

UNIVERSITY OF FORT HARE

**FINANCIAL MANAGEMENT
BEC313/BEC313E
JULY SUPPLEMENTARY EXAM**

DEGREE EXAMINATIONS

JULY 2023

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Time: 3 Hours

Subject: BEC313/BEC313E

Marks: 100

This paper consists of 11 pages including the cover page

Internal Examiners

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External Examiner

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INSTRUCTIONS

- 1. Answer all questions in section A and any three questions in section B.**
- 2. For section A please use the multiple choice answer sheet attached in the question paper.**
- 3. On completion, please hand in your answer sheet together with your examination script.**
- 4. Write clearly and legibly.**
- 5. Round up final answers to two decimal places where applicable.**

SECTION A: THIS SECTION IS COMPULSORY

QUESTION 1 MULTIPLE CHOICE QUESTIONS (25 MARKS)

1. A particular stock has a beta of 1.4 and an expected return of 13%. If the expected risk premium on the market portfolio is 6%, what is the risk free rate?

- a. 10.6%
- b. 4.6%
- c. 8.4%
- d. 9.3%

2. Investors can eliminate what type of risk by diversifying?

- a. systematic risk
- b. unsystematic risk
- c. beta risk
- d. total risk

3. Winnie Ltd has a capital structure that consists of 30% debt and 70% equity. The company's cost of debt is 7%. The company has a beta of 1.9. The risk free rate equals 4.5% and the expected return on the market portfolio is 15%.

Assuming no taxes, what is Winnie's Ltd WACC?

- a. 7%
- b. 19.22%
- c. 24.45%
- d. 17.12%

4. The Capital Structure Information for Lincon Ltd is shown below

Debt (in million)	R25
Preferred Stock (in million)	R 5
Common Stock (in million)	<u>R45</u>
Total Capital	R75

Cost of debt	8%
Annual Preferred Stock Dividend	R 2.50
Preferred Stock Market Price	R16.13
Common Stock Beta	0.85
Risk free rate	3.75%
Expected return on market portfolio	17.55%

What percentage of Lincon Ltd capital structure consists of total equity?

- a. 6.67%
- b. 60.00%
- c. 33.33%
- d. 66.67%

5. Capital budgeting must be placed on an incremental basis. This means that ____ must be ignored and _____ must be considered.

- a. sunk cost; opportunity cost
- b. sunk cost; financing cost
- c. cannibalization; opportunity cost
- d. opportunity cost; net working capital

6. Which statement is FALSE regarding WACC and its components?

- a. The dividend paid on preference shares is not tax deductible
- b. The WACC is often used as the discount rate when evaluating suitable investment opportunities.
- c. For an all-equity firm, the cost of equity equals the WACC.
- d. The interest paid on debt is not tax deductible

7. A high degree of operating leverage suggests that

- a. a small percentage increase in sales leads to a large percentage increase in earnings before interest and taxes.
- b. a small percentage increase in sales leads to an identical percentage increase in earnings before interest and taxes.
- c. a large percentage increase in sales leads to a small percentage increase in earnings before interest and taxes.
- d. none of the above.

8. MugMaker has discovered that its fixed costs are R100,000 per month. If MugMaker sells its mugs for R35 per unit based upon a cost of R15 per unit to manufacture (variable costs) then how many mugs per year must MugMaker sell in order to break-even?

- a. 5,000
- b. 34,286
- c. 60,000
- d. None of the above

9. If a company decides to change one input at a time in its net present value analysis, in order to measure the NPV impact of such a change then the firm is performing

- a. a Monte carlo simulation.
- b. scenario analysis.
- c. a sensitivity analysis.
- d. none of the above

10. Suppose that an investor bought a bond last year for R980. The bond pays a 7% annual coupon and has a face value of R1,000. Today, the same bond is selling for R960.

If the investor sells the bond this morning, what is the total rand return of the investment?

