



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF MANAGEMENT SCIENCES

DEPARTMENT OF ACCOUNTING, ECONOMICS AND FINANCE

QUALIFICATION: BACHELOR OF ACCOUNTING	
QUALIFICATION CODE: 07BAC	LEVEL: 7
COURSE CODE: MFN710S	COURSE NAME: MANAGERIAL FINANCE 320
SESSION: NOVEMBER 2019	PAPER: THEORY AND CALCULATIONS
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	E. Mushonga and L. Odada
MODERATOR:	A. Makosa

INSTRUCTIONS
<ul style="list-style-type: none">• Answer ALL the questions in blue or black ink only. STRICTLY NO PENCIL• Start each question on a new page, number the answers correctly and clearly.• Show all your workings/calculations and round all calculations to two decimal places• Questions relating to this examination may be raised in the initial 30 minutes after the start of the paper. Thereafter, candidates must use their initiative to deal with any perceived error or ambiguities and any assumptions made by the candidate should be clearly stated.

PERMISSIBLE MATERIALS

- Silent, non-programmable calculators

THIS QUESTION PAPER CONSISTS OF 6 PAGES (Including this front page)

QUESTION 1**[25 MARKS]**

Van Schaik Bookstore has a proud heritage as one of the oldest bookstores in southern Africa and reached their 100-year milestone in 2014. It is arguably Southern Africa's leading academic bookstore chain with more than 70 stores located in South Africa, Botswana, Swaziland and Namibia. In addition to these outlets they have several seasonal sales points, online sales through their website and a library supply service. Van Schaik Bookstore has experience in optimally servicing institutions, professionals and students by deploying the most appropriate sales channel required. Academic materials and associated products are supplied to an institution on campus or in some instances, a customized selling platform can be crafted in recognition of the diverse environments they serve. By maximizing Van Schaik Bookstore's resources and vast experience, they are able to deliver a service to the institutions, staff and students comparable with the very best in the world. Their excellence has been recognized by the garnering of industry awards such as the prestigious Sefika Academic Bookseller of the Year Award from 2012 to 2017.

Van Schaik Bookstore Managing Director (MD) is looking to expand the interests of Van Schaik Bookstore by purchasing interest in either Allan Grey or Investec Namibia. The MD believes that the expected returns from the acquisition of either of the two asset management companies is dependent on the state of the economy. The following information is made available:

State of economy	Probability	Estimated Returns		
		ALLAN GREY	INVESTEC	MARKET
Boom	0.3	16%	20%	14%
Recession	0.4	10%	12%	8%
Depression	-	2%	0%	6%
Book value in million	-	N\$12 000 000	N\$8 000 000	-
Market value	-	N\$8 000 000	N\$12 000 000	-
Covariance with the market	-	0.0024	0.0023	-

The risk-free rate is 5% and there is no company or personal taxation.

REQUIRED:	MARKS
a) Calculate the standard deviation of Allan Grey, Investec and the market	12
b) If Van Schaik Bookstore could only invest in one of the two companies, which one would you advise them to select? Motivate your answer with appropriate calculations.	4
c) Determine the expected return together with the risk of the portfolio, if Van Schaik Bookstore invests in both companies to form a portfolio.	9
TOTAL MARKS	25

QUESTION 2**[25 MARKS]**

Areva Resources Namibia Ltd. undertook a project involving the construction of a seawater desalination plant near Swakopmund. The project was completed on 01 January 2017 at a cost of N\$10 000 000. The directors of Areva Resources believe their multi-million-dollar project shall be able to supply all the water to be consumed at some 40km into the desert. After 5 years, the company has an obligation to dismantle and restore the environment in compliance with both the Ministry of Marine Resources & Fisheries and the Ministry of Environment & Tourism regulations. Management of Areva Resources has established that the cost of dismantling and restoration of the environment was N\$4 000 000 on 1 January 2017. Areva Ltd. would want to evaluate several investment opportunities as well as to understand the overall risk of their assets as perceived by the market. Accordingly, the directors have set out to calculate the weighted average cost of capital (WACC) for the company. The assets of the company are currently financed by equity, bonds and preference shares. The details are as follows:

Debt: The company issued 10 000 bonds that are currently outstanding with a 6% annual coupon rate. The bonds mature in eight years and have a N\$1 000 face value. These bonds are currently trading in the market for N\$1 100.

Preference shares: The company also has in issue 3% Preference shares with a par value of N\$100 each amounting to 100 000 shares. These preference shares are perpetual shares that are not redeemable at any time. The preference shares are currently selling for N\$30 per share in the market.

Equity: The company has 500 000 shares currently selling for N\$25 each in the market. The shares have a beta of 1.5. The risk-free rate is 4%, and the expected market return is 12%. Recently, the company paid a dividend of N\$2.32 per share and management expect that the growth in dividends will be 6% per share, forever. Tax rate is 20%.

