

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF BANKING AND FINANCE

ADVANCED CORPORATE FINANCE (BS420)

DURATION: THREE HOURS

INSTRUCTIONS TO CANDIDATES:

NOV 2024

- 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

- a) Explain the analogy between financial and real options. (6)
- b) A telecommunications company based in Zimbabwe is considering investing in a project to introduce conference calls for prepaid network users. The company has a 12-year patent on the product and the initial cost of the project is \$2.875 billion with a present value of expected cash flow totalling \$3.422 billion. The project variance is 0.224. Calculate;
 - i. The value of the option to delay the project. (15)
 - ii. The project time premium. (4)

[25 Marks]

QUESTION TWO

ABC Company has a history of extra ordinary growth. Its growth rate is slowing down because it becoming a much larger company. Its products are maturing and facing stiff competition. The company does not pay dividends but has some free cash flows to equity. Current information reported;

Revenue per share = \$ 30

EPS = \$ 10

CAPEX per share = \$ 3

Depreciation per share = \$ 1

The high growth period is considered to be a transition period that will last for 3 years. The following are the inputs for the high growth period (forecasted);

ROE = 30%

Retention Ratio = 100%

The firm pays no dividends now and is unlikely to do so in the near future because its equity holders are more interested in capital gains than current dividends.

The market parameters during this period will be as follows;

1. $\beta = 1.4$ $R_m = 30\%$ $R_f = 20\%$
2. CAPEX, depreciation and revenues are expected to grow at the same rate as earnings
3. Working capital is expected to be maintained at 20% of revenues throughout the period
4. The debt ratio for this period will be low at 10%

After the transition period, the firm will enter a stable growth period. Inputs for the stable growth period;

1. Expected growth rate = 10%
2. Market parameters; $\beta = 0.9$ $R_m = 30\%$ $R_f = 20\%$
3. Because of the limited growth opportunities in the market, CAPEX should be substantially decreased, any capital expand will be offset by depreciation
4. Working capital is expected to remain at 20% of revenues which will grow at 10% per year
5. Debt ratio will increase to 40% as the company tries to leverage its earnings

Required:

Compute the value of Equity.

[25 Marks]

QUESTION THREE

You are a Director of Rashfords T-shirts, a large-size manufacturing company that prints and sells t-shirts of all sizes. Since you have just been appointed, you are unfamiliar with the estimations that have been done.

You are provided with the following summary for the year 2023

	Advertising Cost (\$)	Number of t-shirts sold
January	13 600	2 100
February	14 000	2 471
March	13 300	2 054
April	13 900	2 610
May	17 200	2 656

June	10 600	2 563
July	21 000	3 243
August	10 900	3 227
September	14 555	2 247
October	20 600	3 335
November	19 920	3 076
December	18 920	2 921

REQUIRED:

- i. Estimate the number of t-shirts sold in January 2024 if advertising expenditure is \$14 800. (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 FOUR

- a) Describe any four key financial decisions in financial strategy. (4)
- b) Explain what happens to financial strategy as a firm moves through the product life cycle and in relation to the Boston Matrix. (21)

[25 marks]

QUESTION FIVE

- 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 SIX

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]

END OF EXAMINATION