National University of Science and Technology

Think in Other Terms

FACULTY OF COMMERCE

DEPARTMENT OF FINANCE

BACHELOR OF COMMERCE HONOURS DEGREE IN ACCOUNTING, ACTUARIAL SCIENCE, BANKING, FINANCE, FISCAL STUDIES, HUMAN RESOURCES MANAGEMENT, MANAGEMENT, MARKETING MANAGEMENT AND RISK MANAGEMENT & INSURANCE

SUPPLEMENTARY EXAMINATION– JULY/AUGUST 2015

CORPORATE FINANCE I CFI 2101

TIME ALLOWED: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Answer any **FOUR (4)** questions.
2. Show all workings.
3. Write neatly and legibly.
4. Use a degree of accuracy of 2-decimal places in the final answer

INFORMATION TO CANDIDATES

1. This paper contains **SIX (6)** Questions.
2. Each full question carries a total of **25 marks** and part marks are indicated in brackets at the end of each part question.
3. This paper contains **SIX (6)** printed pages.
4. Candidates may write on the question paper but shall not write in the answer booklet during reading time.

QUESTION 1

a) Suppose you were the financial manager of a non-profit making organisation, what kind of goals would be appropriate? (12-marks)
b) How has deregulation and technological advancement assisted in the globalisation of financial markets? (13-marks)

{25-marks}

QUESTION 2

The Ngomeni Company is considering a new packing machine. The existing packing machine cost $500,000 five years ago and is being depreciated using straight-line over a ten-year life. Nobel's management estimates that the old machine can be sold for $100,000. The new machine costs $600,000 and would be depreciated over five years using straight-line. There is no salvage value for the new machine. The new machine is more efficient and would reduce packing expenses (damaged goods) by $120,000 per year for the next five years. The marginal tax rate is 30%.

a) What are the cash flows related to the acquisition of the new machine? [5-marks]
b) What are the cash flows related to the disposition of the old machine? [5-marks]
c) What are the cash flows related to the disposition of the new machine? [5-marks]
d) What are the operating cash flows for each year? [5-marks]
e) In determining the relevant cash-flows to be used in evaluating projects, what are the factors to be taken into consideration? [5-marks]

{25-marks}

QUESTION 3

You are evaluating an investment project, Project A, with the following cash flows:

Period	Cashflow ($)
0	-100 000
1	35 027
2	35 027
3	35 027
4	35 027

Calculate the following:

a. Payback period [2-marks]

b. Discounted payback period, assuming a 10% cost of capital [2-marks]

c. Discounted payback period, assuming a 16% cost of capital [2-marks]

d. Net present value, assuming a 10% cost of capital [2-marks]

e. Net present value, assuming a 16% cost of capital [2-marks]

f. Profitability index, assuming a 10% cost of capital [2-marks]

g. Profitability index, assuming a 16% cost of capital [2-marks]

h. Internal rate of return [4-marks]

i. Modified internal rate of return, assuming reinvestment at 0% [2-marks]

j. Modified internal rate of return, assuming reinvestment at 10% [2-marks]

k. What conclusions can you draw from the NPV regarding the project's ability to add value to the shareholder? [3-marks]

QUESTION 4

a) Atanas Ltd wishes to invest in a project and the following conditions subsist:

Variables	Atanas	Project	Market
Expected Returns	10%	16%	14%
Standard Deviation of Returns	5%	7%	4%
Expected Returns Correlation with the market	+0.30	+0.60	1

You establish that risk free rate is 6% and that correlation between Atanas and the project is 0.1. If the project is accepted it will account for 20% of the value of Atanas after tax.

You are required to:

i. Calculate the beta for Atanas and the project (4 marks)

ii. Calculate Atanas' existing cost of equity (3 marks)

iii. Calculate the standard deviation of the portfolio and expected return for Atanas after accepting the project (6 marks)

iv. Calculate the project's required return based on CAPM (3 marks)

b) Distinguish between the following:

i. Delisting and dual listing (3 marks)

ii. Organized exchange and over the counter market (3 marks)

iii. Intermediation and disintermediation (3 marks)

{25-marks}

QUESTION 5

a) Mbalabala Corporation (MC) has decided to venture into business. The management of the firm is expecting a before-tax rate of return of 24 per cent on the estimated total investment of $500,000. The firm is considering two alternative financial plans: (*i*) either to raise the entire funds by issuing 50,000 ordinary shares (equity) at 10 per share, or (*ii*) to raise $250,000 by issuing 25,000 ordinary shares at $10 per share and borrow $250,000 at 15 per cent rate of interest. The tax rate is 50 per cent. The management also approaches ***YOU***, a recent graduate in Corporate Finance from the National University of Science and Technology for advice.

i) Deduce the earnings per share (EPS) and return on equity (ROE) for each alternative financing option (5-marks)

ii) Which financing option will be the best if shareholders interests are to be fairly represented and earnings before interest and taxes are expected to be constant (5-marks)

iii) If option (*ii),* with 50% debt financing is chosen, calculate the expected gain/loss to equity holders for taking on financial leverage (5-marks)

b) KLM Ltd. has decided in favour of a capital restructuring. Currently, KLM Ltd. uses no-debt financing. Following the restructuring, however, debt will be $1 million. The interest rate on the debt will be 9 percent. KLM Ltd. currently has 200,000 shares outstanding, and the price per share is $20

i) If the restructuring is expected to increase EPS, what is the minimum level for EBIT that KLM Ltd.'s management must be expecting? Ignore taxes in your response (5-marks)

c) What is the difference between operating and financial leverage (5-marks)

{25-marks}

QUESTION 6

a) Asmar Holdings has recently paid a dividend of $10. The company's dividends are expected to grow at the rate of 45% per annum for the next 3 years. During these 3 years the required rate of return will be 30%. After that, the dividend will grow at a constant rate of 20% per annum forever. During this period, the required rate of return will fall to 25%.

   i. Calculate the value of the share. (5-marks)

   ii. What are the limitations of the model you have used? (3-marks)

b) Valentine intends to start a dry cleaning business and wishes to borrow money for this purpose. He feels that he will not be able to repay anything for the first 2 years. After that he is prepared to pay $20 000 per year for 5 years. The bank agrees to advance him at 18% interest per annum. How much will they be willing to advance him under these conditions? (3 marks)

c) Assume that a $1 000 par value bond with 2 years to maturity pays a 5% coupon once every year and is currently selling for $900. Calculate the yield to maturity. (3 marks)

d) A company that pays a quarter of its income as dividend has just paid a dividend of $12 per share. The return on equity is 15% and the required rate of return is 12%. Calculate the value of the share. (2 marks)

e) Differentiate the security market line and the capital market line. (5 marks)

f) Distinguish between the current yield and the yield-to-maturity (YTM), and state any two advantages of using the YTM over the current yield in determining the bond's yield. (4 marks)

{25-marks}

{END OF EXAMINATION PAPER}