REQUIRED		MARKS
a)	Estimate the pre-tax cost of debt as well as the after-tax cost of debt.	6
b)	Calculate the cost of the company's preference shares.	3
c)	Determine the cost of equity using the Dividend Growth Model	3
d)	Determine the cost of equity applying the Capital Asset Pricing Model (CAPM)	3
e)	Calculate the Weighted Average Cost of Capital using the CAPM for the cost of equity	7
f)	State any three reasons for calculating the WACC	3
TOTAL MARKS		25

QUESTION 3**[20 MARKS]**

Build It is a division of the SPAR Group Limited South Africa. A voluntary trading group of individually owned retail stores with more than 10 000 employees across the group. They currently have stores in South Africa, Namibia, Swaziland, Lesotho and Mozambique with plans to expand into Botswana and Zambia in the near future. With each of their stores being owner run and managed, their customers can be assured of the best possible service and advice. They view themselves not only as a supplier of materials, but as a partner to their valued customers in accomplishing their building or renovating projects. Build It produces one product, an angle grinder. Last year, 50 000 grinders were sold at N\$20 each. The income statement of Build It for the year ended December 31st, 2018 is as follows:

Build It Income Statement for the year ended December 31st, 2018

	N\$	N\$
Sales		1 000 000
Less variable costs	(400 000)	
Fixed costs	<u>(200 000)</u>	<u>(600 000)</u>
EBIT		400 000
Less interest		<u>(125 000)</u>
Net income before tax		275 000
Income tax at 40%		<u>(110 000)</u>
Net income		<u>165 000</u>
 Earnings per share (100 000 shares)		 <u>1.65</u>

Build It is considering changing to a new production process in 2019 from manufacturing the grinders. Highly automated and capital intensive, the new process will double fixed costs to N\$400 000 but will decrease variable costs to N\$4 per unit. If the new equipment is financed with bonds, interest will increase by N\$70 000; if it is financed by ordinary shares, total shares outstanding will increase by 20 000 shares.

REQUIRED:	MARKS
(a) Calculate the following for Delta's Ltd 2018 level of sales <ul style="list-style-type: none"> (i) The degree of operating leverage (ii) The degree of financial leverage (iii) The combined leverage effect 	6
(b) If sales remain constant, calculate for each of the two proposed financing method: <ul style="list-style-type: none"> (i) The earnings per share (ii) The combined leverage effect. 	14
TOTAL MARKS	20

QUESTION 4**[30 MARKS]**

Founded in 1970 by Bennie Joseph and Karel Snyman, Joseph & Snyman is a fully autonomous Namibian Company. They have more than 40 years of experience in the buying, selling and management of property. Joseph & Snyman acts as property managers for a vast variety of landowners ranging from private investors to financial institutions both from within the borders of Namibia as well as from neighbouring countries. Through this association with investors from all walks of life, Joseph & Snyman has acquired experience in and knowledge of different approaches to property investments and can therefore advise potential investors best on the acquisition and management of fixed property. Joseph & Snyman manages a large number of commercial and industrial properties with a gross lettable area in excess of ±300 000 m² and a value of over N\$4.5 billion. With an acute knowledge of the local property market and hands on approach to managing assets, Joseph & Snyman's management team is well positioned to remain at the forefront of the property management field in Namibia. With added services like valuations, appraising, letting of properties and consulting, Joseph & Snyman must be the first choice for any client's one stop property needs.

The following information relating to Joseph & Snyman has been made available to you:

Statement of comprehensive income (extract) for the year ended 30 June 2018

	N\$
Revenue	1 200 000
Cost of sales	(920 000)
Gross profit	280 000
Operating expenses	(120 000)
Operating profit	160 000
Interest expense	(20 000)
Profit before tax	140 000
Taxation	(54 200)
Profit after tax	85 800
Dividends paid	40 000

Statement of financial position as at 30 June	2018	2017
ASSETS		
Non-current assets		
Property plant and equipment	540 000	570 000
Current assets		
Inventory	164 000	100 000
Accounts receivable	68 200	84 400
Cash and cash equivalents	44 400	48 000
Total assets	816 600	802 400

EQUITY AND LIABILITIES

Ordinary share capital (100 000 shares)	220 400	240 000
Retained earnings	146 200	100 400
Equity	366 600	340 400
Non-current liabilities		
Long-term debt	300 000	320 000
Current liabilities		
Accounts payable	114 000	98 000
Accrued expenses	36 000	44 000
	816 600	802 400

The following are the industry average ratios:

- Net profit margin 8%,
- Current ratio 2.5
- Acid test ratio 1.0
- Return on assets 12.2%
- Return on equity 28.5%
- Earnings per share N\$0.63

REQUIRED:	MARKS
a) Compare the profitability of Joseph & Snyman to that of the average of the industry for the year ended 30 June 2018.	9
b) Calculate the measures of short-term solvency (liquidity) and the debt ratio. Briefly comment on the position of Joseph & Snyman in 2018 in relation to the industry	9
c) Calculate and comment on the Joseph & Snyman's cash conversion cycle and suggest two ways this cycle could be improved.	12
TOTAL MARKS	30

END OF EXAMINATION QUESTION PAPER