SUBJECT 16J

ICSA INTERNATIONAL

CORPORATE FINANCIAL MANAGEMENT
JUNE 2004

The examination paper is divided into TWO Sections. Section A is compulsory and carries 40 marks. Candidates should attempt THREE questions from Section B, all of which carry 20 marks each.

You should allow yourself approximately 70 minutes in total to answer the questions in Section A, and 35 minutes for each of the questions attempted in Section B.

Friday morning 4th June 2004 *Time allowed: 3 hours*

SECTION A

(Compulsory – answer all parts of this question)

1. (a) Explain why, despite its drawbacks (which you should identify), Accounting Rate of Return is still widely used in the evaluation of capital investment projects. *(4 marks)*

(b) Discuss the costs associated with the use of short term finance. *(4 marks)*

(c) Suggest why a private company might go public. *(4 marks)*

(d) Identify four possible sources of finance for an organization other than ordinary share capital, debt and retained funds. *(4 marks)*

(e) Briefly explain the two principal new risks that a company might face in starting to do business overseas. *(4 marks)*

(f) What is the agency problem, and how are its effects limited? *(4 marks)*

(g) A company is planning to invest surplus funds in one of three short term investments. It will choose the investment on the basis of risk and return. The returns and risks of the three investments are as follows:

Investment	Return (% annual growth rate)	Risk (standard deviation of return)
A	10	5
B	12	6
C	9	5

(Continued)

(i) If the investment is to be considered in isolation, taking no account of any other investments, state, giving your reasons, which investment can be excluded immediately.

(ii) Explain why, if the investment selected from the three above is to be added to a portfolio of investments, it might now be possible for the investment excluded in (i) to be the best choice. *(4 marks)*

(h) A company's cost of equity capital is 12%, and the cost of its debt capital, which consists of 10% loan stock currently traded at par, is 10%. The company receives relief against corporation tax at 30% on interest paid. The market value of the ordinary shares is £30 million, and the market value of the loan stock is £20 million. Calculate the company's after-tax weighted average cost of capital. *(4 marks)*

(i) Three months ago, having secured a contract with a German customer, a British company bought a three month put option for Euro 10 million at a strike price of Euro 1.42 to the £. The current exchange rate is Euro 1.4523 – 1.4538 to the £. Calculate the value of the option to the company if it exercises it instead of converting Euro 10 million into Sterling at the current rate. *(4 marks)*

(j) What is the Capital Market Line? *(4 marks)*

(Total: 40 marks)

SECTION B

(Answer THREE questions from this Section)

2. (a) Microcomputer Systems plc is considering expanding its production plant in order to exploit a patent on a new disc security device, and is planning to select one of two possible manufacturing options. Option 1 involves heavier investment than Option 2, leading to a more rapid build up of sales:

Manufacturing Option 1 (£ million)

	Year 1	2	3	4	5
Capital Investment	(8.0)				
Cash Operating Costs	(2.4)	(5.3)	(5.6)	(6.3)	(5.5)
Sales	1.0	8.0	12.0	15.5	8.0

Manufacturing Option 2 (£ million)

	Year 1	2	3	4	5
Capital Investment	(6.0)				
Cash Operating Costs	(2.0)	(4.8)	(5.3)	(5.5)	(4.5)
Sales		6.0	10.0	12.0	6.0

(Continued)

Whichever manufacturing option it selects, Microcomputer Systems plc expects that the development of competing products will limit the effective life of its patent to five years.

The capital investment is to be made and paid for at the beginning of the first year. Disposal proceeds (the residual value of the assets acquired for the project) are received at the end of year 5. The assets acquired for the project are expected to have a residual value equal to 10% of their original cost.

Operating cash flows in years 1 to 5 are assumed to occur at the end of the year concerned.

The company expects the investment to have a similar risk to the rest of its business. Its weighted average cost of capital is 16%.

Tax is paid on profits one year in arrears. Microcomputer Systems plc expects to have taxable profits from other activities against which it can set capital allowances (including Writing Down Allowances at the rate of 25% on a reducing balance basis) and any project losses, so that a tax allowance arising from either a Writing Down Allowance or a project loss can be set against taxable profits in the same year, leading to a reduction in the tax paid in the following year. Although the company will treat the initial investment cost as being paid immediately at the start of the project, the first Writing Down Allowance should be calculated on the basis that the initial capital investment is made during the course of the first year. Microcomputer Systems plc's corporation tax rate is 30%. Assume that the Writing Down Allowance in the final year of operation is equal to the difference between the opening written down value in that year and the residual value.

