by 6% per year until operations will discontinue on 30 June 2024. These amounts exclude the cash flow on the proceeds of disposing the plant on 30 June 2024 and the resulting tax effect thereof, but include all other cash flows relevant to the capital budget.

Disposable diaper plant conversion details

Disposable diapers contain absorbent chemicals and are thrown away after use. The new formula that Adrock considers using in the manufacturing of baby diapers, will make their diapers last longer than their competitors' diapers and Adrock believes it will therefore offer a superior product compared to its competitors. Adrock will need to incur conversion costs of R120 million to convert their Clayville plant to a plant that manufactures baby diapers. Furthermore, a diaper assembly machine will need to be imported from Germany at a cost of R130 million. This price includes transport and installation costs, but excludes the annual maintenance and insurance of R20 million that is payable to the supplier in Germany. These figures are calculated assuming a constant Rand/Euro exchange rate and the maintenance and insurance contract will not be subject to inflation.

The plant conversion cost and the cost of the new machine will be written off for tax purposes at 40/20/20/20 per year. The total useful life of the converted plant and new machinery will be 5 years. At the end of its useful life the plant will be sold for R25 million and the new machine will be sold for R22 million.

Research cost

Adrock contracted a research company to conduct extensive research in the baby diaper market. Their research findings are presented to you below. The research company invoiced Adrock R5 million for the information which is payable by 31 December 2018. Their terms state that if Adrock decides not to do the plant conversion, they only need to pay 60% of the invoice. If Adrock decides to do the plant conversion and uses the researched information to enter the diaper market, the full invoice amount is payable. The full research costs invoiced will be deductible for tax purposes in the year that it is incurred.

Diaper projections

The research company determined that although the diapers market is highly competitive, there is scope for another supplier to enter the market and there are good opportunities to export diapers to neighboring countries through Adrock's well-established distribution channels. Furthermore, since Adrock has a very good relationship with the public sector, there is an opportunity to sign long term contracts with hospitals in the public sector.

The researcher advises that Adrock should sell the diapers in packets of 50 diapers. One packet of 50 diapers counts as a unit. Adrock will be able to manufacture and sell 4 million units in the first year of operations and it is expected that the number of units sold will increase by 10% per year. In order to enter the market and realise the projected sales of 4 million units, the research company advised that Adrock should start off with low prices, and then increase over time. A unit of diapers will therefore be sold at R100 per unit in year 1, and then increase to R150 per unit in year 2. From year 2 onwards, the price of a unit will be increased with 15% per year.

Adrock has no manufacturing capacity constraints but will only manufacture as many diapers as are needed for the market each year. Therefore, the company will not have any closing stock of units of diapers at year-end.

Variable direct cost of manufacturing

The variable direct cost to manufacture a unit in the first year of operations amounts to R60 per unit, and this is expected to increase by 6% per year.

Staff costs

No new staff members will need to be employed because all the staff members that were employed in the liquid medicine operations will be employed in the diaper operations. The salary bill in the liquid medicine operations is projected to amount to R30 million for the first year of operations and is expected to increase by 7% per year. Although Adrock will employ the employees in the diaper operations, Adrock estimates that the company will save money on overtime costs paid to employees. The reason for this saving is that the diaper operations will have a higher level of automation and therefore staff will not need to work overtime on week-ends. The overtime cost amounts to 12% of the annual salary bill.

Electricity costs

The electricity bill will constitute a significant cost in the new operations. Adrock signed a fixed 5-year deal with ESKOM whereby Adrock will not be subject to electricity tariff hikes for the next 5 years. The annual electricity cost has been estimated as follows for various levels of production of diapers:

Units	**Rands**
4 million	11 million
5 million	12,5 million
6 million	14 million

Head office costs

Adrock allocates head office overhead costs of R12 million per year to the liquid medicine operations. This overhead cost is not subject to an increase. The board decided that since the diaper operations will be a new operation, no head office overhead costs will be allocated to the plant for the first 2 years of operations, but from year 3 onwards an annual charge of R20 million will be allocated.

Working capital

Investment in working capital is expected to amount to 20% of sales.

Lease available for diaper assembly machine

The German supplier offered a deal whereby Adrock can lease the diaper assembly machine as opposed to buying it. When leasing the machine, the annual lease payments (payable at the beginning of each year) will amount to R50 million. If Adrock enters into the lease contract, the German supplier will carry the maintenance and insurance cost.

