NATIONAL UNIVERSITY OF LESOTHO

FACULTY OF HEALTH SCIENCES

BACHELOR OF NURSING SCIENCE – YEAR 2

BNM 2303 – FINANCIAL MANAGEMENT – MAIN EXAMINATION

January 2023 60 marks

Instructions:

1. This paper has 4 questions.
2. Each question carries 20 marks.
3. Question paper is divided into Section A and B.
4. Answer **question ONE** in Section A. Question ONE is compulsory.
5. Answer **ONLY TWO (2) questions** in Section B.

SECTION A – ANSWER ALL QUESTIONS IN THIS SECTION

Question one

Discuss the functions of the finance manager and explain how they are related to the objectives of the financial management in an organisation.

[20 Marks]

SECTION B – ANSWER ONLY TWO (2) QUESTIONS IN THIS SECTION

Question two

a) What is Risk? **[2 Marks]**

b) Describe two types of Risk. **[4 Marks]**

c) What is return? State the differences between Actual and expected returns. **[4 Marks]**

d) Dr. Tsoeunyane, a risk-averse surgeon is considering an investment in two mutually exclusive assets: Oncology and X-ray. The two assets have the following discrete probability distribution of projected annual net cash flows:

ONCOLOGY		X-RAY	
Probability	**Estimated cash flows**	**Probability**	**Estimated cash flow**
0.30	M20 000	0.10	M60 000
0.40	M50 000	0.60	M30 000
0.30	M40 000	0.30	M20 000

Required:

Calculate the expected value of the projected annual cash flows of each of the projects. **[10 marks]**

Question three

Discuss **five** (5) importance of the Cost of Capital in Financial Management. **[10 Marks]**

The cost of various types of capital of Koena Medicare Ltd is given below along with the target market proportions.

Sources of Capital	Amount	Proportion(W) of total Capital	Cost of Capital (K)
Debts	M240 000	30%	5.68
Preference Share Capital	M 80 000	10%	9.33
Equity Share Capital @ M100	M400 000	50%	13.30
Cost of Retained Earnings	M 80 000	10%	13.00
TOTAL	**M800 000**	**100%**	

Required:

Compute the Weighted Average Cost of Capital (WACC) for Koena Medicare LTD. **[10 Marks]**

Question Four

a) Suppose you are the finance manager of Khotsong Paediatrics Centre and you have a meeting with the Board of Directors in a month. You need to create a financial analysis of the organisation. You also have been asked to compare Khotsong Paediatrics to other paediatrics healthcare organisations.

i). What do you need to complete a financial Analysis? [2 Marks]

ii). Mention the classifications of the ratios? And indicate on which financial statement each of the classes of ratios focuses. [9 marks]

iii). What are the operating indicators used to analyse the financial performance of the organisation? [6 Marks]

b) From the following information calculate the following ratios:

i). Earnings Per Share(EPS)

ii). Dividend per share

iii). Dividend Yield [3 Marks]

Net income after tax	M550 000
Ordinary Share dividend	M230 000
Number of Ordinary shares issued	2 500 000
Market price per share	M2.50

APPENDIX A – USEFUL FORMULAS

A.1 FINANCIAL RATIO ANALYSIS

Current Ratio = $\frac{Current\ Assets}{Current\ Liabilities}$

Quick Ratio = $\frac{Current\ Assets - Stock}{Current\ Liabilities}$

Debt Ratio = $\frac{Total\ Liabilities}{Total\ Assets}\ x\ 100\%$

Debt-to-Equity Ratio = $\frac{Total\ Liabilities}{Equity(Capital\ Fund}\ x\ 100\%$

Gross Profit Margin = $\frac{Gross\ Profit}{Sales}$ x 100%

Stock Turnover Ratio = $\frac{Sales}{Average\ Stock}$

Fixed Assets Turnover = $\frac{Sales}{Fixed\ Aseets}$

Inventory days =

$$\frac{Average\ Inventory}{Cost\ of\ sales}\ x365\ days$$

Price/Earnings (P/E) ratio = $\frac{Market\ Price\ per\ share}{Earnigs\ per\ share}$

