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NKUHLU DEPARTMENT OF ACCOUNTING

Financial Management 3

AFM300E

ASSESSMENT OPPORTUNITY
Examination (November 2019)

ASSESSOR:	Mrs Nicola Sansom
MODERATOR - Internal	Mrs Esther Mason
MODERATOR – External	Mr Kevin Freeman
TIME:	4 hours
READING TIME:	30 minutes
MARKS:	160
PAGES:	**14** pages (including front page)

INSTRUCTIONS:

1. Answer **all** the questions.
2. Start each question on a new page.
3. Show all workings clearly – marks are allocated to workings.
4. Only answers in ink will be marked (including workings). Pages where pencil or tippex were used will not qualify for remarking.
5. Only silent, non-programmable calculators are allowed.
6. Students that contravene the rules in the General Prospectus of the University of Fort Hare will be disciplined in accordance with the said rules.

QUESTION	TOPICS COVERED	MARKS	MINUTES
1	Cost of Capital and Capital Budgeting	38	57
2	Valuations	35	53
3	Working Capital	35	53
4	Financial Statement Analysis	18	27
5	Standard Costing and Activity Based Costing	34	50
		160	**240**

QUESTION 1 **38 MARKS: 57 MINUTES**

Please note that this question is made up of two parts – Part A and Part B.

PART A **18 MARKS: 27 MINUTES**

Grabouw Fruit Corporation (Pty) Ltd is a holding company owning shares in various subsidiary companies. The company's head office is situated in the small town of Grabouw in the Western Cape. This small town is the commercial centre for the vast Elgin Valley, the largest single export fruit-producing area in Southern Africa. The subsidiary companies are involved in growing and exporting of various types of fruits – such as apples, pears, plums and nectarines.

The company's directors are currently considering several projects which will increase the range of the business activities undertaken by Grabouw Fruit Corporation (Pty) Ltd and its subsidiaries. The directors would like to use the discounted cash flow techniques in their evaluation of these projects but as yet no weighted average cost of capital has been calculated.

Extracts from the latest Statement of Financial Position are given below.

Grabouw Fruit Corporation (Pty) Ltd and subsidiaries	**Notes**	**Actual 2019 R'000**
Issued share capital	1	2 000
Share premium		1 960
Reserves		3 745
Shareholders' funds		7 705
3% Non-redeemable debentures	2	1 400
9% Redeemable debentures	2	1 500
Bank Loan	3	1 540
Total long term liabilities		4 440

Note 1

- Grabouw Fruit Corporation (Pty) Ltd has authorized share capital of 10 million 25c ordinary shares.
- Of this authorized share capital, 8 million ordinary shares have been issued.
- The current ex div market price per share is R1.10.
- A dividend of R0.10 per share has recently been paid to the shareholders.
- The company has been growing at a 5% rate.

Note 2

- All debt interest is payable annually and all the current year's payments will be made shortly. The current cum interest market prices for R100 nominal value debentures are as follows:
    - 3% Non-redeemable R31.60
    - 9% Redeemable R103.26
- The 9% redeemable debentures are redeemable at par in ten years' time. The redeemable debentures have a current market required return of 15% before tax.

Note 3

- The bank loan bears interest at 2% above the overdraft rate. The current overdraft rate is 10.25%. The loan is repayable in six years. These terms are considered to be market related.

Note 4

- The effective tax rate of Grabouw Fruit Corporation (Pty) Ltd is 28%.

REQUIRED

		Marks
1.1	Calculate the after-tax weighted average cost of capital of Grabouw Fruit Corporation (Pty) Ltd.	18
	TOTAL	18

PART B **20 MARKS: 30 MINUTES**

As part of Grabouw Fruit Corporation (Pty) Ltd's expansion project, the company is considering replacing an existing apple grading machine with a new, more efficient machine. The cost of the new machine is R270 000. The old machine has a tax value of R50 000.

