

| FACULTY/COLLEGE | College of Business and Economics |
| :--- | :--- |
| SCHOOL | School of Accounting |
| DEPARTMENT | Commercial Accounting |
| CAMPUS(ES) | SWC |
| MODULE NAME | Cost and Financial Management |
| MODULE CODE | CFM22A2 |
| SEMESTER | First |
| ASSESSMENT OPPORTUNITY, <br> MONTH AND YEAR | Final Summative Assessment Opportunity <br> June 2019 |


| ASSESSMENT DATE | 3 June 2019 | SESSION | $08: 30$ to 11:30 |
| :--- | :--- | :--- | :--- |
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| Mr. D. du Plessis | 100 |  |  |

## NUMBER OF PAGES OF QUESTION PAPER (Including cover page)

## INFORMATION/INSTRUCTIONS:

- This is a closed-book assessment.
- There are 5 questions. Answer question 1 to question 5 (compulsory). In total, you must answer 5 questions.
- Read the questions carefully and answer only what is required.
- Number your answers clearly and correctly as per the question paper.
- Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.
- Show all formulae, calculations and workings clearly.
- Please start each question on a new page.
- Silent, non-programmable calculators may be used.
- Where applicable, round all calculations to two decimal places, unless stipulated otherwise.
- Indicate your INDEX NUMBER on the front cover of your script.


## QUESTION 1

1.1 Bike \& Ride (Pty) Ltd sells a curated selection of handpicked new bikes and repairs to all bike brands are done in-house together with a factory warranty issued with all repairs. Bike \& Ride (Pty) Ltd employ a team of certified fit and repair specialists to do all the repairs.

Furthermore, Bike \& Ride (Pty) Ltd has a large rental fleet; the company also sells selected second hand bikes. The information provided below relates to Bike \& Ride (Pty) Ltd.

| Extracts from the Financial Statements of Bike \& Ride (Pty) Ltd |
| :--- |
| ended 28 February. |


|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 7}$ |
| :--- | ---: | ---: |
| Earnings per share (EPS) | R0.85 | R0.63 |
| Dividend pay-out ratio | $?$ | 0.31 times |
| Dividend per share (DPS) | $?$ | R0.25 |
| Ordinary dividend coverage | $?$ | 3.22 times |
| Attributable earnings | R 340000 | R 250000 |
| Number of ordinary shares | 400000 | 400000 |
| Ordinary dividends | R 120000 | R 100000 |
| Ordinary share capital | R 600000 | R 600000 |

## REQUIRED:

1.1.1 Calculate the ordinary dividend coverage ratio for 2018. Show the relevant formula. Round off your answer to two decimal places.
1.1.2 Interpret the value of the ordinary dividend coverage ratio calculated in 1.1.1 above.
1.1.3 Calculate the dividend pay-out ratio for 2018. Show the relevant formula. Round off your answer to two decimal places.
1.1.4 Interpret the value of the dividend pay-out ratio calculated in 1.1.3 above.
1.1.5 Calculate the dividend per share (DPS) ratio for 2018. Show the relevant formula. Round off your answer to two decimal places.
1.1.6 $\begin{aligned} & \text { Interpret the value of the dividend per share (DPS) ratio calculated in } 1.1 .5 \\ & \text { above. }\end{aligned}$ (1)
1.1.7 Interpret the value of the earnings per share (EPS) ratio above.

## 1.2

| Listed Companies | Market-to-book <br> value ratio 2018 | Market-to-book <br> value ratio 2017 |
| :--- | :--- | :--- |
| ACDC Grill Ltd | 6.95 | 6.38 |
| Pink Floyd Pub Ltd | 3.15 | 3.25 |

## REQUIRED:

1.2.1 Interpret the market-to-book value ratio of 2017 and 2018 for ACDC Grill Ltd.
1.2.2 Explain what the market-to-book value ratio measures.
1.2.3 Name two fundamental qualitative characteristics of useful financial information.
1.3 The graph below depicts the fluctuation in the PE ratio of the three big US technological firms from 31 March 2008 to 30 September 2012.

