FACULTY OF COMMERCE
DEPARTMENT OF FINANCE
BACHELOR OF COMMERCE HONOURS DEGREE IN FINANCE
PART II 2ND SEMESTER FINAL EXAMINATION – MAY 2011
CORPORATE FINANCE [CFI 2201]
TIME ALLOWED : 3 HOURS

INSTRUCTIONS

1. The paper is 3 hours. Candidates may write on the question paper but shall not write in the answer book during reading time.
2. Answer any ALL questions in Section A and any Three questions in Section B.
3. Electronic calculators may be used.
4. All workings to be shown.
5. Answers to be written only on the top pages.

INFORMATION TO CANDIDATES

1. Section A carries a total of 40 marks and each question in Section B carries a total of 20 marks.
2. The businesses in this question paper are intended to be fictitious
3. The paper contains SEVEN (7) QUESTIONS.

<u>SECTION A</u> [Valuation and issuing of securities]- TOTAL 40 MARKS

THIS SECTION IS COMPULSARY

Question One

1.1 Alpha Construction, a Bulawayo based construction firm, is reviewing its projects for the third quarter 2011, and current investigations have gathered the following data.

i. The firm is in the 35% marginal tax bracket.

ii. **Debt:** The firm can raise an unlimited amount of debt, by selling $1000, 9%, 10 year semi-annual coupon bonds. Similar bonds pay an interest higher than Alpha Construction's bonds, to counter this; the Investment Banker has recommended a discount of 3% on par value. The firm will also pay floatation costs of 2% per bond.

iii. **Preferred Stock:** Alpha Construction can sell 10% preferred stock at its $100 per share par value. The total costs of issuing and selling the preferred stock is expected to be 4% of par value and an unlimited amount of stock can be sold under these terms.

iv. **Common Stock:** The firm's stock is currently selling for $70 per share. The firm recently paid a cash dividend of $5 per share. The firm's dividends have been growing at a constant annual rate of 5%, and is expected to continue in the future. The stock will be underpriced by $4.00 per share and floatation costs are expected to amount to $3.00 per share. The firm can sell an unlimited amount of new common stock under these terms.

v. **Retained Earnings:** In measuring this cost, the management of Alpha Construction ignores the tax bracket or brokerage fees of owners. Currently retained earnings are at $200,000 and are expected to grow at a constant rate of 5% per annum, once these retained earnings are exhausted, the firm will issue new common stock as a form of common stock equity financing.

vi. **Capital structure**

The firm's target capital structure is as follows:

Source of Capital	**Weight (%)**
Long-term Debt	35
Preferred Stock	15
Common stock equity	50
Total	**100**

vii. **Investment Opportunities**

The following construction projects are available to the firm

Investment Opportunity	**Expected Internal Rate of Return –IRR(%)**	**Initial Investment ($)**
NUST Shopping Complex	10.1	600,000
Buscod Shopping Complex	12.9	150,000
ZINWA office Complex	9.7	500,000
Private College	11.8	450,000

As a student on attachment with a Consultancy Company, you have been assigned to advise the management of Alpha Construction, on their financial strategy for the third quarter 2011.

Required:

a) Calculate the specific cost of each source of financing. [7 marks]

b) Determine the weighted average cost of capital(WACC) associated with the level of financing above and below the breaking point. [5 marks]

c) Using the results in b) above along with other information, draw the firm's weighted marginal cost of capital schedule (WMCC) and investment opportunities schedule (IOS). [3 marks]

d) Explain fully, which, if any, of the available investments you would recommend the firm to accept and how much total new financing will be required. [4 marks]

1.2 You are evaluating the potential purchase of a small business currently generating $42,500 of after-tax cash flow (i.e. D_0= $42,500). Based on a review of similar-risk investment opportunities, you must earn 18% rate of return on the proposed purchase. What would be the firm's value if cash flows are expected to grow at an annual rate of 12% for the first two years followed by a constant annual rate of 7% from year 3 to infinity? [4 marks]

1.3 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. [5 marks]

1.4 Zimbabwe National Water Authority (ZINWA) recently issued a 10 year bond, with a par value of $1000. A coupon of rate of 10% will be paid semi-annually, and the required yield is 12%. What should be the selling price of the bond [4 marks]

1.5 State and explain any **four** reasons why a firm may opt for a private placement as opposed to listing in an exchange. [8 marks]

SECTION B

ANSWER ANY THREE QUESTIONS FROM THIS SECTION, EACH QUESTIONS CARRIES 20 MARKS

Question Two [Leverage & Capital Structure Theory]

2.1 The EBIT-EPS chart suggests that the higher the debt ratio, the higher are the earnings per share (EPS) for any level of Earnings Before Interest and Taxes (EBIT) above the indifference point. Why do firms sometimes choose financing alternatives that do not maximize EPS? [4 marks]

2.2 Townsend & Butcher, a sports equipment manufacturing company operating from Bulawayo, has $3million in debt outstanding, bearing an interest rate of 12%. It wishes to finance a $4million expansion project which is aimed at increasing its capacity and has three alternatives, as follows:

i. Additional debt at 14% interest

ii. Preferred stock with 12% dividend

iii. Sale of common stock at $16 per share

The company currently has 800,000 shares of common stock outstanding and is in a 40% tax bracket.