Net Profit Margin = $\frac{Net\ income}{Sales}$ x 100%

Return on Assets = $\frac{Net\ Income}{Total\ Assets}$ x 100%

Return on Equity = $\frac{Net\ Income}{Equity}$ x 100 %

Net profit as a % of sales=$\frac{Net\ Income}{Sales}$ x 100

Expenses to sales=$\frac{Expenses}{Sales}$ x 100

Accounts Receivable days =

$$\frac{Accounts\ receivable}{Cost\ of\ sales}\ x\ 365\ days$$

Accounts Payable days =

$$\frac{Accounts\ payable}{Purchases}\ x\ 365\ days$$

Earnings per Share(EPS) =$\frac{Net\ Income}{No.of\ Shares}$

Dividend Yield = $\frac{Dividend\ per\ share}{Market\ price\ per\ share}$

A.2 BREAK-EVEN ANALYSIS

Profit (Surplus) model

S = I – E
Where;
S,= stands for Surplus;
I, = for Income;
E, = for Expenditure.

Break-even Relationships (general Model)

S = [p – v]Q – F + D

Where,
S = stands for Surplus.
p -= for price,
Q = for quantity (activity level),
v = for variable cost per unit,
F = for fixed costs, and
D = for donations.

Break-even Quantity

Q = $\frac{F-D}{p-v}$

Quantity Yielding a Target Surplus

Q = $\frac{S+F-D}{p-v}$

Price Yielding a Target Surplus

$$p = \frac{S + F - D}{Q} + v$$

Donation Yielding a Target Surplus

$$D = F + S - [p - v]Q$$

A.3 TIME VALUE OF MONEY

Future Values

$$FV = PV(1+r)^n$$

Where:
- **FV** = stands for Future value;
- **PV** = for present value,
- **r** = for interest rates, and
- **n** = for number of periods.

Present Values

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

Where:
- **FV** = stands for Future value;
- **PV** = for present value,
- **r** = for interest rates, and
- **n** = for number of periods.

A 4 COST OF CAPITAL

COST OF DEBT $= K_{dbt} = \frac{I}{p}$

Where,
- $\mathbf{K_{dbt}}$ = Cost of debt before tax
- **I** = Interest
- **P** = Principal Amount

Cost of Preference share capital =

$$K_{pref} = \frac{D+1/n(RV-NP)}{1/2(RV+NP)}x100$$

Where,
- $\mathbf{K_{pref}}$ = Cost of preference share capital
- **D** = Annual dividend
- **RV** = Redemption Value
- **NP** = Net profit/Net Income
- **n** = number of years

Dividend Yield Method = $K_e = \frac{Div}{MP}$

Where,
- $\mathbf{K_e}$ = Cost of Equity Capital
- **Div** = Dividend per Share
- **MP** = Market price per share

Dividend Growth Method = $K_e = \frac{Div1}{NP} + g$

Where,
- $\mathbf{K_e}$ = Cost of capital
- $\mathbf{Div_1}$ = Dividend of last year
- **g** = growth in dividend (%)

Cost of Retained Earnings =

$$K_r = K_e(1-t) \times (1 - b)$$

Where,
- **t** = rate of tax (%)
- **b** = brokerage charges
- **g** = growth in dividend (%)

Weighted Average Cost of Capital (WACC) =

$$K_a = W_d K_d + W_p K_p + W_e K_e$$

Where,
- $\mathbf{K_a}$ = WACC
- $\mathbf{W_d}$ = Weighted for cost of debt(K_d)
- $\mathbf{W_P}$ = Weighted for cost of preference shares(K_p)
- $\mathbf{W_e}$ = Weighted for cost of equity capital (K_e)

A. 5 RISK AND RETURN

Expected Return =R = E(R) = $\frac{1}{n}\sum \mathbf{R_1 \times Pr(R_1)}$

Variance = σ^2_R = $\sqrt{\ }\sum (R_i - (E(R))^2 \times Pr(R)_i$

Where,

R_1, R_2 .....R_n = the return associated with n different outcomes**;**

n= number of possible outcomes

Where,

Var(R) = the variance of returns

σ = the standard deviation of returns

E(R) = the expected return or mean value of Returns

R_i = the return for the ***ith*** outcome

$Pr(R_i)$ = the probability of occurrence on the ***ith*** Outcome

n = the number of outcome considered.