Additional information

- Company tax rate amounts to 28%.
- Ignore VAT.
- Adrock’s WACC is 14%.
- Adrock’s after tax cost of debt is 9%.

QUESTION 2 **(35 MARKS)**

Dynamic Skies Airways Limited (DSA) is a company listed on the JSE Limited and operates in the aviation industry. The group transports passengers and freight to and from about 20 cities in some 12 countries. DSA operates a fleet of aircraft from its hub in Cape Town, South Africa. The group is a member of the Premier Flights Alliance (PFA) network, which includes several leading international airlines. DSA has a 31 October year end.

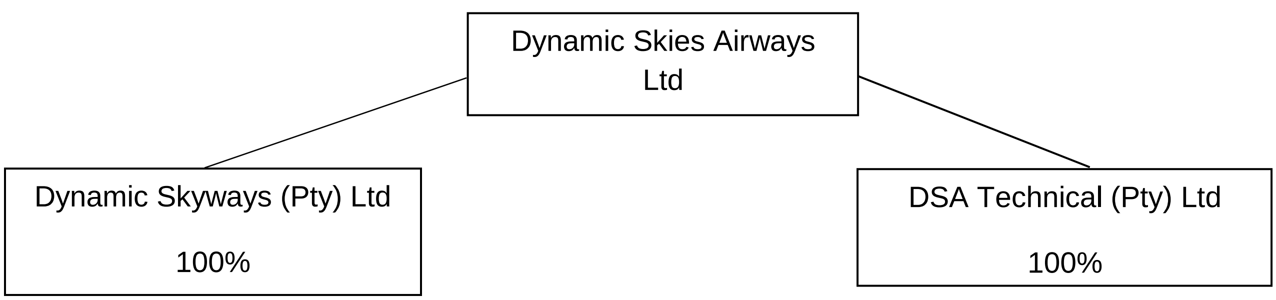
DSA is more than just an airline, it is rather an entire travel experience, the brand aiming to provide customers with the easiest way to book, the easiest way to pay and above all, the easiest to afford. The DSA vision is "to deliver an awesome travel experience in the most efficient way, and be prepared for growth opportunities." Innovation, leadership, integrity and a passion for service are the action pillars and values used by DSA to achieve its vision. This has proven to distinguish DSA in a very competitive market.

The chief financial officer (CFO) of DSA has contacted you, a management accounting specialist, to assist her with the following:

- A transfer pricing issue in DSA Technical (Pty) Ltd;
- The appropriateness of the current DSA organisational structure in executing DSA's strategy.

DSA both execute and manage their strategy through the following organisational structure:

GROUP STRUCTURE



- **Dynamic Skyways (Pty) Limited**
  - Wholly owned subsidiary through which domestic and international passenger and freight services are provided. Dynamic Skyways has a functional organisational structure.

- **DSA Technical (Pty) Limited**
  - Provider of aircraft maintenance, fuels and lubricants to all DSA companies, as well as other overseas airlines. DSA Technical has a divisionalised organisational structure which consists of three divisions - DSA Technical Lubricants (DSATL), DSA Fuels (DSAF) and DSA Maintenance (DSAM). DSAF provides mineral oil to DSATL.

DSA Technical (Pty) Limited
DSA Technical (Pty) Limited has been the rising star of the group. DSA Technical (Pty) Limited has a decentralised management performance and control system and the divisions and divisional managers are exclusively evaluated based on earning a return on capital employed.

DSATL

The main line of business for DSATL is the manufacture and selling of a synthetic aviation oil additive. DSATL produces a branded oil additive, Glide, which is sold to other airlines in 250-litre drums at a price of R20 000 per drum. The key raw ingredient of Glide is mineral oil which is currently sourced from DSAF. The transfer price for mineral oil is based on market prices. Group policy prescribes market price transfer pricing with full autonomy.

DSATL is hoping to boost sales by encouraging more airlines to use Glide to enhance fuel efficiency and minimize carbon emissions. Consumer research has indicated that the Glide market could increase by 80% in volume through improved market share if it were to reduce its current price by 20%. According to the consumer research findings; a decrease in the price of less than 20% would have no impact on existing sales volumes while the increase in sales volumes will remain at 80% even if the price decrease is greater than 20%.