a) If earnings before interest and taxes (EBIT) are presently $1.5million, what would be earnings per share for the three alternatives, assuming no immediate increase in operating profit? [6 marks]

b) Determine the indifference point between the common stock and debt financing alternative. [4 marks]

2.3 Outline the key assumptions underlying the MM capital structure theory [6 marks]

Question Three [Lease Financing]

Your firm intends to obtain the issue of an asset but is uncertain of the best financing method to be employed. The financing methods under consideration are as follows:

i. **To borrow and purchase the asset.** Borrowing would cost 12% before tax, the current competitive market rate for debt. The asset would cost $100,000 to purchase and will have a guaranteed salvage value of $10,000 after five years. Expenditure on the asset qualifies for a 25% writing-down allowance on a reducing balance.

ii. **To lease the asset.** Two financial leases are being considered and the details are as follows:

Year	*Payments to be made*	
	Lease A	Lease B
0	$20,000	$4,000
1	20,000	8,000
2	20,000	16,000
3	20,000	30,000
4	20,000	50,000

If the asset is leased, the salvage value will accrue to the lessee. The firm's average cost of capital is 15% .

a. Advise on the best method of financing the use of the asset if the firm is subject to corporation tax at 40% with one year delay and has large taxable profits [15 marks]

b. Leasing can be attractive to a lessee when he/she is faced with different cash flows from those of the lessor. State and explain any three factors that may lead to such a difference. [5 marks]

Question Four [Dividend Policy]

4.1 "There is generally no consensus on the impact of dividend on the firms' value and cost of capital". Outlining the key assumptions underlying each theory, explain the impact of dividend policy on the firm's value and cost of capital according to:

a) Modigliani and Miller Irrelevance Theory [5 marks]

b) Bird- in-the-hand Theory [5 marks]

4.2 Explain any five factors that affect a firm's dividend payout policy [10 marks]

Question Five [Derivatives]

5.1 Using examples where possible explain the following terms as used in derivatives trading:

a. Long forward position [2 marks]

b. Hedging [2 marks]

5.2 Outline the key features that distinguish futures from forward contracts. [5 marks]

5.3 A trader buys a European put on a share for $3. The stock price is $42 and the strike price is $40. Draw a payoff diagram showing the variation of the trader's profit with the stock price at the maturity of the option. Under what circumstances will the trader make a profit? [3 marks]

5.4 "Speculation in futures markets is pure gambling. It is not in public interest to allow speculators to trade on futures exchange". Discuss this view point [8 marks]

Question Six [Mergers and Acquisitions]

6.1 Giving examples; briefly describe each of the following type of mergers

a. Horizontal merger [2 marks]

b. Congeneric merger [2 marks]

c. Conglomerate merger [2 marks]

6.2 Distinguish between an operating mergers and pure financial mergers [4 marks]

6.3 Describe the procedures typically used by an acquirer to value a target company, whether it is being acquired for its assets or as a going concern [10 marks]

Question Seven [Working Capital Management]

7.1 Explain the term cash conversion cycle (CCC) as used in working capital management [2 marks]

7.2 You have recently joined, Delta Corporation, as a student on attachment, in the Purchasing Department and have received the following credit terms from three suppliers;

Supplier	**Terms**
A	1/10 net 55 EOM
B	2/10 net 30 EOM
C	2/20 net 60 EOM

a. Determine the approximate cost of forgoing the cash discount from each supplier. NB: 360 days for a year [3 marks]

b. Assuming the firm needs short-term financing, recommend whether it would be better to forgo the cash discount or take the discount and borrow from a bank at 15% annual interest. [3 marks]

7.3 Lubelihle Nkomo recently leased a space at Bulawayo Centre, and opened a new business; Lube's Dress Code. Business has been good at Lube's Dress Code but she has run out of cash. This has led to late payment of some orders, which in turn is beginning to cause a problem with suppliers. Lubelihle plans to borrow from the bank to have cash ready as needed, but first she needs a forecast of just how much she must borrow. Accordingly, she has asked you to prepare a cash budget for the critical period around Christmas, when cash needs will be especially high.

Sales are made on a cash basis only. Lubelihle's purchases must be paid for during the following month. She pays herself a salary of $4,800 per month, and the rent and rates total $2,000 per month. In addition, she must make a tax payment of $12,000 to the Zimbabwe Revenue Authority (ZIMRA) in December of each year. The current cash on hand (on December 1) is $400, but if she gets the loan she has to maintain an average bank balance of $6,000- this is her target cash balance (disregard till cash, which is insignificant because she keeps a small amount in hand in order to lessen the chances of robbery).

The estimated sales and purchases for December, January and February are shown below. Purchases for November amounted to $140,000

	Sales	Purchases
December	$160,000	$40,000
January	40,000	40,000
February	60,000	40,000

Suppose Lubelihle starts selling on credit basis in December 1, giving her customers 30 days to pay, and half of her customers accept these terms. Prepare a cash budget for December, January and February, clearly indicating the company's loan requirements at the end of each month. [12 marks]