



ZIMBABWE EZEKIEL GUTI UNIVERSITY

**FACULTY OF BUSINESS INTELLIGENCE, ENTREPRENEURSHIP,
ARTEFACTUAL DESIGNS AND FUTURES**

**DEPARTMENT OF ACCOUNTING, FINANCE AND HUMAN CAPITAL
MANAGEMENT**

EXAMINATION PAPER

MODULE CODE : CAC 214
MODULE TITLE : Corporate Finance
DURATION : 3 Hours
LEVEL : 2.1

24 NOV 2025

INSTRUCTIONS TO CANDIDATES:

1. No cell phones are allowed in the examination venue.
2. Use of silent, non-programmable calculators is allowed
3. Answer all questions Section A and in Section B.
4. Begin each question on a new page.
5. The number of marks for each question or part question is shown in brackets ()
6. Show all workings, where applicable.

SECTION A: ANSWER ALL QUESTIONS

Read the following case study and answer questions that follow:

The CAPM is an equilibrium model for risk and return trade off in portfolio Theory. It is derived from other portfolio theory models like Markowitz selection model which spells how securities should be combined in order to create efficient and optimum portfolios. The CAPM is a technique for predicting expected return on risky assets. It has a number of assumptions some of which are unrealistic but nevertheless help in giving insight to more relevant issues in portfolio analysis in the real world. Alternatives to the standard CAPM realise that most assumptions improved in the standard. CAPM are implausible – do not hold in reality.

However, given an assumption that there is risk free lending and borrowing, risk averse investors will hold portfolios that are made up of a market portfolio (a risky asset) and a risk-free asset. The inclusion of the risk free asset results in a linear relationship. This is called the Capital Market Line.

An investor comes to Zimbabwe and is given the following information on a set of stocks.

Stock	Beta
A	0.93
B	1.11
C	1.29
D	2.17

The risk-free rate is 5.2%, the market return is 16.6%, and the risk of the market is measured by the standard deviation of 5%. The investor wants to invest 72% of his proceeds in the market portfolio and the remainder in risk free assets.

QUESTION 1

- Examine the applicability of the Capital asset Pricing model in estimating the returns of risky assets. **(8 marks)**
- Evaluate the alternatives to the capital asset pricing model in the estimating the returns of a risky asset. **(8 marks)**
- Calculate the expected return of each stock based on the capital asset pricing model. **(4 marks)**

d) Calculate the expected return of the investor's portfolio based on the capital market line.

(5 marks)

[Total 25 marks]

SECTION B: ANSWER ALL QUESTIONS

QUESTION 2

a) David Group has been paying a dividend of ZWL\$ 3 per share in the past and the dividend has increased to \$3.50 over the period. Compute the cost of equity share if the current market price is ZWL\$ 7.45.

(4 marks)

b) Suppose the expected return from the market is 7.2% and the government Treasury bill rate is at 3.6% and β is 1.36. Calculate the cost of capital.(4 marks)

c) A firm's cost of equity (K_e) is 14.7%, the average income tax rate of shareholders is 20.9% and brokerage cost of 4.2% is expected to be incurred while investing their dividends in alternative securities. Compute the cost of retained earnings.

(4 marks)

d) Examine the factors that affect the capital structure of a mining firm in Zimbabwe using examples.

(13 marks)

[Total 25 Marks]

QUESTION 3

a) A industrial firm pays \$21 800 per month in fixed costs and also pay \$33.44 per unit to produce its chemical products.

i) Calculate the total costs of producing 1 123 units. (2 marks)

ii) Calculate the total costs of producing zero (0) units. (2 marks)

b) A management official at ZEGU has been presented with the following information

Selling price	\$28.80
Fixed costs	\$18 442
Variable costs per unit	\$21.88

Required:

- i) Calculate the Break-even in units and sales value. **(5 marks)**
- ii) Assume that there is inflation such that the selling price and variable cost increase. The selling price per unit increases by 3% and variable costs per unit increase by 5%. Calculate the Break-even units and sales value. **(8 marks)**
- c) Elucidate the problems associated with financial information analysis with the aid of examples. **(8 marks)**
- [Total 25 marks]**

Question 4

- a) Peter-John Limited targets Andrew-James Group which has 38 113 154 outstanding shares which are currently trading at \$0.35 in the market. Calculate the value of Andrew-James Group. **(4 marks)**
- b) Fact Limited has total assets of £12 505 006, current liabilities of £2 900 040 and non-current liabilities of £5 003 012.
- i) Calculate the firm value of Fact Limited. **(4 marks)**
- ii) Calculate the total equity for Fact Limited. **(4 marks)**
- c) Explain the defensive measures that can be put in place against takeovers. **(13 marks)**

END OF EXAMINATION QUESTION PAPER.