PE Ratio of the Big Three US Tech Firms


## REQUIRED:

1.3.1 Interpret the graph above.

## QUESTION 2

## This CASE STUDY relates to question 2.1 - 2.5

A high receivables turnover ratio can imply a variety of things about a company. It may suggest that a company operates mainly on a cash basis. It may also indicate that a company's collection of accounts receivable is efficient and that the company has a high proportion of quality customers that pay off their debts quickly. A high ratio can also suggest that the company has a conservative policy regarding its extension of credit. This can often be a good thing as this filters out customers who may be more likely to take a long time in paying their debts. On the other hand, a company's policy may be too conservative if it is too tight in extending credit, which can drive away potential customers and give business to competitors. In this case, a company may want to loosen policies regarding the extension of credit to customers in order to improve sales.*
*Extract:https://www.investopedia.com/terms/r/receivableturnoverratio.asp accessed on 02/2019

## REQUIRED:

2.1 A high receivables turnover ratio can imply a variety of things about a company. Name four of those reasons by referring to the case study above.
2.2 Name two reasons why it would be a beneficial for a company to have a conservative policy regarding its extension of credit. (Hint: discuss the possible effect on accounts receivables, bad debts and profits )
2.3 Name one working capital management activity that a company can do to improve sales and profits in general.
2.4 List 4 C's of creditworthiness that a company needs to consider when evaluating whether a customer should be granted credit.

Edcon Limited is a retail company based in Johannesburg, South Africa. Some of its subsidiaries include Edgars, CNA, JET \& Boardmans.

Consider the following information provided by JET:

|  | January | February |
| :--- | :--- | :--- |
| Total Sales | R633 332 | R 833 334 |
| Cash | R411667 | R 541667 |
| Credit | R221665 | R 291667 |

## REQUIRED:

2.5 Calculate the percentage of JET sales that are cash and the percentage of sales that are credit.

JET'S Debtors collection schedule for January.

- January credit sales of R221 667 are collected as follows:

| Credit <br> sales | Jan | Feb | Mar | Apr | May |
| :--- | :--- | :--- | :--- | :--- | :--- |
| January <br> R221 665 | R44 333 | R44 333 | R44 333 | R44 333 | R44 333 |

## REQUIRED:

2.6 How many months does it take for the company to collect credit sales from their customers?

JET buys inventory on credit from various suppliers. The credit terms from most suppliers are $10 / 30$ net 90 . JET wants to know whether it is best to pay early or to take the full credit term. There is an option to borrow short term funds from the bank at an interest rate of 20\%. JET operates for 365 days per year.

## REQUIRED:

2.7 Calculate the cost of buying on credit from the supplier.
2.8 After calculating the cost of buying in 2.7, should JET pay early or take the full credit term. Provide motivation for your answer.

## QUESTION 3

3.1 You were presented with the following historic share performance information of Green Fingers Ltd:

| Year | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ |
| :--- | :--- | :--- | :--- |
| Historic Return | $18 \%$ | $20 \%$ | $25 \%$ |

## REQUIRED:

Calculate the arithmetic average return, using the historic return information provided. Show your formula.

## The following scenario relates to question 3.2 and 3.3

Landscapers Ltd presented you with the following expected information about their shares:

| State of the <br> economy | Probability | Expected return | Average expected <br> return |
| :--- | :--- | :--- | :--- |
| Recession | $30 \%$ | $4 \%$ | $10.3 \%$ |
| Normal | ?? | $10 \%$ | $10.3 \%$ |
| Good | $30 \%$ | $17 \%$ | $10.3 \%$ |

## REQUIRED:

3.2 Calculate the standard deviation of Landscapers Ltd share. Show all your workings.
3.3 Is it useful to evaluate the risk of one asset using the measure of standard deviation? Motivate your answer.
3.4 You are considering investing in a company that cultivates manure from cow dung. The risk-free rate is $5.5 \%$, the beta is 0.8 and the return on the market is $14 \%$.

## REQUIRED:

Calculate the rate of return required by investors. Show your formula.

An investor has a total investment of R1 700000 in Share Flower and a R2 500000 in Share Tree. The expected return for Share Flower is $7.8 \%$ and the expected return for Share Tree is $9.6 \%$. The expected standard deviation for Share Flower is $7.72 \%$ and the expected standard deviation for Share Tree is $11.47 \%$. The covariance of the portfolio is 40.13 .

## REQUIRED:

3.5 Calculate the standard deviation of the portfolio.

## QUESTION 4

## This CASE STUDY relates to question 4.1 - 4.4

Fin24 published an article about retirement savings on 2 March 2019.
The below is an extract from 'Can your savings last forever? 3 retirement myths that could be costing you'

Recent studies, on the other hand, suggest that just 8\% of South Africans are saving enough to replace at least $75 \%$ of their final salary as their income in retirement.