- a. -R40
- b. R30
- c. R50
- d. R70

11. What will my investment of R100 500 be worth if my bank pays me simple interest of 9% per annum and I invest my money for 180 days?

- a. R4 460,55
- b. R96 039,45
- c. R100 550,25
- d. R104 960,55

12. What is the effective annual rate if an annual nominal rate of 12% is compounded quarterly?

- a. 8.55%
- b. 8.24%
- c. 12.55%
- d. none of the above.

13. A bank account has an annual rate of 12% with semi annual compounding. What is the EAR for the account? (effective annual rate)

- a. 3.00%
- b. 12.00%
- c. 12.36%
- d. 12.55%

14. A 15 year, 8%, R1000 face value bond is currently trading at R958. The yield to maturity of this bond must be

- a. less than 8%.
- b. equal to 8%.
- c. greater than 8%.
- d. unknown.

15. Bavarian Sausage just issued a 10 year 12% coupon bond. The face value of the bond is R1,000 and the bond makes annual coupon payments. If the required return on the bond is 10%, what is the bond's price?

- a. R1,122.89
- b. R815.26
- c. R1,000.00
- d. R1,124.62

16. Which of the following accounts is a current asset?

- a) PPE
- b) Trade and other receivables
- c) Trade and other payables
- d) Retained earnings

17. The accounting equation may not be expressed as:

- a) $\text{Liabilities} = \text{Assets} - \text{Equity}$
- b) $\text{Equity} = \text{Assets} - \text{Liabilities}$
- c) $\text{Assets} = \text{Liabilities} + \text{Equity}$
- d) $\text{Assets} = \text{Liabilities} - \text{Equity}$

18. An ordinary annuity is a

- a) Stream of unequal payments that occurs at the end of a period
- b) Stream of equal payments that occurs at the end of a period
- c) Stream of equal payments that occurs at the beginning of a period
- d) Stream of unequal payments that occurs at the beginning of a period

19. A bond pays R60 interest payments twice a year. What is the coupon rate for the bond if the par value of the bond is R1,000?

- a. 6.00%
- b. 9.00%
- c. 12.00%
- d. 15.00%

20. An investor is given the opportunity of investing R100 today with a promised future value of R310.6 in 10 year's time. At what rate is the investment accruing compound interest?

- a. 8.00%
- b. 10.00 %
- c. 12.00%
- d. 15.00%

21. What term refers to the number of shares issued by a firm multiplied by the current price of the shares ?

- a. Financial leverage
- b. Market value
- c. Additional paid-in capital
- d. Book value

22. A share of preferred stock pays a R2 annual dividend, Investors seek a 12% annual percentage return on the investment. What price should the preferred stock trade?

- a. R4.17
- b. R6.67
- c. R8.50
- d. R16.67

23. An amount of R100 is invested for ten years at a rate of 12% per annum compound interest. What is the value of the investment at the end of ten years?

- a. R310.58
- b. R410.58
- c. 420.58
- d. R260.54

24. The purpose of scenario analysis is best described as the ...

- a) evaluation of all possible cash flow forecasts
- b) evaluation of all possible contingencies
- c) close analysis of highly negative net present value projects
- d) development of a range of potential outcomes from a particular project

25. The specified date on which the principal amount of a bond is payable is referred to as which one of the following?

- a) coupon date
- b) yield date
- c) Maturity
- d) dirty date

SECTION B ANSWER ANY 3 QUESTIONS

QUESTION 2 (25 MARKS)

The 2022 standardised financial statements of Quest Ltd. are as follows:

Statement of financial position	
Assets	2022
Property, plant and equipment (PPE) at cost price	80 000
Accumulated depreciation	(16 000)
PPE at carrying value	64 000
Investment in shares	32 250
Other long-term assets	12 000
Non-current assets	108 250
Inventories	22 630
Trade receivables	25 040
Cash and cash equivalents	27 330
Current assets	75 000
Total assets	183 250
Equity and liabilities	
Share capital	75 000
Reserves	8 050
Retained earnings	22 000
Ordinary shareholders' equity	105 050
Preference shares	15 000
Shareholders' equity	120 050
Total equity	120 050
Long-term debentures	20 000
Long-term debt	10 000
Non-current liabilities	30 000
Trade payables	25 200
Tax payable	1 800
Dividends payable	6 200
Current liabilities	33 200
Total equity and liabilities	183 250

Statement of comprehensive income	2022
Turnover	150 000
Cost of sales and services rendered	(90 000)
Gross profit	60 000
Operating expenses	(23 510)
Operating profit	36 490
Investment income	3 510
Finance cost	(2 800)
Profit before tax	37 200
Tax	(11 160)
Profit after tax	26 040
Preference share dividends	(6 000)
Attributable earnings	20 040
Ordinary dividends	(3 700)
Retained earnings (for the year)	16 340

Additional information:

- Purchases on credit for the year amount to R80 000
- Lease payments of R7 000 were made during the year.
- Assume that there are 360 days per year.

You are required to:

Calculate the following ratios:

- | | |
|--|-----|
| 2.1. Return on assets | (2) |
| 2.2. Return on equity | (2) |
| 2.3. Return on ordinary shareholders' equity | (2) |
| 2.4. Gross profit margin | (2) |
| 2.5. Net Profit margin | (2) |
| 2.6. Fixed Asset turnover | (2) |
| 2.7. Inventory turnover | (2) |
| 2.8. Current ratio | (2) |
| 2.9. Quick ratio (acid test ratio) | (2) |
| 2.10. Trade receivables collection period | (2) |

- 2.11. Trade payables payment period (2)
- 2.12. Debt–equity ratio (2)
- 2.13. Interest coverage ratio (1)
- (25)

QUESTION 3 (25 MARKS)

- 3.1 Explain the differences between the cost of ordinary shares and the cost of preference shares (5)
- 3.2 Discuss items that are included in the income statement (10)
- 3.3 The following information is available for Texas Limited.

Current share price on the securities exchange	R3.60
Current years dividend per share	R0.20
Expected annual growth rate of dividends	10%
Beta coefficient of Texas	0.9
Expected returns on risk-free securities	10%
Expected return on the market portfolio	15%

Required:

Calculate the cost of equity capital for the data given above using the dividend growth model and the capital asset pricing model (10)

(25)

Question 4 (25 Marks)

- a) With the use of practical examples discuss the concept of breakeven in finance. (4)
- b) Calculate breakeven number of units and rands amount if selling price per unit is R6.00, variable cost per unit is 3.50 and the fixed cost is R120 000. (4)
- c) The following information is available for Joel ltd:

Current price per share	R2.00
Current year's dividends per share	R0.10
Expected average annual growth rate of dividends	7 %
Beta coefficient for Joel ltd	0.80
In addition the following information has been established	
Expected rate of return on risk free securities	8%
Expected return on the market portfolio	12%
The before tax cost of debt	10%
Marginal Tax rate	35%
Total value of the firm	1000 000
Value of equity	650 000
Value of debt	450 000

Calculate the cost of debt and cost of equity capital for Joel Ltd from the data given above, using the following two alternatives.

1. Divided growth model (4)
2. Capital asset pricing model (4)
3. After tax cost of debt (3)
4. Calculate the weighted average cost of capital of Joel Ltd. In your calculation use the cost of equity from the dividend growth model. (6)

(25)

QUESTION 5 (25 MARKS)

5.1 Too little working capital and too much working capital are not optimal, discuss this in terms of risk and return. (15)

5.2 Working capital policy requires managerial attention in the manner which they are financed. Discuss any two working capital policies in finance. (10)

(25)

Multiple choice answer sheets

Surname and initials.....

Student number

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PLEASE MARK THE ANSWER WITH AN X

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