



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMMERCE, HUMAN SCIENCES, AND EDUCATION**

**DEPARTMENT OF ECONOMICS, ACCOUNTING, AND FINANCE**

<b>QUALIFICATION: BACHELOR OF ACCOUNTING</b>	
<b>QUALIFICATION CODE: 07BOAC</b>	<b>LEVEL: 7</b>
<b>COURSE CODE: MFN710S</b>	<b>COURSE NAME: MANAGERIAL FINANCE 320</b>
<b>SESSION: NOVEMBER 2023</b>	<b>PAPER: THEORY AND CALCULATIONS</b>
<b>DURATION: 3 HOURS</b>	<b>MARKS: 100</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINERS</b>	Alina Gustav and Lameck Odada
<b>MODERATOR:</b>	Alfred Makosa

<p style="text-align: center;"><b>INSTRUCTIONS</b></p> <ol style="list-style-type: none"><li>1. This examination question paper consists of <b>FOUR (4)</b> questions</li><li>2. Answer ALL the questions in blue or black ink only. <b>NO PENCIL.</b></li><li>3. Start each question on a new page, number the answers correctly and clearly.</li><li>4. Write clearly, and neatly showing all your workings/assumptions.</li><li>5. Work with at least four (4) decimal places in all your calculations and round off only final answers to two (2) decimal places.</li><li>6. Questions relating to this examination may be raised in the initial 30 minutes after the start of the examination. Thereafter, candidates must use their initiative to deal with any perceived errors or ambiguities and any assumptions made by the candidate should be clearly stated.</li></ol>
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**PERMISSIBLE MATERIALS**

1. Silent, non-programmable calculators

**THIS QUESTION PAPER CONSISTS OF \_6\_ PAGES (excluding this front page)**

**QUESTION 1****[30 MARKS]**

Namibia Country Lodges (hereafter NCL) is a truly Namibian hospitality company. They provide their guests with unmatched experiences at unique properties with a true sense of place in the landscape. Staying at one of their lodges is a once-in-a-lifetime experience that is grounded in genuine, warm hospitality and a love of the land they come from. Developing a passionate and dedicated team is foremost in their philosophy, as only a great team can provide their guests with a first-class experience. They continually pursue excellence by enhancing our skills and evolving with the hospitality and tourism industry of Namibia. NCL is looking to expand its hospitality and tourism interest in Namibia by investing in two companies in the hospitality and tourism sector. NCL can invest 400 000 Namibia dollars in one of the two companies or a portfolio of the two companies. The following risk/return profiles have been provided.

Economic State	Probability (%)	Estimated Returns (%)		Market
		SLM Safaris	ATI Holidays	
Recession	30	2	25	-
Boom	50	10	22	-
Depression	20	12	-2	-
Expected return		-	-	12%
Standard deviation		-	-	6%
Covariance with the market		25.2	39.6	-
The risk-free rate is 3% per annum and there is no company or personal taxation.				

REQUIRED		MARKS
a)	Calculate the expected returns together with the risk of SLM Safaris and ATI Holidays.	<b>6</b>
b)	If NCL is to select only one company to invest in, which one would you advise NCL to select? Motivate your answer with appropriate calculations.	<b>2</b>
c)	Determine the expected return together with the risk of the portfolio, assuming that NCL invests 160 000 Namibia dollars in SLM Safaris. Advise NCL on whether to invest in the portfolio or not.	<b>10</b>
d)	Calculate the required return for both companies according to the Capital Asset Pricing Model (CAPM). Explain which of the two companies you would advise NCL to invest in.	<b>10</b>
e)	Identify and two (2) limitations of the Capital Asset Pricing Model (CAPM).	<b>2</b>

**QUESTION 2****[25 MARKS]**

Cleanergy Solutions Namibia, a joint venture between the Ohlthaver & List (O&L) Group and CMB.TECH, announced the bricklaying of Africa's first public green hydrogen refuelling station. The hydrogen production plant established in Walvis Bay, Namibia, uses solar energy for hydrogen production onsite. This innovative facility will supply hydrogen to trucks, port equipment, and railway applications. As an integral part of this project, a Hydrogen Academy will be established to educate and train local individuals on hydrogen technology and its wide-ranging applications. The hydrogen refuelling station is expected to be fully operational by mid-2024.

