UNIVERSITY OF ESWATINI

DEPARTMENT OF ACCOUNTING AND FINANCE

MAIN EXAMINATION PAPER NOVEMBER 2019

ACADEMIC YEAR 2019/2020

PROGRAMME OF STUDY	:	Bachelor of Commerce
YEAR OF STUDY	:	Year 3 (Full Time/Part Time)
TITLE OF THE PAPER	:	Intermediate Corporate Finance
COURSE CODE	:	ACF 319 / AC 322
TOTAL MARKS	:	100 Marks
TIME ALLOWED	:	Three (3) Hours

INSTRUCTIONS

1. There are **FIVE (5)** questions of 25 marks each, **ANSWER ANY FOUR (4) QUESTIONS.**
2. This 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 your necessary workings.
6. Round off all prices to the nearest cent, values to the nearest lilangeni, interest factors and decimalized interest rates to four decimal places, and decimalized weightings to four decimals.

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.

QUESTION ONE **(25 Marks)**

1.1 In each of the following cases only one answer is correct. Write down numbers 1.1.1 to 1.1.10 in your answer booklet and next to each number write the letter that represents the correct answer. e.g. 1.1.11 C. Each question carries 2 Marks.

(20 Marks)

1.1.1 The process of planning, evaluating, selecting, and managing the long-term operating projects of the company is termed _____.
A) capital budgeting.
B) capital structure.
C) accounts receivable management.
D) working capital management.
E) Investment policy.

1.1.2 The means by which a company is financed refers to the firm's _____.
A) capital budgeting.
B) capital structure.
C) accounts receivable management.
D) working capital management.
E) All of the above.

1.1.3 You have purchased a Treasury bond that will pay E10,000 to your newborn child in 15 years. If this bond is discounted at a rate of 3.875% per year, what is today's price (present value) for this bond?
A) E8,417.00
B) E8,500.00
C) E5,654.00
D) E10,000.00
E) E15,000.00

1.1.4 The University of Eswatini is running a special offer on tuition. This year's tuition cost is E18,000.00. Next year's tuition cost is scheduled to be E19,080.00. The university offers to discount next year's tuition at a rate of 6% if you agree to pay both years' tuition in full today. How much is the total tuition bill today if you take the offer?
A) E18,000.00
B) E34,981.00
C) E37,080.00
D) E36,000.00
E) E40,000.00

1.1.5 Your parents plan to spend E20,000.00 on a car for you upon graduation from college. If you will graduate in three years and your parents can earn 4.125% annually on their investment, how much money must they set aside today for your car?

A) E20,000.00
B) E17,704.00
C) E17,716.00
D) E16,387.00
E) E16,000.00

1.1.6 Four years ago, Robert's annual salary was E52,500. Today, he earns E73,800. What has been the average annual rate of growth of Robert's salary?

A) E5,325 per year
B) 10.38%
C) 41.52%
D) 8.89%
E) 10%

1.1.7 In 1930, the highest paid player in major league baseball was Babe Ruth of the New York Yankees, with an annual salary of $80,000. In 2005, the highest paid player in major league baseball player was Alex Rodriguez, also of the New York Yankees, with a salary of $25,000,000. What was the average annual rate of growth in the top baseball salary over this time period?

A) 7.96%
B) 18.70%
C) 3.31%
D) 4.17%
E) 5.15%

1.1.8 Gasoline cost $.10 per gallon in 1930. Over the next 60 years, the price rose at an average rate of 4.42% per year. Based on this information, what was the average price of a gallon of gas in 1990?

A) $1.34 per gallon
B) $1.53 per gallon
C) $2.65 per gallon
D) $2.75 per gallon
E) $3.25 per gallon

1.1.9 You plan to place a $40,000.00 down payment on a lake cabin in Northern Minnesota in five years. If you invest in a long-term CD earning an annual rate of 5.50%, how much would you need to invest today to have enough for the down payment in five years?

A) $33,326.00
B) $30,605.00
C) $24,379.00
D) $18,264.00
E) $20,000.00

1.1.10 If you invest E5,000 today at an annual interest rate of 6.35%, how much money will you have for your daughter's college education in 18 years?

A) E5,603.00
B) E10,000.00
C) E15,144.00
D) E17,544.00
E) There is not enough information to answer this question.

