UNIVERSITY OF ESWATINI

DEPARTMENT OF ACCOUNTING AND FINANCE

MAIN EXAMINATION PAPER MAY 2021

ACADEMIC YEAR 2020/2021

PROGRAMME OF STUDY	:	**Master of Business Administration**
YEAR OF STUDY	:	**Year 1 (Part Time)**
TITLE OF THE PAPER	:	**Corporate Finance and Investment**
COURSE CODE	:	**ACF 603**
TIME ALLOWED	:	**Three (3) Hours**

INSTRUCTIONS

1. There are **FIVE (5)** questions; **ANSWER ALL THE QUESTION IN SECTION A AND ANY TWO (2) QUESTIONS IN SECTION B.**
2. The paper consists of seven (7) numbered pages, including this page and Appendix 1 which contains useful formulae.
3. Begin the solution to each question on a new page.
4. The marks awarded for a question are indicated at the end of each question.
5. Show ALL your necessary workings.

NOTE: You are reminded that in assessing your work, account will be taken of accuracy of the language and the general quality of expression, together with layout and presentation of your answer.

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR / SUPERVISOR.

SPECIAL REQUIREMENT: SCIENTIFIC / FINANCIAL CALCULATOR

SECTION A - COMPULSORY (50 Marks)

ANSWER ALL THE QUESTIONS IN THIS SECTION

QUESTION ONE (20 Marks)

'....because they generally are not involved in day-to-day operations, shareholders of large corporations 'permit' (empower) the executives to make decisions as to how the firms are run. Of course, the shareholders want the managers to make decisions that are consistent with the goal of wealth maximization. However, manager's interests can potentially conflict with shareholder's interests'

Adapted: Besley.S, Brigham. E.F. and Sibindi. A.B (2015), Corporate Finance, A South African Perspective

In the context of the above extract, critically discuss the agency theory by focusing on how the agency problem arises, the agency costs and strategies that are implemented by corporations to mitigate / minimize the agency costs. (20 Marks)

QUESTION TWO (30 Marks)

Wonder World Widgets Limited (WWW) wish to calculate their weighted average cost of capital. Below is an extract of the company's most recent Income Statement:

	R (000's)
Profit before interest and taxes	120 000
Interest	20 000
Profit before Tax	100 000
Tax	28 000
Net profit after tax	72 000
Ordinary share dividends paid	54 000

Below is an extract of the company's most recent Balance Sheet:

	R (000's)
Equity and Liabilities	
Shareholders' equity	720 000
Preference share capital (par value R33 each)	330 000
Redeemable debentures (par value R1000 each)	400 000
	1 450 000

Additional information

1. The company has 6 million ordinary shares (par value of R100 per share) which are currently trading at R125.00 per share on the JSE.

2. The company's 10% semi-annual coupon redeemable debentures have three years to maturity. The current yield to maturity is 8.5%.
3. Wonder World Widgets Limited's irredeemable preference shares have a coupon rate of 5% and are currently trading at R50 per share.

Required:

2.1 Calculate Wonder World Widgets Limited's (WWW) cost of equity. (8 Marks)

2.2 Compute the market value of Wonder World Widgets Limited's (WWW) ordinary shares, preference shares, debentures and the total market value of the firm. (12 Marks)

2.3 Calculate Wonder World Widgets Limited's (WWW) Weighted Average Cost of Capital (WACC). (10 Marks)

Hint: First calculate the tax rate from the given Income Statement.

SECTION B (50 Marks)

ANSWER ANY TWO (2) QUESTIONS IN THIS SECTION

QUESTION THREE (25 Marks)

3.1 Singh Trading Limited's management is concerned about the way in which the company will be financed. The three alternative plans that have been proposed are shown in Table 3.1 below:

	Plan 1 E million	**Plan 2 E million**	**Plan 3 E million**
Current assets	22.5	22.5	22.5
Non-current assets	40.0	40.0	40.0
Current liabilities	22.5	15.0	7.5
Long-term debt (12%)	7.5	-	22.5
Share capital and reserves	32.5	47.5	32.5

Table 3.1

Irrespective of which plan is chosen, sales are expected to be E250m and operating profit (EBIT) will be R40m. The tax rate is 28. Short-term loans (interest rate - 10%) make up 50% of current liabilities.

Required:

3.1.1 For each plan, calculate the following: current ratio, net working capital, debt ratio, and return on equity. (10 Marks)

3.1.2 Compare the risk and return associated with each plan. Which plan would you accept? (5 Marks)

3.2 Critically discuss the relationship that exists between the overall corporate strategy of a corporation, its objectives and its financial strategy. (10 Marks)

QUESTION FOUR (25 Marks)

4.1 Amortization schedules are widely used for home mortgages, auto loans, and so forth to determine how much each payment represents for principal repayment and how much it represents for interest.

Assuming that you are the financial advisor for Dr H. Dlamini who gets a mortgage loan from your Bank Nedbank for E5000 000.00 (present value), with an interest rate of 9% and a term of 5 years with fixed installment option.

