

**FACULTY OF COMMERCE  
DEPARTMENT OF FINANCE**

**BACHELOR OF COMMERCE HONOURS DEGREE IN FINANCE**

**PART II – 1<sup>ST</sup> SEMESTER FINAL EXAMINATION – DECEMBER 2002  
CORPORATE FINANCE I: CFI 2101**

**INSTRUCTION**

1. Answer question one and three others.
2. All questions carry equal marks.
3. Use a calculator where necessary.
4. Answer to each question should start on a new page.
5. Discount Tables provided may be used.
6. Time allowed is 3 hours.
7. Show all your workings.
8. Write legibly.

**Question one**

**[25 marks]**

- a. You own a house and wish to rent it out for 2 years while you are working abroad. Two prospective tenants appear John Dube and Steve Moyo. John offers you \$1 000 on the signing of the lease, and \$3 00 at the end of each year. Steve offers \$4 000 at the end of year one and \$3 500 at the end of year 2. Your time value of money is 10% per annum.
- i) Find the present value of John's offer and that of Steve
  - ii) Indicate which offer you would accept and why? [5marks]
- b. Assume that it is now January 1, 1999. On January 1, 2000, you will deposit \$1 000 into a savings account that pays 8% per annum.
- i) if the bank compounds interest annually, how much will you have in your account on January 2003.?
  - ii) Suppose you deposited the \$1 000 in four payments each on January 1 of 2000, 2001, 2002 and 2003. How much will you have in your account on January 1 2003, based on 8% annual compounding?.
  - iii) Suppose you deposited 4 equal payments in your account on January 1 of 2000, 2001, 2002 and 2003. Assuming an 8% interest rate, how large would each of your payments have to be for you to obtain the same ending balance as calculated in Part [i]. [5 marks]

- c. The Campbell Company is evaluating the proposed acquisition of a new milling machine. The machine's base price is \$108 000, and it would cost another \$12 500 to modify it for special use by your firm. The machine falls into the 3-year class and it would be sold after 3 years for \$65 000. The machine would require an increase in net working capital [inventory] of \$5 500.

The milling machine would have no effect on revenues, but it is expected to save the firm \$44 000 per year in before tax operating costs mainly labour. Campbell's marginal tax rate is 35%.

- i. What is the net cost of the machine for capital budgeting purposes? [3 marks].
- ii. What are the net cashflows in years 1, 2, & 3? [6 marks]
- iii. What is the terminal year cashflow? [3 marks]
- iv. If the project's cost of capital is 12%, should the machine be purchased? [3 marks].

**[Total : 15 marks]**

**Question Two**

**[25 marks]**

- (a) What is the difference between Net Cashflow (NCF) and Free Cashflow (FCF)? Under what circumstances would the two be equal? [5 marks]
- (b) In what way is the re-investment rate assumption embodied in the NPV and IRR methods? [5 marks]
- (c) "Betas have a tendency over time to revert to 1, low beta increasing and high betas decreasing". Why might this be? [5 marks]
- (d) Explain what you understand by the term "a dollar today is worth more than a dollar at the end of the year" [5 marks]
- (e) What does it mean to say the project's cost of capital is say 10%? What is the rationale for using this cost of capital to discount future investment cashflows? [5 marks]

**Question Three** (25 marks)

When determining the financial objectives of a company it is necessary to take three types of policy into account – Investment Policy, Financing Policy and Dividend policy. Discuss the nature of these three types of policy decisions, commenting on how they are interrelated and how they might affect the value of a firm.

**Question Four** (25 marks)

It has been suggested that the Agency theory provides insights into reasons why a variety of objectives are adopted by the Managers of a company. Discuss this suggestion.

**Question Five** (25 marks)

- (a) List eight assumptions of the Capital Asset pricing model [CAPM] [16 marks]
- (b) Explain how a finance manager may use CAPM when considering alternative financing arrangements? [9 marks]

**Question Six** (25 marks)

Explain why Net Present value rule is a desirable investment decision rule

**Question Seven** (25 marks)

What are the shortcomings of the payback period rule, and why, despite these shortcomings, is the payback still used by many firms as an important input in the investment decision?