However, DSATL management is reluctant to reduce the price of Glide as they have a sense that any reduction in the selling price will reduce the profitability of DSATL reflecting negatively on the division.

The direct product costs of a drum of Glide consists of mineral oil purchased from DSAF at market price less internal savings (container costs) as well as other direct products sourced from outside the DSA group. Other direct product costs do not result in an increase in volume of the final product.

Fixed manufacturing costs include labour costs. Fixed manufacturing costs will not alter until DSATL's output reaches twice its present level.

DSAF

DSAF produces mineral oil from refining crude oil that is sourced locally from Eastern Crude Oil. There is ample supply of crude oil at a stable price. Mineral oil is used extensively for lubrication applications in the aviation industry. DSAF currently sells on average one third of its output to DSATL and the remainder in 200-litre drums to other airlines.

DSAF has a production capacity for mineral oil of 1 000 000 litres per month, but competition is intense and it on average budgets to produce and sell 750 000 litres of mineral oil per month which includes budgeted internal transfers of 250 000 per month to DSATL. No container costs are incurred on transfers to DSATL.

Pinapple Airways have approached DSA to supply them with 100 000ℓ mineral oil for November in the following financial year (2019 year), due to one of their suppliers having production constraints and not being able to supply them for a short period until their production process has been revised.

Transfer pricing issue

The CFO of DSA Technical (Pty) Ltd believes that they should from November 2018 reduce the price of Glide to stimulate demand as indicated by market research. The manager of DSATL is not willing to do this unless a more favourable transfer price can be set. The manager of DSAF is also adamant that he will not agree to a reduced transfer price for mineral oil as theory in transfer pricing states that market price, when an external market is present, will always facilitate goal congruency.

The CFO of DSA Technical (Pty) Ltd provided you with the following information to assist her in solving the transfer pricing issue:

DSATL Actual management income statement for the month of October 2018		
	DSATL	**Notes**
Sales	20 000 000	1
Cost of sales	16 400 000	
Opening stock	1 600 000	2
Mineral oil	8 100 000	3
Other products	2 700 000	4
Fixed manufacturing costs	4 000 000	5
Closing stock	-	
Gross profit	3 600 000	
Operating expenses	1 200 000	
Operating profit	2 400 000	
DSAF Actual management income statement for the month of October 2018		
	DSAF	**Notes**
Sales	24 975 000	6
Cost of sales	19 262 500	
Opening stock	-	
Raw materials mineral oil	7 250 000	
Container costs	750 000	7
Production labour	3 625 000	8
Variable production overheads	2 537 500	
Fixed manufacturing costs	6 500 000	9
Closing stock	1 400 000	10
Gross profit	5 712 500	
Operating expenses	2 300 000	
Operating profit	3 412 500	
Total DSA Technical operating profit	5 812 500	

Notes:

1. DSATL sold 1 000 drums in October 2018 of 250 litres.

2. Opening stock consists of 100 drums.

3. The transfer price reflected the market price per litre after taking internal savings into account.

4. Other product costs do not increase the volume of the final product. No losses are incurred in the manufacturing process.

5. Fixed manufacturing costs are allocated based on units. DSATL uses their normal capacity of 1 000 drums to allocate fixed manufacturing overheads. DSATL has not experienced any variance between budgeted and actual fixed manufacturing overheads.

6. DSAF actually sold 450 000 litres externally as opposed to the 500 000 litres budgeted. DSAF sold 225 000 litres to DSATL. DSAF is confident that they will in future be able to sell 500 000 litres externally.

7. Only external sales attract container costs.

8. Production labour represents direct labour costs which varies with production volumes.

9. DSAF allocates fixed manufacturing costs based on a normal capacity of 750 000litres. The actual fixed manufacturing overheads incurred were in excess of the budgeted fixed manufacturing overheads. DSAF indicated that it will change its budgeted fixed manufacturing overheads to the actual fixed manufacturing cost incurred in October 2018. DSAF regards the actual fixed manufacturing costs incurred as the new standard.

10. Closing stock represents 250 sealed drums of 250 litres, ready for external delivery.

Additional information

- Assume actual October 2018 information is reflective of budgeted information unless otherwise stated.
- All companies and divisions in the DSA group are autonomous.

