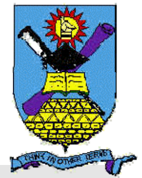

National University of Science and Technology

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING

SUPPLEMENTARY EXAMINATION PAPER: 2012/2013

DATE:	**JULY 2013**
SUBJECT:	**FINANCIAL MANAGEMENT: CAC 4204**
TIME ALLOWED:	**THREE (3) HOURS**
MARKS:	**100**

INSTRUCTIONS TO CANDIDATES

1. Answer **ALL** questions
2. Use the examination book provided
3. Use black or blue pen
4. Begin each question on a new page
5. Submit all answer books and
6. Maths tables are provided

QUESTION 1 [25 MARKS]

D & F is a telecommunications entity. It provides a variety of services to the major tele-communications operators in Europe and parts of Asia. It has been trading for 10 years and has shown spectacular growth in revenue and profits over the 10-year period, although there has been some volatility year to year. Revenue for the current year is likely to be €550 million and earnings €50 million. These figures make it one of the largest private operators, but it is still much smaller than most of its customers and its nearest publicly-listed direct rival.

D & F has been financed by equity provided by the original shareholders, many of whom still work in the entity, and by loans from banks. There are 50,000 shares currently in issue. The current debt: equity ratio is 80: 20, using book values. No shares have changed hands over the past 10 years, so there has been no serious attempt to place a value on them. New investments are evaluated using a cost of capital of 10%, which is the average for the industry and also judged by D & F's bankers and other advisors to reflect the average business risk of D & F's operations. The average P/E for the industry is currently 14.

D & F's bankers are now suggesting an initial public offering (IPO) of D & F's shares as most European stock markets have shown strong sustained growth over the past three or four years.

The shareholders are in agreement with the suggestion in principle but have asked you, D & F's Financial Manager, to advise them.

Required

(a) Discuss the advantages, disadvantages and challenges of pursuing an IPO in D & F's circumstances at the present time. Conclude with a recommendation.

NB. Calculations are not the main purpose of this question, but credit is available for calculating some simple figures to support your discussion. **[9]**

(b) Advise on the roles that would be played by the following organisations in D & F's IPO:

- **i.** Investment bank **[2]**
- **ii.** Stockbroker **[2]**
- **iii.** Potential institutional investors in the issue **[2]**
- **iv.** D & F's Treasury Department **[2]**

(c) The following methods of issuing shares are being suggested:

- **i.** Private placing **[4]**
- **ii.** Public offer for sale by either fixed price or tender **[4]**

Discuss the advantages and disadvantages of these methods and conclude with a recommendation of the preferred method of issue for D & F. **(A report format is not required for this question.)**

QUESTION 2 [25 MARKS]

B & C is classified as a small unquoted company for tax purposes and is liable to tax at 21%. The company is considering the purchase of a new computer system. The Chief Executive has been advised that it might be advantageous to lease the computer system rather than buy with a secured bank loan. The before-tax cost of a bank loan to B & C would be 11½%. Apart from the possible financial benefits which might arise, he has been told that leasing provides a hedge against obsolescence.

The capital cost of the computer would be $50,000. The leasing company, which is not the supplier or manufacturer of the equipment, has offered what it considers to be very favourable terms for the lease of the computer. Payments would be $15,000 per annum for five years. The first payment would be made at the beginning of the lease contract. This would be followed by four further payments at the beginning of each of the next four years. Insurance and maintenance of the computer would be the responsibility of the lessee. At the end of year 5, the second-hand value of the computer is expected to be $5,000.
The leasing company pays tax at the marginal rate of 31%. Tax is paid the year after the related cash flows arise. Lease payments are allowable in full for tax purposes. Tax allowances are available on the computer at 25% on a reducing balance basis. The company's required rate of return on equity is 15% and it considers this deal to be of about the average risk of its commercial ventures. The lessor will be able to finance the purchase of the computer from retained earnings.
B & C is currently all equity-funded, with a share capital of 150,000 $1 shares. You can assume its current cost of equity is 14%.