REQUIRED:

Evaluate the two options and comment on whether Microcomputer Systems plc should invest to exploit the patent, and if so which manufacturing option it should select. *(12 marks)*

(b) Beta plc, one of Microcomputer Systems plc's competitors, evaluates capital investment projects using uninflated projections of sales and costs. Beta plc's cost of capital and level of risk are the same as those of Microcomputer Systems plc. Beta plc expects inflation over the next few years to be at the rate of 3% per annum.

(i) Calculate what discount rate Beta plc should use to evaluate capital investment projects. *(4 marks)*

(ii) Suggest what advantages there could be for Beta plc in basing its capital investment appraisal on inflated rather than uninflated projections. *(4 marks)*

(Total: 20 marks)

3. (a) Describe the main features of convertible bonds and loan stocks with warrants attached, and explain what benefits they offer to the issuer and to the investor.

(12 marks)

(b) Amalgamated Aggregates plc has issued 8 per cent convertible loan stock which is quoted at £112 per £100 nominal. The first date for conversion is in four years' time at the rate of 20 ordinary shares per £100 nominal loan stock. The current share price is £5.10.

REQUIRED:

(i) Calculate the conversion price.
(ii) Calculate the conversion premium as a percentage of the current share price.

(4 marks)

(c) Building Materials plc has issued loan stock with 2p warrants (2007) attached. The warrants give the right to purchase 1 ordinary share at a price of 150 pence for every 6 warrants in 2007. The current share price is 120 pence.

REQUIRED:

(i) Calculate the conversion premium as a percentage of the current share price.
(ii) Calculate the value of a warrant during the conversion period if the share price is then 200 pence.

(4 marks)
(Total: 20 marks)

4. (a) The financial management of Produits Domestiques SA (PD) is concerned that the company is not adequately taking account of risk when evaluating investment projects. It has undertaken a study to investigate different ways of reflecting risk. As part of this study, PD has estimated figures having a bearing on the risk of three investment projects that are currently under consideration. These figures, together with the capital investment and estimated returns on the projects, are shown below:

Project	Investment Euros million	Return r	σ_p	ρ_{pm}
A	3m	7%	10%	0.1
B	4m	13%	5%	1.0
C	5m	12%	4%	0.8

The values of σ_p have been estimated to provide a measure of risk, and represent the standard deviation of the return (measured in the same units as the return r). The values of ρ_{pm} represent the correlation between the return on a project and the market return.

The market return is 14% (with a standard deviation σ_m of 5%), and the risk-free return is 5.5%.

REQUIRED:

(i) Calculate the beta factor of each of the three projects. *(6 marks)*

(ii) Using the capital asset pricing model, present calculations to show for each project whether its return justifies its risk, and use the result of your calculations to give reasoned conclusions.

Use the following formula to calculate β_p:

$$\beta_p = \frac{\sigma_p \rho_{pm}}{\sigma_m}$$

(8 marks)

(b) Suggest how a large public limited company may determine its cost of capital.
(6 marks)
(Total: 20 marks)

5. (a) Diogenes plc is a small but rapidly growing company providing management services and supplies to IT companies. Since many of its customers are also growing rapidly, and are net consumers of cash, Diogenes is hoping to increase its business by allowing its customers extended credit terms, and is considering giving them 90 days to pay. Its terms of trade are currently net payment in 30 days, but its debtor day figure at present is 40 days. Diogenes believes that it can enforce the new payment terms, and estimates that the new policy will increase its annual turnover by 20% from its present level of £2 million.

Diogenes is aware of the risks of overtrading, and plans to finance the increased debtors by raising new long-term capital at a cost of 16%.

Diogenes' material costs are 30% of sales, and the company keeps 20 days' stock of raw materials. Its stocks of work-in-progress and finished goods are negligible. Other variable costs, related to purchases of services, are 55% of sales. Diogenes receives on average 35 days' credit from its suppliers.

REQUIRED:

Calculate the resulting changes in working capital and margin, and comment on whether the proposed change is worthwhile. Evaluate the proposed change.
(14 marks)

(b) Describe the services offered by factors. *(6 marks)*
(Total: 20 marks)

6. (a) Describe the circumstances in which a company may be threatened with liquidation, the actions that it can take to avoid it and the consequences for the present stakeholders. *(12 marks)*

(b) Explain why a company may choose to dispose of one of its businesses by arranging a management buy-out (MBO). *(8 marks)*

(Total: 20 marks)