BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT: ECONOMICS

PROGRAMME: MASTER OF SCIENCE DEGREE IN ECONOMICS

COURSE CODE MEC 523: CORPORATE FINANCE AND INVESTMENT ANALYSIS

DURATION: 3 HOURS TOTAL MARKS: 100

NOV 2024

INSTRUCTIONS TO CANDIDATES

1. This paper carries five questions
2. Answer any four (4) questions.
3. All questions carry 25 marks.
4. Cellphones are not allowed in the examination room.

QUESTION ONE

a) Explain the capital allocation process. [15 Marks]

b) Munhumutapa Investments is a prominent investment firm operating in Zimbabwe. The firm has carved a niche for itself in the realm of real estate investment, demonstrating a keen acumen for identifying lucrative opportunities and capitalizing on them. Munhumutapa investments current dividend is $5.00. The firm's growth projections are quite optimistic, with an expected growth rate of 10 percent per annum for the initial three years. Following this period of accelerated growth, the firm anticipates a steady growth rate of 5 percent per annum in the subsequent years. The required rate of return for investments in Munhumutapa is 15 percent, a figure that reflects the firm's robust financial health and promising future prospects.

Required:

Estimate the intrinsic value for Munhumutapa investments. [10 Marks]

QUESTION TWO

a) Explain the assumptions of the capital asset pricing model [CAPM]. [12 Marks]
b) Consider a portfolio of four stocks as displayed in the following table:

Stock	Weight	Beta

1	0.1	1.3
2	0.2	-0.6
3	0.3	β_3
4	0.4	1.1

Assume the expected return of the portfolio is 0.12, the annual effective risk-free rate is 0.05, and the market risk premium is 0.08. Assuming the Capital Asset Pricing Model holds, calculate β_3.

[13 Marks]

QUESTION THREE:

a) Assume that Yofund investments reported USD24,395 in Year 2 after-tax operating profits and the following balance sheet information.

Assets:	End of Year 1 [USD]	End of Year 1 [USD]
Cash	4,364	6,802
Short term assets	40,529	52,352
Long term assets	287,857	279,769
Total assets	332,750	338,923

Liabilities and Equity:	End of Year 1 [USD]	End of Year 1 [USD]
Accounts payable	35,221	50,766
Short-term debt	21,142	5,877
Long-term debt	112,257	106,597
Share capital	15,688	15,688
Retained earnings	148,442	159,995
Total liabilities and equity	332,750	338,923

Required:

[i] Calculate the Return on invested capital for Year 2. [7 Marks]

[ii] If an investor has a required rate of return of 10%, is this company a promising investment candidate? Explain your answer.

[3 Marks]

b) Describe the common capital allocation pitfalls. [15 Marks]

QUESTION FOUR

a) You are given the following information about the annual returns of two stocks, X and Y:

i. The expected returns of X and Y are $E[R_x]$ = 10% and $E[R_y]$ = 15%.

ii. The volatilities of the returns are σ_x =18% and σ_y = 20%.

iii. The correlation coefficient of the returns for these two stocks is 0.25.

iv. The expected return for a certain portfolio, consisting only of stocks X and Y, is 12%.

Required:

Calculate the volatility of the portfolio return. **[15 Marks]**

b) Explain systematic and non-systematic risk, including why an investor should not expect to receive additional return for bearing non-systematic risk. **[10 Marks]**

QUESTION FIVE

Pacific Enterprises has FCFF of USD 700 million and FCFE of USD 620 million. Pacific's before tax cost of debt is 5.7% and its required rate of return of equity is 11.8%. The company expects a target capital structure consisting of 20% debt financing and 80% equity financing. The tax rate is 33.33%, and FCFF is expected to grow forever at 5%. Pacific Enterprises has debt outstanding with a market value of USD 2.2 billion and has 200 million outstanding common shares.

a) What is Pacific's weighted average cost of capital? **[8 Marks]**

b) What is the total value of Pacific's equity using the FCFF valuation approach? **[8 Marks]**

c) What is the value per share using this approach? **[9 Marks]**

END OF PAPER