ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF LAW, BUSINESS INTELLIGENCE AND ECONOMICS

DEPARTMENT OF ECONOMICS, MARKETING AND ENTREPRENEURSHIP

EXAMINATION PAPER

MODULE CODE	:	CBM223
MODULE TITLE	:	Business Finance
DURATION	:	3 Hours
LEVEL	:	**2.2**
DATE	:	30 JUL 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
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 [25 MARKS]

Read the case study below and answer the questions that follow.

Wanga Enterprises uses three sources of capital and these are debt, equity and retained earnings. The company has been enjoying good fortunes and its share price is now at ZiG$5.43. The firm paid a dividend of ZiG$0.84 to its shareholders and the dividend is expected to grow by 1.32%. The shareholders have been investing their dividends in other investments and incurring a 1.79% brokerage costs and facing 23.38% tax. The firm issued a ZIG$320 125 debenture at 16.32% interest with a discount rate of 9.7%. The company uses the dividend plus growth approach to compute its cost of equity.

Required:

a) Evaluate the key features of debt capital that distinguishes it from equity capital. **[9 marks]**

b) Determine the cost of equity capital using the dividend plus growth approach. **[5 marks]**

c) Calculate the cost of debt capital which Wanga Enterprises face. **[5 marks]**

c) Calculate the cost of retained earnings for Wanga Enterprises. **[6 marks]**

SECTION B: ANSWER ALL QUESTIONS [75 MARKS]

QUESTION 1

a) An enterprise is investing $14 080 000 in a football project. The risk-free rate of return is 9.33%. Risk premium expected by the Management is 11.23%. Calculate the risk adjusted discount rate. **[3 marks]**

b) Management at Ingwe Farms expect a risk premium of 9.1% and the treasury bill rate is 4.35%. The cashflows of the project undertaken by the firm are given below.

Year 1		Year 2		Year 3	
Cash flows ($)	Probability	Cash flows ($)	Probability	Cash flows ($)	Probability
1 977	0.31	4 000	0.42	6 400	0.44
3 239	0.32	5 020	0.18	5 350	0.06
7 142	0.21	1 335	0.11	8 250	0.29
4 800	0.16	11 970	0.29	6 630	0.21

The discount rate is 10.27%.

i) Calculate the risk adjusted discount rate for the project. **[3 marks]**

ii) Calculate the net present value of the project using the discount rate and appraise on its viability to management at Ingwe Farms. **[5 marks]**

iii) Calculate the net present value of the project using the discount rate and appraise on its attractiveness to management at Ingwe Farms. **[5 marks]**

b) Evaluate the differences between systematic and unsystematic risk using diagrams and examples. **[9 marks]**

QUESTION 2

a) Evaluate the strengths and weaknesses of Modigliani and Miller theory used in the determination of capital structure **[13 marks]**

b) With aid of examples, critically evaluate the factors that affect working capital of an organisation of your choice. **[12 marks]**

QUESTION 3

a) Chingwa United firm pays $21 888 per month in fixed costs and also pay $15.29 per unit to produce its sanitary products.

i) Determine the total cost of producing 1589 units of sanitary products you produce 1000 units? **[4 marks]**

ii) Compute the total variable costs if the total costs are $35 995. **[4 marks]**

b) The manager at Allan Zhizha Co. has been presented with the following information:

Selling price	$42.71
Fixed costs	$36 897
Variable costs per unit	$25.63

Calculate the break-even in units and sales value. **[7 marks]**

c) Assume that there is deflation in Zimbabwe and the selling price and variable cost decrease. The selling price per unit decreases by 7.48% and variable costs per unit decrease by 5.46%. Calculate the Break-even units and sales value. **[10 marks]**

FORMULAS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$ENCF = \sum CF_i * P_i$

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

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

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

$Coef\ of\ var = \frac{Standard\ deviation}{Expected\ return/Expected\ cashflow}$

$RADR = R_f + R_p$

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

$WACC/\ K_o = \sum W_i K_i$

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

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

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

NP = Issue Price – Flotation price

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

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

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

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

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

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

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.

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

$E(r) = \sum (Prob * Return)$

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

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

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

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

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

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

$r_{xy} = \frac{Covariance_{xy}}{\delta_x \delta_y}$

$\delta_{AB}^2 = W_A^2 \delta_A^2 + W_B^2 \delta_B^2 + 2 W_A W_B Cov_{AB}$

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

$\delta_p = \delta_m * W_m$ $E(R_i) = R_f + \beta (R_m - R_f)$

RP= (Rm – Rf) $TA = TL + E$

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

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

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

Cash ratio= $\frac{CA+CE}{CL}$ Total debt ratio= $\frac{TA-TE}{TA}$

Debt- equity ratio= $\frac{TD}{TE}$ Equity multiplier= $\frac{TA}{TE}$

Interest cover ratio = $\frac{EBIT}{Int}$ Inventory turnover = $\frac{COGS}{Inv}$

Days` sales in inventory = $\frac{365\ days}{Inv\ T/O}$ Receivables turnover = $\frac{S}{TR}$

Receivables turnover = $\frac{S}{TA}$ Profit margin = $\frac{NI}{S}$

ROA = $\frac{NI}{TA}$ ROE) = $\frac{NI}{TE}$

EPS = $\frac{E}{Ordinary\ shares\ in\ issue}$ P/E ratio = $\frac{price\ per\ share}{EPS}$

BEP = $\frac{FC}{Cont}$ Cont = SP – VC

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

Value of target firm = Market thare price * number of outstanding shares
Value of target firm = Total assets – total liabilities

END OF EXAMINATION PAPER.