This machine will assist with the grading of the apples and sort them according to their various sizes – without any damage to the fruit. The old machine can be sold for R60 000 today, or for R10 000 in 5 years' time. The estimated useful life of the new machine is 5 years after which it will be sold for R40 000.

<u>Budgeted annual cash flows before tax</u>

	Old Machine Per annum R	**New machine Per annum R**
Sales	100 000	180 000
Cost of Sales		
Variable	56 000	42 000
Fixed	30 000	30 000

Note

- Depreciation has not been included in the above costs.
- Interest repayment on the new machine will be R10 000 per annum.
- The company will borrow 50% of the cash required at 16% from its bankers.
- The company's weighted average cost of capital (WACC) is 13%.
- The current tax rate is 28%. Assume that there is a one year lag in the payment of tax.
- You are to assume that wear and tear for the existing machine and the new machine is to be written-off in full at the end of year 1.

REQUIRED

		Marks
1.2	Determine whether the company should: • continue production on the current basis, or • close down the existing machine and replace this machine with a new, more efficient machine.	 7 7
1.3	Explain the meaning of the following measures, and how it applies to capital budgeting: • Net present value • Internal rate of return	 3 3
	TOTAL	20

QUESTION 2 **35 MARKS: 53 MINUTES**

A terrible drought is currently crippling the economy of the greater Karoo. There is very little water and, when water is available, it is extremely costly. This has had an impact on the tourism sector, the agriculture sector and has, in one way or another, affected every person living in the area.

As a result of this drought, Swartberg Farmers (Pty) Ltd, a group of farmers based in Prince Albert have decided that they would like to sell their majority holding in Swartberg Accommodation (Pty) Ltd. This will allow the farmers to spend more time on their farms, and make the most appropriate farming decisions.

Approximately five years ago, Swartberg Farmers (Pty) Ltd acquired a 70% shareholding in Swartberg Accommodation (Pty) Ltd. Prince Albert had just experienced a record number of visitors to the town. The chairperson of Swartberg Farmers (Pty) Ltd was, at the time, of the opinion that it would be in the best interest of the farmers to diversify into different sectors. The remaining 30% shareholding is held by the current management team.

A marketing and tourism company from Johannesburg, Let's See South Africa (Pty) Ltd, has shown interest in purchasing the majority shareholding.

You, as a corporate adviser, have been approached by the board of directors of Swartberg Accommodation (Pty) Ltd to offer advice on the valuation of the 70% shareholding to be sold. The valuation is to be completed on Friday, 1 November 2019.

The following information for the current year and a forecast for the following two years has been made available to you by Swartberg Accommodation (Pty) Ltd:

Swartberg Accommodation (Pty) Ltd

	Actual 2019 R'000	Forecast 2020 R'000	Forecast 2021 R'000
Revenue	12 600	16 200	19 200
Cash flow statements			
Net cash flow from operating activities	2 224	870	1 195
Cash generated by operations	3 024	4 050	4 800
Net increase in working capital	(550)	(825)	(905)
Cash generated by operating activities	2 474	3 225	3 895
Finance costs	-	(750)	(750)
Taxation paid	(250)	(530)	(450)
Dividends paid	-	(1 075)	(1 500)
Net cash flow from investing activities	(6 100)	(1 750)	(625)
Investment into maintain operations	(750)	(1 200)	(1 350)
Proceeds from sale of fixed assets	-	-	725
Investment to expand operations	(5 350)	(550)	-
Cash flow from financing activities			
Increase in long-term liabilities	5 000	-	-
Increase / (decrease) in cash and cash equivalents	1 124	(880)	570
Cash and cash equivalents at the beginning of the year	5 523	6 647	5 767
Cash and cash equivalents at the end of the year	6 647	5 767	6 337

You have also collected the following data for Swartberg Accommodation (Pty) Ltd:

- Shareholders' equity at 28 February 2019 was R8 million.
- At the end of the 2019 financial year, the company issued 5 000 15% R1 000 debentures at par with no fixed date of redemption.
- Beta coefficient 0.95
- Inflation – this is expected to remain constant in the future 5.5%
- Market risk premium 7.5%
- Risk free rate 12%
- Income tax rate 28%
- The target gearing ratio of the company is 30%. Target gearing ratio has been calculated as long term debt / long term debt + equity.