FORMULAS

$$FV_n = PV * (1 + r)^n$$

$$r = \left(\frac{FV}{PV}\right)^{1/n} - 1$$

$$PV_0 = \frac{FV}{(1+r)^n}$$

$$PV \text{ Perp} = \frac{C}{r}$$

$$PV \text{ annuity due} = (1 + r) * PV \text{ of annuity}$$

$$r = \frac{QR}{m}$$

$$PBP = \frac{\text{Original cost of the project (initial outlay) (IO)}}{\text{Annual cash inflow (CF)}}$$

$$AAR = \frac{\text{Av Inc}}{\text{Av Inv}} * 100$$

$$PI = \frac{PV \text{ of CFs}}{IO}$$

$$FV_n - PV = (1 + r)^n$$

$$PV_0 = \frac{FV}{(1+r)^n}$$

$$PV \text{ ann} = \frac{C}{r} * (1 - (1 + r)^{-n})$$

$$FV \text{ ann} = \frac{C}{r} * ((1 + r)^n - 1)$$

$$FV \text{ ann due} = (1 + r) * FV \text{ of annuity}$$

$$EAR = (1 + \frac{QR}{m})^m - 1$$

$$\text{Payback period} = Y + \frac{B}{C}$$

$$NPV = \sum \frac{CF_n}{(1+r)^n} - IO$$

$$IRR = A + B * \frac{C}{D}$$

$$ENCF = \sum CF_i * P_i \quad ENPV = \left(\sum \frac{ENCF}{(1+r)^n}\right) - IO$$

$$\text{Variance } (\delta^2) = \sum (CF - ENCF)^2 * P_i$$

$$\text{Standard deviation } (\delta) = \sqrt{\delta^2}$$

$$\text{Coef of var} = \frac{\text{Standard deviation}}{\text{Expected return/Expected cashflow}} \quad \text{RADR} = R_f + R_p$$

$$NPV = \sum \frac{\alpha_n * CF_n}{(1+r)^n} - IO$$

$$\text{WACC/ } K_o = \sum W_i K_i$$

$$K_e = \frac{D}{MP}$$

$$K_e = \frac{D}{MP} + g$$

$$K_p = \frac{D}{NP}$$

$$NP = \text{Issue Price} - \text{Flotation price}$$

$$K_e = \frac{EPS}{MP_e}$$

$$K_e = R_f + (R_m - R_f) * \beta$$

$$K_e = R_f + \beta_1 * RP_1 + \dots + \beta_n * RP_n + \mu$$

$$K_d = \frac{I}{NP} * (1 - t)$$

$$NP = \text{Amnt of D} - \text{D Acq fees} + \text{Prem} - \text{Disc}$$

$$K_r = K_e * (1 - t) * (1 - b)$$

maximum level = reorder level - (minimum consumption) * (minimum lead times) + reordering quantity

minimum level = reorder level - (average usage * average lead time)

Reorder level = maximum usage * maximum lead time or minimum level + consumption during lead time.

$$E(R_i) = R_f + \beta_1(R_{m1} - R_f) + \dots + \beta_n(R_{mn} - R_f)$$

$$E(r) = \sum (\text{Prob} * \text{Return})$$

$$\delta^2 = \sum \text{Prob} * (R - E(r))^2$$

$$\text{Standard deviation } \delta = \sqrt{\delta^2}$$

$$Er(p) = \sum W_i * E(r)_i$$

$$CV = \frac{\delta}{x}$$

$$CV = \frac{1}{n} * \sum (R_x - E(R_x))(R_y - E(R_y))$$

$$CV = \sum P_i (R_x - E(R_x))(R_y - E(R_y))$$

$$r_{xy} = \frac{\text{Covariance}_{xy}}{\delta_x \delta_y}$$

$$\delta_{AB}^2 = W_A^2 \delta_A^2 + W_B^2 \delta_B^2 + 2W_A W_B \text{Cov}_{AB}$$

$$\delta_p = \delta_m * W_m$$

$$RP = (R_m - R_f)$$

$$NCA + CA = NCL + CL + E$$

Total CF = CF from operating activities + CF from investing activities + CF from financing activities

$$\text{Current ratio} = \frac{CA}{CR}$$

$$\text{Cash ratio} = \frac{CA+CE}{CL}$$

$$\text{Debt-equity ratio} = \frac{TD}{TE}$$

$$\text{Interest cover ratio} = \frac{EBIT}{Int}$$

$$\text{Days' sales in inventory} = \frac{365 \text{ days}}{Inv T/O}$$

$$\text{Receivables turnover} = \frac{S}{TA}$$

$$ROA = \frac{NI}{TA}$$

$$EPS = \frac{E}{\text{Ordinary shares in issue}}$$

$$BEP = \frac{FC}{Cont}$$

$$\text{Dividends per share} = \frac{\text{Dividends announced during the period}}{\text{Number of shares in issue}}$$

Value of target firm = Market share price * number of outstanding shares

Value of target firm = Total assets - total liabilities

$$CML(R_p) = R_f + \frac{E(R_m - R_f)}{\delta_m} * \delta_p$$

$$E(R_i) = R_f + \beta(R_m - R_f)$$

$$TA = TL + E$$

$$NWC = CA - CL$$

$$\text{Acid/quick test ratio} = \frac{CA-Inv}{CL}$$

$$\text{Total debt ratio} = \frac{TA-TE}{TA}$$

$$\text{Equity multiplier} = \frac{TA}{TE}$$

$$\text{Inventory turnover} = \frac{COGS}{Inv}$$

$$\text{Receivables turnover} = \frac{S}{TR}$$

$$\text{Profit margin} = \frac{NI}{S}$$

$$ROE = \frac{NI}{TE}$$

$$P/E \text{ ratio} = \frac{\text{price per share}}{EPS}$$

$$Cont = SP - VC$$

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