QUESTION 3 **(45 MARKS)**

Background

Steinhoff is a global retailer with more than 40 local brands in over 30 countries which adds value to its customers' lifestyles by providing everyday products at affordable prices, and serving them at their convenience.

Steinhoff is registered in the Netherlands, and therefore follows the Dutch system of a supervisory board comprising non-executive directors, and a management board comprising executive directors.

Over more than 50 years, Steinhoff has developed into a global retailer that provides everyday products at affordable prices, serving customers at their convenience.

Steinhoff aims to be the number one retailer of choice by households for quality and value, and with more than 12 000 stores in over 30 countries they provide everyday products at discount prices. Globally retail customers remain under pressure due to weak economic conditions. Steinhoff managed to contain the cost increase in cost of sales through an increase in bulk purchases from suppliers.

Business Operations

Steinhoff currently owns 12 250 retail outlets (2017: 12 750 retail outlets) (including Pep, Ackermans, Unitrans, Russels in South Africa, Mattress Firm in the USA, Pepco, Harveys and Conforama in the UK and Europe and finally Freedom, Snooze, Best and Less in Australia, just to name a few). Steinhoff has approximately 9 million m^2 (2017: 10 million m^2) of retail space. There are 26 manufacturing facilities globally, 150 000 containers shipped annually and approximately 130 000 employees (2017: 150 000 employees). The group CFO was concerned that employee costs per employee were above market rates. The average employee in the market has a salary of R15,000. Further, he was concerned that the group was not utilising the retail space efficiently to generate revenue and that each store had lost its productivity in bringing in income.

In a positive turn, the South African Competition Commission approved the acquisition of Lazarus Ford and Action Ford groups in November 2017 by Unitrans. Unitrans is a subsidiary of Steinhoff.

Steinhoff has been in the news recently for "accounting irregularities" reported. Their share price plunged 96% after this was disclosed. Their CEO who was at the centre of the negative reports resigned in December 2017. As a result of the negative publicity, Steinhoff had to retrench a number of staff members when closing some of their stores.

Unaudited Financial Statements

The unaudited annual condensed consolidated financial statements were presented as at 30 September 2018:

Steinhoff Ltd
Condensed Consolidated half-year statement of consolidated income for the year ended 30 September 2018

		2018 €m	2017 €m
Revenue		9 344	9 888
Cost of sales		(5 699)	(5 829)
Gross profit		**3 645**	**4 059**
Operating income		160	184
Operating expenses	1	(3 958)	(4 295)
Capital items	2	(229)	(124)
Operating loss (EBIT)		**(382)**	**(176)**
Net finance costs		(224)	(165)
Share of profit of equity accounted companies		47	61
Loss before taxation		**(559)**	**(280)**
Taxation		(41)	(90)
Loss for the period		**(600)**	**(370)**

* Assume the condensed statement of comprehensive income as provided fairly represents the financial performance of Steinhoff Ltd.

Note 1

Included in operating expenses was a salary cost of € 1 700 million (2017: 2 400 million)

Note 2

Capital items relate to profits and losses from the sale of investments, subsidiaries, PPE and intangible assets in an attempt to increase cash flows. These are not sustainable and likely not to happen in the near future.

Steinhoff Furniture Stores (Pty) Ltd Potential Sale

Steinhoff had a small subsidiary, Steinhoff Furniture Stores (Pty) Ltd ("SFS" henceforth) that was in the business of buying and selling modern furniture. The company is situated in Australia. In light of the downturn in the economy as well as the poor performance of the group, management decided to strongly consider the sale of this business unit.

SFS had recently undergone a restructuring, as they wanted to run a more lean operation by streamlining staff and processes. The restructuring had not yet seen its full potential but management were prepared to let go of the business before seeing the full results of the restructuring. They had done their research and market analysts were positive that the restructuring would yield positive returns going forward.

The discussion point now with management was what price they were willing to accept from a potential customer for the business. In order to determine this, they needed to value the business. The CFO was a fan of the EBITDA valuation method and has asked you as the junior financial manager to value SFS using this method.

