# **SECTION A**

#### **REQUIRED**:

Answer the following questions by choosing the correct answer. Please indicate the **letter** you have chosen as your answer next to the correct question number on the answer sheet that has been provided to you.

#### Question 1.1

Which one of the following questions is a working capital management decision?

- A Should the company issue new shares of stock or borrow money?
- B Should the company update or replace its older equipment?
- C How much inventory should be on hand for immediate sale?
- D Should the company close one of its current stores?

## **Question 1.2**

(1)

What is the relationship between the present value and future value interest factors?

- **A** The present value and future value factors are equal to each other.
- **B** The present value factor is the exponent of the future value factor.
- **C** The future value factor is the exponent of the present value factor.
- **D** The factors are reciprocals of each other.

#### Question 1.3

(1)

Which one of the following is an expense for accounting purposes but is not an operating cash flow for financial purposes?

- A Interest expense
- **B** Taxes
- C Cost of goods sold
- D Labour costs

# [30 MARKS]



(1)

#### **Question 1.4**

Which one of the following statements concerning the cash cycle is correct?

- A Increasing the accounts payable period, increases the cash cycle.
- ${\bf B}$  The cash cycle can exceed the operating cycle if the payables period is equal to zero.
- **C** The longer the cash cycle, the more likely a company will need external financing.
- **D** The cash cycle plus the accounts receivable period is equal to the operating cycle.

#### Question 1.5

Which one of the following will decrease the operating cycle?

- A decreasing the days in accounts payable.
- B decreasing the accounts receivable turnover rate.
- **C** decreasing the days sales in inventory.
- **D** decreasing the speed at which inventory is sold.

#### Question 1.6

All else constant, a bond will sell at a discount when:

- A the market price is greater than face value.
- **B** face value is greater than coupon payment
- **C** yield to maturity is greater than coupon rate.
- **D** coupon rate is greater than yield to maturity.

## Question 1.7

The dividend growth model:

- A assumes that the growth rate is always greater than the required return.
- **B** assumes a non-constant growth rate into perpetuity.
- **C** requires the growth rate to be less than the required return.
- **D** can be used to value companies that do not pay a dividend.

(1)

(1)

(1)

(1)

#### **Question 1.8**

Assuming all else constant, which of the following will lower the weight of bonds when calculating the weighted average cost of capital?

- A Decrease in the market value of bonds.
- **B** Decrease in the market value of equity.
- **C** Increase in the after-tax cost of the bonds.
- **D** Decrease in the after-tax cost of the bonds.

#### Question 1.9

Weighted average cost of capital for a company is:

- A the weighted average after tax cost of all permanent sources of finances.
- **B** the return required by all capital providers on the total assets of a company.
- **C** constant when regardless of changes in corporate tax rates.
- **D** equivalent to the cost of equity.

#### Question 1.10

Which one of the following is a measure of systematic risk?

- A Standard deviation.
- B Expected values.
- C Variance.
- D Beta.

#### Question 1.11

You have a savings account valued at R1 500 today that earns an annual interest rate of 8.7%. Calculate how much more this account would be worth if you wait to spend the entire balance in 25 years rather than in 20 years.

- A R6 306.16
- **B** R4 658.77
- **C** R3 311.18
- **D** R4 117.64

# (1)

(1)

(1)

#### Question 1.12

Twenty years from now, you want to spend R175 000 on a fancy car. How much must you deposit as a lump sum today to achieve this goal at an annual interest rate of 6.6%?

- A R54 208.16
- **B** R48 740.95
- **C** R57 911.08
- **D** R40 019.82

## Question 1.13

SS Stores has total debt of R4 910 and a debt-equity ratio of 0.52. Calculate the value of the total assets.

- **A** R16 128.05
- **B** R7 253.40
- **C** R9 571.95
- **D** R14 352.31

## Question 1.14

(2)

uKudla Wholesalers has sales of R1 648 900. The cost of goods sold is equal to 71% of sales and the average inventory is R75 800.

Calculate how many days on average it takes to sell the inventory.

- A 28.30 days
- **B** 23.63 days
- C 20.48 days
- **D** 33.28 days

#### Question 1.15

As of the beginning of the quarter, Callahan's had a cash balance of R710. During the quarter, the company collected R1 860 from customers and paid suppliers R1 520. The company also paid a loan payment of R320 and a tax payment of R510. Calculate Callahan's cash balance at the end of the quarter.

- **A** R110
- **B** R290
- **C** R220
- **D** R150

#### Question 1.16

Roots has zero coupon bonds that mature in 10 years' time. The yield to maturity on these bonds is 8.8% with a face value of R1 000 per bond. What is the current market value of one of these bonds?

- **A** R88
- **B** R430.24
- **C** R450.25
- **D** R256.89

#### Question 1.17

Shadow estimates a future growth rate of 5%. The company recently paid a dividend of R0.32 per share and the next dividend is expected to be R0.37 per share. Calculate the value of one share of Shadow if the required return is 14%.

- **A** R4.11
- **B** R3.73
- **C** R2.50
- **D** R7.00

#### (2)

## Question 1.18

Regent has debt and equity in its capital structure. Debt has a weighting of 60% and an after-tax cost of 8.5%. The required return of equity is 15%. Assuming a tax rate of 27%, calculate the cost of capital of Regent.