Required

a) Evaluate the financial decision concerning the lease from the point of view of both the lessee and the lessor. **[12]**

b) The Chief Executive of B & C claims that the evaluation is basically a capital budgeting exercise and that the company's weighted average cost of capital is a more appropriate rate to use as a discount rate. Discuss the validity of the Chief Executive's comments. **[6]**

c) Demonstrate the effect on the cost of equity of taking out the loan and calculate the company's new weighted average cost of capital. **[7]**

QUESTION 3 [25 MARKS]

D & C is a manufacturer of expensive, built-to-order motor cars. The company has been trading for 25 years and has seen year-on-year growth of sales and profits. Whereas most of the large, mass-production motor manufacturers have experienced over-capacity and falling profit margins in recent years, D & C has a waiting list of six months for a new car. All cars are manufactured in the UK, but there are sales outlets throughout Europe and the Far East. The chief executive of the company, who is still the major shareholder, is considering extending the distributor network into the USA where there is a rising demand. At present, American customers have to order direct from the UK.

A detailed assessment of the costs and likely incremental revenues of opening distributorships into major US cities has been carried out. The initial cost of the investment is US$4.5 million. The cash flows, all positive and net of all taxes, are summarized below.

Year	1	2	3	4
Cash flow (US$ million)	1.75	1.95	2.50	3.50

The following information is available.

- **i.** The expected inflation rate in the USA is 2 per cent a year.
- **ii.** Real interest rates in the UK and USA are the same. They are expected to remain the same for the foreseeable future.
- **iii.** The current spot rate is US$1.6 per £1 sterling.
- **iv.** The risk-free rate of interest in the USA is 4 per cent per annum and in Britain 5 per cent per annum.

These rates are not expected to change in the foreseeable future.

- **i.** The company's post-tax WACC is 14 per cent per annum, which it uses to evaluate all investment decisions.
- **ii.** The company is financed by £10 million shareholders' funds (book values) and £2 million long-term debt which is due to be retired in two years' time.

The company can finance part of the investment from cash flow but, as it is also expanding operations in the UK, the chief executive would prefer external finance if this is available on acceptable terms. He has noted that borrowing rates in the euro-debt market appear very favourable at the present time. At 3 per cent they are below the rates in both the UK and the USA.

Required

(a) Calculate the sterling net present value of the project using both of the following methods:

- **i.** By discounting annual cash flows in sterling. **[5]**
- **ii.** By discounting annual cash flows in US$. **[5]**

(b) **Discuss:**

- **i.** The use of WACC as a discount rate in an international investment decision in general terms and as it applies to D & C. **[3]**
- **ii.** The main risks to be faced by a company such as D & C when it moves into a new international market, and how it might manage those risks. **[4]**
- **iii.** The main methods of financing overseas operations and the factors that the company should consider before making a decision about borrowing in euro debt. **[8]**

QUESTION 4 [25 MARKS]

HIJ is a private transport and distribution entity. It is considering three investment opportunities, which are not mutually exclusive. HIJ has no cash reserves, but could borrow a maximum of $30 million at the present time at a gross interest rate of 10%. Borrowing above this amount might be possible, but at a much higher rate of interest.
The initial capital investment required, the NPV and the duration of each project is as follows:

	Initial investment $million	**NPV(after tax) $million**	**Duration Years**
Project A	15.4	2.75	6
Project B	19.0	3.60	7
Project C	12.8	3.25	Indefinite

Notes

- **i.** The projects are not divisible and cannot be postponed.
- **ii.** The discount rate considered appropriate for all three investments is 12% net of tax.
- **iii.** HIJ pays corporate tax at 30%.
- **iv.** Assume cash flows, other than the initial investment, occur evenly throughout the duration of the investments.

Required

a) Calculate the profitability index and equivalent annual annuities for all three projects; explain the usefulness of these methods of evaluation in the circumstances here; and recommend which project(s) should be undertaken. **[15]**

b) Explain the differences between 'hard' and 'soft' capital rationing and which type is evident in the scenario here. Discuss, briefly, the advisability of the directors of HIJ limiting their capital expenditure in this way. **[5]**

c) You later discover that the discount rate used was nominal, but the cash flows have been calculated in real terms.

Explain, briefly, how the calculation for NPV should be adjusted and what effect the changes might have on your recommendation. You are not required to do any calculations for this section of the question. **[5]**

END OF EXAMINATION PAPER