BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF BANKING AND FINANCE

ADVANCED CORPORATE FINANCE (BS420)

DURATION: THREE HOURS

JUN 2024

INSTRUCTIONS TO CANDIDATES:

1) Answer any **four** questions.

2) Candidates will need non-programmable calculators.

3) Each question carries equal marks as indicated in square brackets.

4) Electronic data saving devices are not allowed into the examination halls.

QUESTION ONE

XYZ Ltd is currently enjoying very high growth. Currently it pays no dividends and has negative Free Cash Flows to Equity as a result of larger Capital Expenditure and Working Capital investments. It uses no debt in meeting its financial needs because of the high business risk and high borrowing costs. The company is not likely to change this in the near future. The current high growth phase is expected to last for a period of 4 years after which the company will enter a five-year transition period a slower growth rate. After this phase the growth rate in the company earnings will stabilize to a growth rate which is approximately equal to that of the gross domestic product which is the normal growth rate.

Current information reported in 2020
EPS=$300
CAPEX per share =$520
Depn per share =210
Revenue per share =$700
Working capital as a % of revenues=25%
Input of the high growth period
Expected growth rate in earnings =50%
Capex, depreciation and revenues will grow at 30%
Working capital will remain at 25% of revenue
Debt ratio will be 10% consisting of short term loans only
Mkt parameters for the period

Beta= 1.1   Rm=40%   Rf=20%

Input for the transition period

1. the growth rate in earnings will decline from 50% per year in year in year 4 to 15% per year 9 lineally
2. Capex will grow at 10% per year while depreciation will grow at 15% per year
3. Revenues will grow at 15% per year
4. Working capital will remain at 25% of revenues
5. Debt ratio will increase to 20%
6. The beta will decline linearly from 1.1 in year 4 to 0.6 in year9
7. Other market parameters
         Rm =40%, Rf= 20%

Inputs for the stable growth phase

1. earnings will grow at 15% per year in perpetuity
2. Capex will be roughly equal to depreciation
3. Revenues will grow at 10%
4. Working capital will remain at 25% of revenues
5. Debt ratio will increase to 45%
6. Market Parameters
         Beta=0.6   Rf = 20%   Rm= 40%

Required

Determine the value of XYZ Ltd.'s share.

[25 MARKS]

QUESTION TWO

A marketer is interested in the relation between the width of the shelf space for her brand of coffee (x) and weekly sales (y) of the product in suburban supermarkets (assume the height is always at eye level). Marketers are well aware of the concept of 'compulsive purchases', and know that the more shelf space their product takes up, the higher the frequency of such purchases. Suppose the marketer conducted the experiment over a twelve week period and observed the sample data as shown in the table below.

Week	Space (x)	Sales (y)
1	6	526
2	3	421
3	6	581
4	9	630
5	3	412
6	9	560
7	6	434
8	3	443
9	9	590

10	6	570
11	3	346
12	9	672

Required:

i. Estimate the sales in week 13 given width of the shelf space of 10. (12)

ii. Compute the standard error of the estimate. (3)

iii. Calculate the sample coefficient of determination (r^2) and interpret result. (3)

iv. Compute the sample coefficient of correlation. (2)

v. Test the significance of the correlation coefficient. (5)

[25 MARKS]

QUESTION THREE

a) Clearly examine the three main functions of the financial system. (10)

b) Given the following information;

Share purchase	1,000
Purchase price per share	$100
Annual dividend per share	$2.00
Initial margin requirement	40%
Call money rate	4%
Commission per share	$0.05
Stock price after one year	$110

Required calculate:

i. The leverage ratio. (2)

ii. The investor's return on margin transaction (R.O.E) if the stock is sold at the end of the year. (10)

iii. If the investor purchases a stock for $40 per share when the initial margin requirement is 50% and the maintenance margin requirement is 25%, at what price will the investor get a margin call? (3)

[25 Marks]

QUESTION FOUR

a) Define the term Machine learning. (2)

b) Describe the three types of machine learning. (8)

c) Discuss the five (5) myths of valuation. (15)

[25 Marks]

QUESTION FIVE

a) Describe any four key financial decisions in financial strategy. (5)

b) Explain what happens to financial strategy as a firm moves through the product life cycle and in relation to the Boston Matrix. (20)

QUESTION SIX

a) Explain any five uses of security market indices. (10)

b) Zano Ltd. had revenue per share of $200 in 2022. EPS of $5. The growth rate in earnings and dividends is expected to be 10%, $\beta = 0.9$, Rm = 20, Rf = 15%. The company paid out 60% of its dividends.

Required:

i. Calculate the Price to Sales ratio based on these fundamentals. (3)

ii. Comment on your results assuming that the company was selling at price to sales ratio of $0.3 at the time of the analysis. (3)

c) Critically evaluate the relevance of Prospect theory and Cumulative Prospect theory in asset pricing. (9)

[25 marks]

END OF EXAMINATION