There are varying reasons for this: because too little had been saved; savings had been cashed in at resignation or retrenchment; investment had been too conservative; or the investor had to continue to provide for children and parents.
"But the biggest problem lies in the fact that, for many, the process of retirement planning does not begin early enough," explains Horn.

Temba read this article and is now quite concerned about his retirement savings. He asks you to assist him in recalculating his retirement goals. In preparation for your meeting, he gave you some information.
Temba believes his final annual salary will be R480 000 per year in today's value. He is currently 24 years old. He has currently R3 000 saved in his retirement investment account. He wants to retire at age 65. His investment generates interest at $9 \%$ per annum.

## REQUIRED:

4.1 Calculate 75\% of Temba's final annual salary.
4.2 Assume Temba needs R370 000 per annum in today's value. What will his final salary be at age 65, taking into account inflation of $4 \%$ per annum?
4.3 Assume that Temba wants to withdraw R1 900000 per year in his retirement. The annual amount will not change during his retirement. Calculate the total value of the retirement fund assuming that his investment in retirement will generate $7 \%$ interest per annum.

### 4.4 Using your answer in 4.3 and the information provided in the case study, calculate the annual payments Temba needs to make to get to his target retirement savings.

## This CASE STUDY relates to question 4.5 - 4.7

Mamello is buying a house in the western suburbs of Johannesburg. She is a first time buyer and is unsure how the interest and capital will be allocated from her monthly repayment of the loan. She asked for your help and gave you the necessary information. The purchase price is R450 000 and she will get a loan from the bank for the full amount. Interest is $10.2 \%$ per annum compounded monthly for 20 years.

## REQUIRED:

4.5 Calculate the monthly instalment of the loan.
4.6 Calculate the cumulative interest paid during the first year based on your answer in 4.5. Clearly indicate P1 and P2.
4.7 Calculate the capital portion of the payment of month 13 based on your answer in 4.5. Clearly indicate P1 and P2.
4.8 Lebogang would like to have R10 000 saved for a deposit on a car. She wants to buy the car in 3 years' time and wants to make regular monthly payments of R500 per month towards the investment. Calculate the monthly compounded interest rate that she needs to invest at.

## QUESTION 5

## This CASE STUDY relates to question 5.1 - 5.7

Bruno Ltd is a company designing and selling boutique handbags.
Bruno Ltd is planning to issue bonds in order to raise capital. The financial manager recommended that the bonds should be paying an annual amount of R50 per year to investors and R800 to be paid at maturity. The interest required by the market is $10 \%$. The term will be 12 years, at which the bond can be converted to ordinary shares.

Currently, Bruno Ltd have shares already in issue. The current sales price is R400. The last dividend paid was R30 per share and dividends are expected to grow at $7 \%$ per year forever. Investors require a rate of return of $14 \%$ on investments of similar risk.
5.1 Identify the time to maturity of the bond in the case study.
5.2 What is the par value of the bond in the case study?
5.3 Calculate the coupon rate of the bond.
5.4 Using your answer calculated in 5.3 , will this bond trade at a premium or a
discount? Motivate your answer.
5.5 From the information provided, what type of bond will Bruno Ltd's bond classify?
5.6 Calculate the intrinsic value of Bruno Ltd's shares.
5.7 From your calculation in 5.6, are the shares undervalued or overvalued?

## This CASE STUDY relates to question 5.8 - 5.10

Bruno Ltd is looking to expand the handbag business further into the fashion world by adding shoes to match the themes of the handbags. This project is currently called project Jupiter. In order to launch this project, a lot of research and development needs to happen, including market research in the feasibility of the concept.

After many days of doing calculations, the finance team established the expected return of project Jupiter to be $15 \%$.

The current capital structure is as follow:
Ordinary shares with a cost of $14 \%$.
Bruno Ltd has long-term debt with a cost of $9 \%$ before tax.
The optimum capital structure of debt to equity is equally divided
The company tax rate is $28 \%$.

## REQUIRED:


#### Abstract

5.8 As part of the finance team, your task is now to determine if the investment in the project should take place by calculating the weighted average cost of capital (WACC). Show your calculations in table format.


5.9 Recommend if the project should take place, motivate your answer.
5.10 Explain to Mr Mars, the founder and CEO, why the cost of debt are usually the component with the lowest cost attached.
5.11 Explain to Mr Mars the concept of "pooling of funds".