The Directors of Cleanergy Solutions Namibia have set out to calculate the Weighted Average Cost of Capital (WACC) for the company. The assets of the company are currently financed as detailed below: Cleanergy Solutions Namibia issued corporate bonds with a coupon rate of 8%. The face value is N\$100 and the bonds are stated on the statement of financial position at its total par value of N\$80m. The bonds are currently trading at a price of N\$94. Interest is payable annually in arrears. The maturity date is in five years' time. Cleanergy Solutions Namibia has also issued variable loan finance of N\$10m at a current interest rate of 9% per year.

Cleanergy Solutions Namibia has 200 000 non-redeemable preference shares which were issued at a price of N\$100 each. Preference dividends are payable annually in arrears. The non-redeemable preference shares are currently priced at N\$106. The dividend rate is 7.8% and Cleanergy Solutions Namibia has recently paid the preference dividends for the current year.

Cleanergy Solutions Namibia has an equity beta of 1.15 (based on a similar listed company after making all necessary adjustments), and the risk-free rate is 6%. Cleanergy Solutions Namibia uses a market premium of 6.5% as this is the average between 5-8% which is the range of the market risk premium recommended by some analysts. The current share price is N\$3.20 and Cleanergy Solutions Namibia has 30 million ordinary shares in issue. The corporate tax rate is 30%

REQUIRED		MARKS
a)	Explain the meaning of WACC in your own words	4
b)	Calculate the market value of the bonds and the after-tax cost of debt	4
c)	Calculate the market value and the cost of preference shares	3
d)	Calculate the market value and the cost of equity using CAPM	3
e)	Estimate the WACC for Cleanergy Solutions Namibia. <i>Round off the weights to the nearest whole number</i>	6
f)	Identify any five (5) limitations of the Dividend Growth Model	5

**QUESTION 3****[25 MARKS]**

Financial analysis is the process of examining a company's performance in the context of its industry and economic environment to arrive at a decision or recommendation. Often, the decisions and recommendations addressed by financial analysts pertain to providing capital to companies. Fundamental financial analysis starts with the information found in a company's financial reports. The following information relating to the Airport Lodge has been made available to you.

**Statement of comprehensive income (extract) for the year ended 30 June 2023**

	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 2023**

	N\$
<b>Non-current assets</b>	
Property plant and equipment	540 000
<b>Current assets</b>	
Inventory	164 000
Accounts receivable	68 200
Cash and cash equivalents	44 400
<b>TOTAL ASSETS</b>	<b>816 600</b>
Ordinary share capital (100 000 shares)	220 400
Retained earnings	146 200
<b>Equity</b>	<b>366 600</b>
<b>Non-current liabilities</b>	
Long-term debt	300 000
<b>Current liabilities</b>	
Accounts payable	114 000
Accrued expenses	36 000
<b>EQUITY AND LIABILITIES</b>	<b>816 600</b>

REQUIRED		MARKS
a)	Compute the five (5) profitability ratios of Airport Lodge.	5
b)	Calculate the two (2) key liquidity ratio of Airport Lodge.	2
c)	Determine the cash conversion cycle of Airport Lodge.	4
d)	Identify and explain the five (5) factors that credit managers should consider before granting a credit facility to a potential customer.	10
e)	Identify and discuss any two (2) limitations of ratio analysis.	4

**QUESTION 4**

**[20 MARKS]**

The time value of money is a financial principle that states the value of a dollar today is worth more than the value of a dollar in the future. This philosophy holds true because money today can be invested and potentially grow into a larger amount in the future.

<i>Work with whole numbers throughout your calculations</i>		MARKS
a)	Penda is a young Financial Director of a listed company. Although he enjoys his work, he wants to retire at the age of 55 (in 30 years' time) and will require a monthly income of N\$20 000 for 10 years after retirement date. If the return he can obtain is 12% per annum with interest compounded monthly, how much should Mr Miller contribute every month for the next 30 years to obtain an annuity of N\$20 000 per month for 10 years after the retirement date?	10
b)	Amortization is an accounting technique used to periodically lower the book value of a loan or an intangible asset over a set period. Concerning a loan, amortization focuses on spreading out loan payments over time. You are about to take out a 30-year fixed-rate mortgage. The terms of the loan specify an initial principal balance of two million Namibia dollars and an effective annual rate of 6.75 percent. Payments will be made monthly. Draw a loan amortization table for the first six months of the loan.	10

**END OF EXAMINATION QUESTION PAPER**