- **A** 12.36%
- **B** 11.10%
- **C** 9.73%
- **D** 14.45%

## Question 1.19

Makubu has a bond issue that matures in 10 years' time. The bond pays a coupon rate of 8% semi-annually. The face value of the bond is R1 000 and the current market value is R980.75. Calculate the after-tax cost of this bond assuming a company tax of 27%.

- **A** 8.29%
- **B** 6.05%
- **C** 8.48%
- **D** 6.19%

#### Question 1.20

Your portfolio has a beta of 1.5. The portfolio consists of 60% in share A and 40% in share B. Share A has a beta of 1.2. Calculate the beta of share B

- **A** 0.60
- **B** 0.72
- **C** 0.78
- **D** 1.95

#### END OF SECTION A

(2)

## **SECTION B**

## This question consists of TWO independent parts

## PART A

(6 marks)

You want to have R30 000 saved five (5) years from now to buy a house. Bank A offers a savings rate of 3.5% p.a. compounded annually and Bank B, 2.5% p.a. compounded annually.

## **REQUIRED:**

2.1 Calculate how much less you would have to deposit today if you decided (6) to deposit this amount into Bank A. (Assume that today's deposit is the only deposit you will make to this savings account.)

#### PART B

The Art Gallery is notoriously known as a slow payer. The company currently needs to borrow R25 000 and only one lender will loan it to them. The terms of the loan call for weekly payments of R500 at 23.4% p.a. compounded weekly interest rate.

#### **REQUIRED:**

**2.2** Calculate the term of this loan term in **weeks**.

## (4 marks)

(4)

# [20 marks]

## **QUESTION 3**

(10 marks)

Joe Maduka has a two-share portfolio. Joe's aim with the portfolio is to achieve a portfolio beta of 1.3. The portfolio is set out as follows:

	Number of shares	Market price per share	Beta
Share A	100 000	R5.75	1.8
Share B	50 000	R8.40	1.2

#### **REQUIRED**:

- **3.1** Calculated the beta of the portfolio. (6)
- 3.2 Calculate the weightings for share A and share B which will enable (4) Joe to achieve a portfolio beta of 1.3.

## END OF SECTION B

# **SECTION C**

#### QUESTION 4

[50 marks]

(25 marks)

#### Background

Qua-Qua Ltd was formed in 2012 for the purpose of selling high-end electrical bicycles to the general public. The idea to sell electric bicycles was born with the increasing costs of fuel and the general cost of living in South Africa.

#### Current

In the current 2021 financial year, Qua-Qua's recorded annual credit sales of R1.5 million. The financial manager is concerned with the large percentage of uncollectible debts and has advised management to change its credit policy as follows:

• <u>Settlement discount terms</u>

Currently 10% of all clients, under the current credit policy of 2/15 net 45, make use of the cash discount. Under the proposed credit policy of 10/20 net 30, 15% of all clients are expected to make use of the cash discounts.

• Bad debts

Bad debts currently amount to 8% of total sales and are expected to improve to 5% of total sales with the implementation of the proposed credit policy. Credit sales are expected to increase by 5% under the new proposed credit policy.

#### Future

The accounts receivable balance at the end of 2021 financial year is R150 000 and the average collection period is 30 days. The financial manager forecasts sales in the future to be as follows:

2022				
Q1	Q2	Q3	Q4	
380 000	420 000	375 000	550 000	

#### **REQUIRED:**

- **4.1** Perform a calculation for Qua-Qua Ltd in which you set out the impact of the **(15)** proposed change in the credit policy.
- **4.2** Prepare a table that analyses the cash collection part of the cash budget for **(10)** 2022.

#### **QUESTION 5**

#### This question consists of TWO independent parts

#### Part A

# (18 marks)

(25 marks)

Hillier Ltd finances its activities with both debt and equity. The following information is available regarding the company's capital structure:

- Hillier has 3 million shares of ordinary equity outstanding, currently selling for R47 per share. The ordinary equity has a beta of 1.3 and a required return of 20%
- Hillier also has 1 million 8 per cent preference shares outstanding with a par value of R100. The preference shareholders currently require a return of 12%.
- The company has 100 000 bonds outstanding with a par value of R1 000 per bond. Equally risky bonds on the market are currently yielding 8.79 %. The bonds mature in five years' time and pay an annual coupon of 10%.
- The risk-free rate is 7%.

#### **REQUIRED**:

5.1 Calculate the reward-to-risk ratio of ordinary equity. (4) 5.2 Explain the meaning of the reward-to-risk ratio calculated in **5.1**. (2) 5.3 Assuming the security market line (SML) is applicable, calculate the required return of ordinary equity if beta changes to 1.5. (4) 5.4 Calculate the market value per share of preference shares. (2) 5.5 Explain the impact on the value of preference shares calculated in **5.4** if preference shareholders require a return of 10% instead. (1) 5.6 Calculate the total market value of the bonds. (5)

#### Part B

#### (7 marks)

KGB limited last paid a R2.50 per share annual dividend. The company is planning on paying a dividend of R4.00, R2.00, R5.50, and R11. 00 a share over the next four years, respectively. Thereafter, the dividend will be R5.50 per year into the foreseeable future. KGB shareholders require a return of 14%.

**5.7** Calculate the value of KGB's share in a year's time. (7)

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