QUESTION 3 **35 MARKS: 53 MINUTES**

Designer Shoes (Pty) Ltd specialises in the design, manufacturing and distribution of 'Superga' sneakers. These sneakers are made of canvas, with a lace-up front and metal eyelets. The sneakers have a natural rubber crepe-textured outsole.

The crepe-textured outsole is very specific to the sneakers. The stock needs to be managed carefully in order to ensure that there is always stock on hand for production. The company has budgeted for 10 orders of 540 units per order for financial year 1 January 2020 – 31 December 2020.

Details of the costs relating to the budget are as follows:

- The monthly insurance cost is based on an average stock holding of 500 units of the crepe-textured outsole. The cost per unit is R4.
- The cost of the transportation of the crepe-textured outsole from the supplier to the company's warehouse for each 600 unit order is R750. The transporter has advised, that, should the present order size of 600 units be increased to a minimum of 1 000 units, then the cost of transportation will be reduced to R650.
- The variable costs relate to ordering costs.

Budget Income Statement for the Year 1 January 2020 - 31 December 2020

	Units		R	R
Sales	4 200	at	85	357 000
Cost of goods sold				293 000
Opening stock	200	at	65	13 000
Purchases	4 200	at	70	294 000
Closing stock	(200)	at	70	(14 000)
Gross profit				64 000
Purchasing department costs				60 750
Fixed costs				8 400
Fixed warehouse costs				43 000
Insurance				2 000
Transportation				5 250
Variable costs				2 100
Budgeted profit				3 250
Cost of Capital (R14 x 500)				7 000

The management of Designer Shoes (Pty) Ltd is concerned about the division's stock ordering policy. At present, a buffer stock of 200 units is maintained and sales occur evenly throughout the year. Designer Shoes (Pty) Ltd has contracted to buy 4 200 units and, irrespective of the order quantity, will pay for them in equal monthly instalments throughout the year. Transportation costs are to be paid at the beginning of the year. The cost of capital of Designer Shoes (Pty) Ltd is 15% per annum.

REQUIRED

		Marks
3.1	Determine the following: • Ignoring taxation, calculate the optimum order level of stock over a one year planning period using the economic order quantity. • Calculate the change in net profit that will result following the above order quantity.	 9 10
3.2	The financial manager is responsible for the planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. In a brief memo to the financial manager of Designer Shoes (Pty) Ltd, include the following details: • Why would the financial manager have an interest in controlling inventory levels, and • How would he / she set about doing this? • Briefly, outline the risks that the company may experience if they were to move to a JIT inventory system. Presentation and layout.	14 2
	TOTAL	35

QUESTION 4 **18 MARKS: 27 MINUTES**

Rugs (Pty) Ltd is a company situated in South Africa that manufactures and distributes handwoven rugs. The company employs some of the most talented weavers in South Africa - whose skills have been passed down for generations.

The company recently financed the purchase of three new shedding mechanisms for the weaving process. The purchase was financed over three years, and approximately 60% of this has been repaid. A shedding mechanism assists with separating the yarns into two layers by lifting and lowering the shafts, to form a tunnel known as the 'shed'. This is the first of the various processes in weaving, and has for a long time been considered the 'bottleneck' of the operations. The new shedding mechanism should be able to improve the production time, and reduce the costs associated with a finished product.

The company's managing director, Mr Weaver, has approached you, the financial manager, for assistance with a financial statement analysis. He is concerned that above changes have had little impact on the profitability of the business, and also that this has negatively impacted on the liquidity of the company.

He has given you the Statement of Comprehensive Income and Statement of Financial Position for the 2019 and 2018 financial years, as presented below.