Required:

4.1.1 Prepare an amortization schedule for Dr H.Dlamini. (13 Marks)

4.1.2 Using the amortization schedule in 4.1.1. How much is the total payment and total interest Dr H.Dlamini is going to pay? (2 Marks)

4.2 You wish to purchase an apartment in Port Elizabeth which is situated in a tree line-lined avenue. The purchase price, with costs, is R1 000 000 and you are able to obtain a 100% mortgage loan at an interest rate of 6%, interest compounded monthly. The term of the loan is 25 years. Assume that property values are expected to rise at a rate of 9% per year (0.75% per month).You will be able to rent out the apartment after costs at a rate of R5000.00 per month for the first year. Interest and rent are payable at the beginning of each month.

Required:

4.2.1 What is the expected value of the apartment in 25 years' time? (4 Marks)

4.2.2 Calculate the mortgage loan repayment at the beginning of each month? (3 Marks)

4.2.3 What is the net amount you have to pay in each month? (3 Marks)

QUESTION FIVE (25 Marks)

Components Manufacturing Corporation (CMC) has an all-common-equity capital structure. It has 200,000 shares of $2 par value common stock outstanding. When CMC's founder, who was also its research director and most successful inventor, retired unexpectedly to the South Pacific in late last year, CMC was left suddenly and permanently with materially lower growth expectations and relatively few attractive new investment opportunities.

Unfortunately, there was no way to replace the founder's contributions to the firm. Previously, CMC found it necessary to plow back most of its earnings to finance growth, which averaged 12 percent per year. Future growth at a 5 percent rate is considered realistic, but that level would call for an increase in the dividend payout. Further, it now appears that new investment projects with at least the 14 percent rate of return required by CMC's stockholders (rs = 14%) would amount to only $800,000 for the current year in comparison to a projected $2,000,000 of net income. If the existing 20 percent dividend payout were continued, retained earnings would be $1.6 million in the current year, but, as noted, investments that yield the 14 percent cost of capital would amount to only $800,000.

The one encouraging factor is that the high earnings from existing assets are expected to continue, and net income of $2 million is still expected for this year. Given the dramatically changed circumstances, CMC's management is reviewing the firm's dividend policy.

Required:

5.1 Assuming that this year's acceptable investment projects would be financed entirely by earnings retained during the year, calculate DPS for the current year if CMC follows the residual dividend policy. (6 Marks)

5.2 What payout ratio does your answer to part 5.1.1 imply for the current year? (3 Marks)

5.3 If a 60 percent payout ratio is maintained for the foreseeable future, what is your estimate of the present market price of the common stock? How does this compare with the market price that should have prevailed under the assumptions existing just before the news about the founder's retirement? If the two values of P_0 are different, comment on why. (6 Marks)

5.4 Discuss **ANY FIVE (5)** factors influencing dividend policy in any organisation of your choice. (10 Marks)

APPENDIX 1 - FORMULAE SHEET

Quick Ratio = (Current Assets - Inventory) / Current Liabilities

ROA = NP AT / Total Assets

Current Ratio = Current Assets / Current Liabilities

Equity Multiplier = Total Assets / Equity

Inventory Turnover = Cost of Goods Sold / Inventory

Times Interest Earned = PBIT / Interest paid

Net Profit Margin = NPAT / Sales

PIE ratio = Market price per share / EPS

Total Debt ratio = Total debt / Total Assets

ROE = NPAT / Equity

Accounts receivable Period = Accounts Receivables / Sales x 360 days

Inventory period = Inventory / COGS x 360 days

Debt: Equity ratio = Total Debt / Total Equity

Total Asset Turnover = Sales / Total Assets

Cash ratio = Cash / Current Liabilities

ROE = PMx TATxEM

FV of a lump sum $= PV \times (1 + r)^t$ PV of a lump sum $= FV / (1 + r)^t$

$$PVAn = PMT \times \frac{[1-1/(1+r)^n]}{r}$$

- $R_E = \frac{D_0 (1+g)}{P_0} + g$
- $R_P = \frac{D}{P_0}$
- $R_E = R_F + \beta_E \times (R_M - R_F)$
- Bond value $= C \times \frac{[1 - 1/(1+r)^t]}{r} + F / (1+r)^t$
- $WACC = \left(\frac{E}{V} \times R_E\right) + \left(\frac{P}{V} \times R_P\right) + \left(\frac{D}{V} \times R_D \times (1 - T_c)\right)$
- $V_L = \frac{PBIT \ (1 - T_C)}{R_U} + \frac{T_C \ R_D \ D}{R_D}$
- $V_U = \frac{PBIT \ (1 - T_C)}{R_U}$
- $R_E = R_U + (R_U - R_D) D / E(1 - Tc)$
- $YTM = \frac{i + (F_d - V_d)/n}{(F_d + 2V_d)/3}$
- $R_E = \frac{D_1}{P_0} + g$
- $g = ROE \times b$
- $r = l + [\frac{L - V_B}{L - H} x(h - l)]$
- $P_0 = D_1 / (r - g)$
- $P_t = D_{t+1} / (R - g)$
- $P_0 = \frac{D}{R_P}$

END OF PAPER