



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF LAW, BUSINESS INTELLIGENCE AND ECONOMICS

DEPARTMENT OF ECONOMICS, MARKETING AND ENTREPRENEURSHIP

EXAMINATION PAPER

COURSE CODE : CBM 223
COURSE TITLE : BUSINESS FINANCE
SPECIAL REQUIREMENTS : **Non-programmable calculator**
DURATION : 3 Hours
LEVEL : 1.1
DATE : 13 FEB 2024

INSTRUCTIONS TO CANDIDATES:

1. No cell phones are allowed in the examination venue.
2. Use of silent, non-programmable calculators is allowed.
3. Answer **Any Four (4) questions**.
4. Begin each question on a new page.
5. The number of marks for each question or part question is shown in brackets []

QUESTION 1

a) The concept of economic profit is far removed from the accounting profit found in a company's income statement. While economic profit broadly equates to cash, accounting profit does not. There are many examples of companies going into liquidation shortly after declaring high profits. Explain the challenges associated with profit maximisation objective. **[10 marks]**

b) The fixed deposit scheme of Injiva National Bank offers the following interest rates:

Period of deposit	Deposit rate per annum
45 days to 180 days	2.50%
181 days to 364 days	4.32%
1 year and above	6.60%

If an amount of US\$115 000 invested today for 3 years, calculate its future value. Show the compound and simple interest earned over the investment period. **[8 marks]**

c) A bank offers an annual rate of 15% to its customers. Butcher Investment has \$1 000 000 that it wants to invest and has decided to deposit it with the bank so that it earns interest. However, the finance manager has not decided whether to invest the amount monthly, quarterly or semi-annually. Calculate the monthly interest rate, quarterly interest rate and semi-annual interest rate and appraise the manager on the best duration to make the investment. **[7 marks]**

QUESTION 2

Manyama investments has mutually exclusive projects that have the following information.

	Project A	Project B
Initial Investment	\$119 123	\$153 654
Cash flow Year 1	\$31 252	\$82 877
Cash flow Year 2	\$41 816	\$81 001
Cash flow Year 3	\$44 123	\$39 120
Cash flow Year 4	\$29 785	\$27 638

The cost of capital is 5%. Required

a) Calculate the payback period for each project and give advice on the best project to undertake.

[7 marks]

b) Calculate the Net Present Value of each project and give advice on the best project to undertake.

[10 marks]

c) Calculate the profitability index of each project and give advice on the best project to undertake.

[8 marks]

QUESTION 3

a) ABC pays a dividend of ZWL\$ 33 per share and the growth rate in dividend is expected to be 6.2%. Compute the cost of equity share if the current market price is ZWL\$ 79. [5 marks]

b) A company issues preference shares of the face value of \$90 each and dividends are paid as 12% of the face value. Compute the cost of preference share capital, if preference shares are issued at the following:

(i) At par. [5 marks]

(ii) At 10% premium. [5 marks]

(iii) At 5% discount [5 marks]

(iv) At par with 5% flotation costs. [5 marks]

QUESTION 4

a) ABC Investment holds three securities on the stock market and the following information has been gathered

Security	Weight	Expected Return
Industrial stock	30%	25%
Mining stock	20%	13%
Transport stock	50%	17%

Given the above information, calculate the portfolio return.

[5 marks]

b) Blockhead Investment has two investments that are mutually exclusive. Investment 1 has an expected return of \$25 123 Standard deviation of 5 033. Investment 2 has an expected return of \$80 070 Standard deviation of 6 156. Calculate the coefficient of variation and advice on the project which should be undertaken.

[5 marks]

c) The Treasury Bill rate is 10% and the market return is 15%. ZXY Investment holds four assets with the following information.

Asset	Beta
A	0.71
B	1.33
C	1.49
D	2.11

Calculate the expected return of each asset.

[8 marks]

d) Identify and explain **two** the alternatives to the Capital Asset pricing model.

[7 marks]

QUESTION 5

a) The total cash flows of an organisation come from 3 activities. With aid of examples explain the cash flows from these activities.

[15 marks]

b) Explain two (2) working capital policies that a company can follow.

[10 marks]

THE END

FORMULAS

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

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

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

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

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

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

$$PBP = \frac{IO}{CF}$$

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

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

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

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

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

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

$$NP = \text{Amnt of D} - \text{D Acq fees} + \text{Prem} - \text{Disc} \quad K_r = K_e * (1 - t) * (1 - b)$$

$$K_o = \sum W_i K_i$$

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

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

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

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

$$\delta_p = \delta_m * W_m$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$RP = (R_m - R_f)$$

$$TA = TL + E$$

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

$$NWC = CA - CL$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$Cont = SP - VC$$