# NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY <br> FACULTY OF COMMERCE DEPARTMENT OF FINANCE <br> BACHELOR OF COMMERCE HONOURS DEGREE IN <br> Accounting; Finance; Banking <br> Insurance \& Risk Management <br> Actuarial Science <br> Marketing; Management <br> PART II - $2^{\text {ND }}$ SEMESTER FINAL EXAMINATION - JUNE 2007 <br> CORPORATE FINANCE II [CFI 2201] <br> TIME ALLOWED: 3 HOURS 10 MINUTES 

## INSTRUCTIONS

1. This Paper Is $\mathbf{3}$ Hours $\mathbf{1 0}$ Minutes, Of Which $\mathbf{1 0}$ Minutes Is Reading Time.
2. This Paper Contains Six [6] Questions.
3. Attempt Any Four [4] Questions.
4. Each Question Carries 25 Marks.
5. Show All Your Workings.

## QUESTION 1

1.1 The ZESA Power utility issued a 6 percent coupon bond with a $\$ 1,000$ face value 25 years ago. Coupon payments are made semi annually. You have researched other semi-annual pay bonds of similar maturity and credit quality and determine that the appropriate yield to maturity is 5 percent.
a. Assuming the bond now has 10 years remaining until maturity, what price would you be willing to pay for this bond.?
b. Calculate the current yield of the bond. What are the drawbacks of the current yield measure?.
1.2 Define reinvestment risk. Which has more reinvestment rate risk, a 1-year bond or a 10 -year bond? Explain.
1.3 Define interest rate risk. Which bond has more interest rate risk, a 1-year bond or a 30 -year bond? Explain.
1.4 Assume that the current market price of Schweppes preference shares is $\$ 85$, with a dividend of $\$ 7$. What would be the expected rate of return if an investor's required rate of return is $8 \%$ ? Should the investor consider buying the preferred stock?
1.5 Barclays current stock price is $\$ 36$ and its last dividend was $\$ 2.40$. In view of Barclay's strong financial position and its consequent low risk, its required return is only $12 \%$. If dividends are expected to grow at a constant rate in the future and if the required rate of return is expected to remain at $12 \%$, what is Barclay's stock price 5 years from now? [
1.6 State three limitations of the model used in [1.5]

## QUESTION 2

2.1 A company is planning a $\$ 50$ million dollar expansion, which is to be financed by selling $\$ 20$ million in new debt and $\$ 30$ million in new common stock. The before tax required rate of return on debt is $9 \%$ and $14 \%$ for equity. The company is in the $40 \%$ tax bracket. Also note the following:

- The company has a target capital structure of $40 \%$ debt and $60 \%$ equity
- Bonds pay a $10 \%$ coupon (semi annual payout) mature in 20 years and are currently selling for $\$ 849.54$

The company is a constant growth firm that has just paid a dividend of $\$ 2.00$ and sells for $\$ 27$ per share and has a growth rate of $8 \%$
a. Explain why the company's bonds are trading at a discount to par value.
b. Calculate the firm's after tax cost of debt.
c. If flotation costs for new equity are $10 \%$, calculate the new cost of equity
d. Calculate the company's weighted average cost of capital. (WACC)
2.2 Using a diagram, explain what is meant by the "traditional capital structure theory"
2.3 Assuming a world without taxes, and that all the underlying assumptions of the Miller and Modigliani are met.
a. Calculate the value of Delta Ltd, an all equity financed firm which has an annual net operating income of $\$ 1,000$ million with an overall capitalization rate of $10 \%$.
b. What are the critical conclusions made from this proposition?
c. What are the main implications for a financial manager who accepts the arguments of Miller and Modigliani in a world with no taxes approach?

## QUESTION 3

3.1 Distinguish between the following:
a. A primary and secondary market.
b. A foreign bond and a Eurobond.
c. A stock dividend and a stock split.
d. An put option and a call option.
e. Target capital structure and optimal capital structure.

### 3.2 Identify the key motives for financing with convertibles?

3.3 Compare and contrast warrants and convertible bonds.
3.4 Under what circumstances would an issuer redeem callable bonds?
3.5 State reasons as to why an investor would purchase puttable bonds?
3.6 State the advantages of equity financing over debt financing.

## QUESTION 4

4.1 Distinguish between linear derivatives and non-linear derivatives
4.2 Define a swap. What are the drawbacks of this derivative instrument?
4.3 Define an option. What are the advantages of using this derivative instrument?
4.4 Compare and contrast futures and forward contracts.

## QUESTION 5

5.1 Explain, using illustrations where necessary, the methods you would employ to finance current assets.
5.2 Explain, giving reasons on how you would expect a firm's cash balances to respond to the following changes?
a. Interest rate increase.
b. The volatility of daily cash flow decreases.
c. The transaction cost of buying or selling marketable securities goes up.
5.3 Discuss the concept of concentration banking.

## QUESTION 6

6.1 Distinguish between a tax-free and a taxable merger. Are there circumstances in which you would expect buyer and seller to agree to a taxable merger?
6.2 Assess whether it matters that an acquisition is made with cash or with common stock?[3]
6.3 As a shareholder in a company, would you like it to have anti - takeover amendments? What are some of these devices?
6.4 NUST Storage Company is considering the acquisition of MSU Wire Corporation with common stock. Relevant financial information is as follows:

|  | NUST | MSU |
| :--- | :--- | :--- |
| Present Earnings (000) | $\$ 4,000$ | $\$ 1,000$ |
| Common shares outstanding (000) | 2,000 | 800 |
| Earnings per share | $\$ 2.00$ | $\$ 1.25$ |
| Price/earnings ratio | 12 | 8 |

NUST plans to offer a premium of 20\% over the market price of MSU stock.
a) What is the ratio of exchange of stock? How many new shares will be issued? [4]
b) What are earnings per share for the surviving company immediately following the merger?
c) If the $\mathrm{P} / \mathrm{E}$ ratio for NUST stays at 12 , what is the market price per share of the surviving company? What would happen if the $\mathrm{P} / \mathrm{E}$ ration went to 11 ?

