NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF MANAGEMENT SCIENCES

DEPARTMENT OF ACCOUNTING, ECONOMICS AND FINANCE

QUALIFICATION: BACHELOR OF TECHNOLOGY IN ACCOUNTING AND FINANCE	
QUALIFICATION CODE: 23BACF	**LEVEL: FOURTH YEAR**
COURSE CODE: MAF412S	**COURSE NAME: MANAGERIAL FINANCE 4B**
SESSION: JANUARY 2019	**PAPER: THEORY AND CALCULATIONS**
DURATION: 3 HOURS	**MARKS: 100**

SECOND OPPORTUNITY EXAMINATION PAPER	
EXAMINER	**E. MUSHONGA**
MODERATOR:	**G. BOWA**

INSTRUCTIONS

1. Answer all questions.
2. Write clearly and neatly.
3. Queries relating to this paper 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 assumption made by the candidate should be clearly stated.
4. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Examination paper.
2. Examination script.
3. Non-programmable calculator

THIS QUESTION PAPER CONSISTS OF 4 PAGES (Excluding this front page)

QUESTION 1: **26 marks**

Cape Structure Ltd's sales for the year ended 28 February 2012 amounted to 100 000 units. Its selling price was N$7.50 per unit, its variable operating costs are N$3.00 per unit, and its fixed operating costs are N$250 000. Annual interest charges total N$80 000 and the firm has 8 000 shares of N$5 (annual dividend) preference shares issued. It currently has 20 000 ordinary shares issued. Assume that the firm is subject to a 30% tax rate.

1.1

(a) At what level of sales (in units) would the firm break even on operations? *(3 Marks)*

(b) Calculate the firm's earnings per share (EPS) in tabular form at (1) the current level of sales and (2) a 120 000-unit sales level. *(5 Marks)*

(c) Using the current N$750 000 level *of* sales as a base, calculate the firm's degree of operating leverage (DOL). *(3 marks)*

(d) Using the EBIT associated with the N$750 000 level *of* sales as a base, calculate the firm's degree of financial leverage (DFL). *(3 Marks)*

(e) Use the degree of total leverage (DTL) concept to determine the effect (in percentage terms) of a 50% increase in TOR's sales from the N$750 000 base level on its earnings per share. *(3 Marks)*

1.2

Assume a firm's earnings before interest and tax (EBIT) is N$200 000, the tax is 30% while debt is N$500 000 and costs 12%. Its unlevered cost of capital is 20%. Applying the M and M Theory with taxes, compute the following:

(a) Calculate the value of the firm levered. *(3 Marks)*

(b) Calculate the levered firm's WACC. *(6 Marks)*

QUESTION 2: **24 marks**

Part 1.

Bradbury Corporation turns its inventory five times each year, has an average payment period of 25 days, and has an average collection period of 32 days. The firm's annual sales are N$3.6 billion, its cost of goods sold represents 80% of sales, and its purchases represent 80% of the cost of goods sold. Assume a 365-day year.

Required:

1.1 Calculate the firm's operating cycle and cash conversion cycle. *(4 marks)*

1.2 Calculate the total resources invested in the firm's CCC. *(8 marks)*

Part 2.

LightSpeed Products buys 200 000 motors per year from a supplier that can fulfil orders within two days of receiving them. LightSpeed transmits its orders to this supplier electronically, so the lead time to receive orders is two days. LightSpeed's order cost is about N$295 per order and its carrying cost is about N$37 per motor per year. The firm maintains a safety stock of motors equal to six days of usage. Assume a 365- day year.

Required:

2.1 What is the firm's economic order quantity for the motors *(3 marks)*

2.2 What is its total cost at the EOQ? *(3 marks)*

2.3 How large a safety stock (in units) of motors should Litespeed maintain?

(3 marks)

2.4 What is Litespeed's re-order point for motors? *(3 marks)*

QUESTION 3 **26 marks**

Starve Ltd has estimated its sales and purchase requirements for the last half of the coming year. Past experience indicates that it will collect 20 percent of its sales in the month of the sale, 50 percent of the remainder 1 month after the sale, and the balance in the second month following the sale. Starve Ltd prefers to pay for half its purchases in the month of purchase and the other half in the following month. The labour expense for each month is expected to equal 5 percent of that month's sales, with cash payment being made in the month in which the expense is incurred.

Depreciation expense is N$ 5 000 per month; miscellaneous cash expenses are N$4 000 per month and are paid in the month incurred. General and administrative expenses of N$50 000 are recognised and paid monthly. A N$60 000 truck is to be purchased in August and is to be depreciated on a straight line basis over 10 years with no expected salvage value. The company is also expected to pay a N$9 000 cash dividend to its shareholders in July. The company feels that a minimum cash balance of N$30 000 should be maintained. Any borrowing will cost 12 percent annually, with interest paid in the month following the month in which the funds are borrowed. Borrowing takes place at the beginning of the month in which the need for funds arises. Cash on hand as on June 30 was N$30 000. Actual and estimated sales and purchases are shown as follows:

Month	**Sales (N$)**	**Purchases (N$)**
Actual		
May	100 000	60 000
June	100 000	60 000
Estimated		
July	120 000	50 000
August	150 000	40 000
September	110 000	30 000

Required
Prepare a cash budget for Starve Ltd for the months of July and August.

QUESTION 4 **24 marks**

PDK Ltd is a medium sized listed company. The results to 30 June 2018 have just been announced. Earnings per share (EPS) and declared dividends per share (DPS) for the last five years are shown below:

	2018	2017	2016	2015	2014
EPS (cents)	140	136	131	127	122
DPS (cents)	82	81	79	78	77

Dividends are paid on 30 June each year and the dividend shown as declared in a particular year would have been or will be on 30 June the following year. If the current dividend policy is maintained, the directors of PDK Ltd estimate that annual growth in earnings and dividends would be no greater than the average growth in earnings over the past four years.

PDK is reluctant to take on debt at the present time to finance growth. The company is therefore considering a change in its dividend policy and total investment programme to allow 50% of its earnings to be retained for identified capital investment projects that are estimated to have an average post -tax return of 15%. The market risk premium is expected to be 4% over the risk-free rate of 6%. The company beta is currently quoted at 1.5 and is not expected to change for the foreseeable future.

Required

4.1 Using whatever model(s) you think appropriate, calculate the share price that might be expected by the market. *(21 marks)*

4.2 Discuss the reasons why the share price might react differently from the market's expectations?. *(3 marks)*

END OF PAPER