1.2 Differentiate between ordinary 'deferred' annuity and annuity due. (2 Marks)

1.3 Explain what you understand by the terms yield to maturity (YTM) and yield to call (YTC). (3 Marks)

QUESTION TWO **(25 Marks)**

2.1 Xulu Construction has issued 20-year E1,000.00 face value, 8% annual coupon bonds, with a yield to maturity of 10%. What is the current price of the bond? (4 Marks)

2.2 Mavuso Supermarkets has issued 30-year semi-annual coupon bonds with a face value of E1000.00. If the annual coupon rate is 14% and the current yield to maturity, what is the firm's current price per bond? (4 Marks)

2.3 Truworths wishes to issue new bonds but is uncertain how the market would set the yield to maturity. The bonds would be 20-year, 7% annual coupon bonds with a E1,000 par value. Woolworths has determined that these bonds would sell for E1,050 each. What is the yield to maturity for these bonds? (4 Marks)

2.4 Sifiso Construction has outstanding E1,000 face value 8% coupon bonds that make semiannual payments, and have 14 years remaining to maturity. If the current price for these bonds is E987.24, what is the annualized yield to maturity? (4 Marks)

2.5 Shoprite Supermarket has E1,000 par value, twenty-year, 6% annual coupon bonds, outstanding currently selling for E696.25. What is the yield to maturity on these bonds? (3 Marks)

2.6 List and describe **ANY THREE (3)** types of corporate bonds. (6 Marks)

QUESTION THREE (25 Marks)

3.1 Mavuso Corporation has just paid a cash dividend of E2.00 per share. Investors require a 16 percent return from investments such as this. If the dividend is expected to grow at 20 percent for the next three years and then settle down to 8 percent per year thereafter, what would be the share's present value? (12 Marks)

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

Assume Mr Zulu gets a home mortgage loan from Standard Bank for E1000,000 (present value), with an interest rate of 14% and a term of five years with fixed instalment option.

Required:

3.2.1 Prepare an amortization schedule for Mr Zulu. (10 Marks)

3.2.2 Using the amortization schedule in 3.21. Calculate Mr Zulu's total payment and total interest to be paid. (3 Marks)

QUESTION FOUR (25 Marks)

4.1 Compare and contrast the **THREE (3)** theories that explain the shape of the yield curve. (9 Marks)

4.2 List and explain **ANY THREE (3)** types of short term debt. (6 Marks)

4.3 Briefly discuss **ANY FIVE (5)** limitations of the Capital Asset Pricing Model (CAPM). (10 Marks)

QUESTION FIVE **(25 Marks)**

As a financial manager of Humphrey Enterprises, you are required to analyse two proposed capital investments, Projects A and B. Each has a cost of E100,000.00, and the cost of capital for each project is 12%. Depreciation on each project is estimated at E25,000.00 per year. The projects' expected profit are as follows:

Year	Project A	Project B
1	E40,000.00	E10,000.00
2	E5,000.00	E10,000.00
3	E5,000.00	E10,000.00
4	(E15,000.00)	E10,000.00

Required:

5.1 Explain why cash flows rather than profit flows used in determining the payback period, NPV and IRR? (5 Marks)

5.2 Calculate the payback period and NPV for each project. (15 Marks)

5.3 Which project should be accepted if they are mutually exclusive? (3 Marks)

5.4 List **ANY TWO (2)** advantages of the Net Present Value Method (NPV). (2 Marks)

.....END OF PAPER.....

APPENDIX 1 - FORMULAE SHEET

- $R_E = \frac{D_0 (1+g)}{P_0} + g$
- $R_P = \frac{D}{P_0}$
- $R_E = R_F + \beta_E \times (R_M - R_F)$
- Bond value = C x $\frac{[1 - 1/(1+r)^t]}{r}$ + F [$1/(1+r)^t$]
- $FV_t = PV \times (1+r)^n$
- PVA_n = PMT $\frac{[1 - 1/(1+r)^n]}{r}$
- FV of a lump sum = PV x $(1+r)^t$
- PV of a lump sum = FV / $(1+r)^t$
- FV of annuity = $C \times \left(\frac{(1+r)^t - 1}{r} \right)$
- PV of annuity = $C \times \left(\frac{1 - \frac{1}{(1+r)^t}}{r} \right)$
- $YTM = \frac{i + (F_d - V_d)/n}{(F_d + 2V_d)/3}$
- $R_E = \frac{D_1}{P_0} + g$
- g = ROE x b
- $r = l + [\frac{L - V_B}{L - H} x (h - l)]$
- $P_0 = D_1 / (r - g)$
- $P_t = D_{t+1} / (R - g)$
- $D_n = Do * (1+g)^n$
- $P_0 = \frac{D}{R_P}$