Statement of Comprehensive Income for the years ended 28 February

	2019 R'000	2018 R'000
Revenue	6 440	5 600
Cost of sales	5 250	4 500
Gross profit	1 190	1 100
Other income	75	56
Operating expenses	(175)	(115)
Operating profit	1 090	1 041
Interest paid	(35)	(75)
Profit / (loss) before tax	1 055	966
Taxation	(295)	(270)
Profit / (loss) after tax	760	696

Statement of Financial Position at 28 February	2019 R'000		2018 R'000	
Assets				
Non-current assets		1 040		1 120
Properties	800		800	
Other non-current assets	240		320	
Current assets		690		570
Inventories	420		360	
Trade and other receivables	250		180	
Bank balances	20		30	
Total Assets		1 730		1 690
Equity and liabilities				
Capital and reserves		1 145		385
Share capital and premium	380		380	
Accumulated profit	765		5	
Non-current liability				
Long-term borrowing - loan		260		765
Current liabilities		325		540
Trade payables	75		285	
Provisions	113		75	
Current portion of long-term loan	78		100	
Taxation	55		68	
Bank overdraft	4		12	
Total equity and liabilities		1 730		1 690

REQUIRED

		Marks
4.1	Calculate the ratios for 2018 and 2019 in order to assist Mr Weaver with the following:	
	• **Assessment of profitability**	12
	• **Assessment of liquidity**	6
	Comment on your findings.	
	TOTAL	18

QUESTION 5 **34 MARKS: 50 MINUTES**

Car Trimmers (Pty) Ltd is a manufacturing company that is situated in Automotive Supplier Park (ASP) in the Industrial Development Zone in East London. Car Trimmers (Pty) Ltd conducts business with industry leaders, Mercedes Benz.

The company operates and sells a single product. This product is the backing for the main floor carpet of the C-Class Mercedes Benz cars. The company extrudes (mixes) the direct (raw) materials, and then runs this through a press to 'flatten' out the extruded product into long, lengths of backing. Following this, the backing passes through the cutting department, where it is cut into the correct size. The completed product is then transported to another company, Carpets Extreme (Pty) Ltd. Carpets Extreme (Pty) Ltd attach this backing to the actual carpet through a heat process. Following this, the carpet is then moulded to the required shape. Once this cycle has been completed, the carpet is ready for dispatch into the inventory system operated by Mercedes Benz.

The company operates standard absorption costing system and absorbs overheads on the basis of direct labour hours.

The standard selling price and standard costs for one unit of the product are as follows:

		R per unit
Selling price		300
Direct material	15kg @ R9 per kg	135
Direct labour	5 hours @ R12 per hour	60
Variable production overheads	5 hours @ R6 per hour	30
Fixed production overheads	5 hours @ R3 per hour	15
Gross profit		60

The budgeted production and sales for February 2019 was 1 000 units. The fixed overhead absorption rate has been calculated based on budgeted production for the month.

The actual results for February 2019 were as follows:

Production	1 400 units
Sales	1 200 units
Selling price	R306 per unit
Direct materials	22 kg @ R12 per kg
Direct labour	6 800 @ R15 per hour
Variable production overheads	R33 000
Fixed production overheads	R18 000

No material inventories are held.

The Production Director, when questioned about the variances at a recent board meeting explained that, in an attempt to improve the quality of the product, a decision was taken to use a better quality material. In addition to this, it was also decided to replace the semi-skilled labour with skilled labour.

The Production Director believed that the improvement in the quality of the product would enable the company to increase the price of the product and would also result in increased sales volumes.

REQUIRED

		Marks
5.1	Calculate the actual profit for February 2019 based on the information provided.	8
5.2	Reconcile the budgeted profit to the actual profit for month of February 2019 by calculating as many variances as possible.	20
5.3	Fixed overhead absorption rates are often calculated using a single measure of activity. It is suggested that fixed overhead cost should be attributed to cost units using multiple measures of activity (activity-based costing). • Explain what 'activity-based costing' is and how it may provide useful information to managers. • Would activity-based costing be a useful method for Car Trimmers (Pty) Ltd? Motivate your answer.	6
	TOTAL	34