The following accounts were provided to you:

STEINHOFF FURNITURE STORES (PTY) LTD
Condensed Statement of Comprehensive Income
for the year ended 30 September 2018

	Notes	2018 € '000	2017 € '000
Revenue		15 325	15 804
Cost of Sales		(13 097)	(13 470)
Gross Profit		**2 228**	**2 334**
Other income	3	58	46
		2 286	**2 380**
Operating Expenditure			
Operating Costs		(1 898)	(2 006)
Depreciation and Amortisation	4	(128)	(144)
Restructuring Costs		(250)	(26)
Profit on disposal of associate	5	184	-
EBIT		**194**	**204**
Finance Costs	6	(45)	(32)
Net Profit Before Tax		**149**	**172**
Taxation		(28)	(37)
Net Profit After Tax		**121**	**135**

* Assume the condensed statement of comprehensive income as provided fairly represents the financial performance of SFS.

Note 3
Other income relates to income received from property that was sublet to other entities. Other income is net of all expenses and costs relating to the sublet property. The property was the neighbouring building to SFS head office initially purchased as a warehouse for furniture. Since the business was scaled down, the board decided to use this as commercial property to make additional income.

Note 4
Depreciation and amortisation relates to depreciation from office furniture, computers and delivery trucks that SFS has in its books.

Note 5
On 10 May 2017, SFS made the decision to cut ties with an antique furniture manufacturer joint venture that had been part of the business for many years. This was a difficult decision for management but the new strategy to move with the times and target young middle class individuals needed the business to cut ties with the "old school" stigma that SFS had.

Note 6
Finance costs relate to the total debt that the company had obtained in order to implement the new strategy. There had been an increase in loans in the current year to assist with see through the restructuring. The total market value of debt in the business € 600 000 (2017:€ 470 588) as at 30 September 2018. An independent valuator contracted by management when the prospects of sale were finalised valued the loans.

Additional information:

- Commercial property has been yielding returns at 4.5% for the past 5 years. It is expected that this will continue at this rate for the foreseeable future.
- The CFO presented a firm value EBITDA multiple of a listed entity similar to SFS as 6.00x. The CFO wanted to use this EBITDA to value SFS because he believed it represents the multiple of SFS.

Although the scenario is based on a real-life company, significant portions of the scenario is based on fictitious details.

QUESTION 1 (45 MARKS)

REQUIRED (ANSWER IN <u>BLUE</u> BOOK)		MARKS
(a)	Calculate the Net Present Values (NPVs) of the two options available to Adrock and advise the board which option they should choose based on NPVs. *Note: If any amounts are not relevant, include them as zero in the capital budget in order to earn marks for excluding irrelevant cash flows.*	30
(b)	Discuss additional factors that Adrock should take into account when making a decision to convert the Clayville plant	5
(b)	Calculate whether Adrock should buy or lease the diaper assembly machine. Show all calculations.	10
TOTAL MARKS		**45**

QUESTION 2 (35 MARKS)

REQUIRED (ANSWER IN <u>GREEN</u> BOOK)		**Marks**	
		Sub-total	**Total**
(a)	Calculate the budgeted monthly break-even in units (per drum) of the DSAF division in DSA Technical (Pty) Ltd, for October 2018. Ignore the market research option identified and the special order.	(9)	(9)
(b)	Calculate both the minimum and maximum transfer price per litre of mineral oil which will ensure goal congruency. Assume that the selling price of Glide is reduced, as suggested by market research. Ignore the special order to Pinapple Airways. *Communication skills: Layout and structure.*	(16) *(1)*	(17)
(c)	With regards to the special order, explain how you will determine whether DSA should accept the order or not. *For this part of the question, assume DSATL has spare capacity of 50 000ℓ after the market research proposal has been implemented.*	(4)	(4)
(d)	Critically analyse DSA's current organisational structure in terms of the effective execution of their strategy by referring to each divisions organisational structure and whether it is best for that division.	(5)	(5)
	Total		**(35)**

QUESTION 3 **(45 MARKS)**

REQUIRED (ANSWER IN RED BOOK)		**MARKS**
(a)	Analyse and comment on the performance of Steinhoff for the six-month period ended 31 March 2018. In analysing the concern, please address the group CFO's concerns. *Make any adjustments in the calculation to normalise the earnings.*	**24**
(b)	Write a report to the CFO that addresses the following: i) Critically discuss the CFO's view to use the EBITDA multiple of a listed entity to value SFS. ii) Adjust the EBITDA multiple to reflect the risk of SFS iii) Value the equity of Steinhoff furniture stores (Pty) Ltd as at 31 March 2018 as per the CFO's requirements.	**5** **3** **13**
TOTAL MARKS		**45**