Diploma in Financial Management

PAPER DB1, INCORPORATING SUBJECT AREAS
- **FINANCIAL STRATEGY**
- **RISK MANAGEMENT**

Module B

TUESDAY 7 JUNE 2005

QUESTION PAPER

Time allowed **3 hours**

This paper is divided into three sections

Section A	ALL 20 questions are compulsory and MUST be answered
Section B and Section C	THREE questions in total to be answered. Candidates MUST answer ONE question from Section B, ONE question from Section C and ONE further question from either Section B or Section C.

Present Value Rates are on page 2.

Do not open this paper until instructed by the supervisor

This question paper must not be removed from the examination hall

The Association of Chartered Certified Accountants

The net present value of £1 receivable at the end of n years at 10%

n	10%
0	1·00
1	0·91
2	0·83

Section A – ALL 20 questions are compulsory and MUST be attempted

Each question within this section is worth 2 marks.
Please use the Candidate Registration Sheet provided to indicate your chosen answer to each multiple choice question.

1 Consider the following hedging methods.

1. International diversification of operations
2. Matching receipts and payments
3. Leading and lagging
4. Forward exchange contracts

Which of the hedging methods above are suitable for hedging transaction exposure?

A 1 and 2

B 1, 2 and 3

C 2 and 3

D 2, 3 and 4

2 Clare plc pays a constant annual dividend of £0·60 per share and the shares of the company have a beta value of 1·2. The average market rate of return is 8% and the risk-free rate is 5%.

What is the predicted market value of a share in the company?

A £0·70

B £3·33

C £4·11

D £6·98

3 Consider the following two statements concerning futures contracts.

1. A futures contract is negotiated between a buyer and seller and can be tailored to the buyer's particular requirements.
2. A futures contract can be traded on a futures exchange.

Which of the following combinations (true/false) is correct?

	Statement 1	Statement 2
A	True	True
B	True	False
C	False	True
D	False	False

4 Homerton plc has arranged a £10 million loan with interest payable at six-monthly intervals at the six-month LIBOR rate. To hedge against an interest rate rise, the company has arranged a cap at a strike rate of 6·0% per year. The cost of the cap is 1·0% per year.

What is the cash settlement amount in a six-month period (183 days) for which the LIBOR rate at the option exercise date is 6·5%?

A £25,068

B £125,068

C £300,822

D £325,890

5 The following European-style options are held at their expiry date by an investor:

1. A call option of 20,000 shares in Peterhouse plc with an exercise price of 860p. The market price of the shares at the expiry date is 880p.
2. A put option of £600,000 in exchange for euros at a strike rate of £1 = €1·5. The exchange rate at the expiry date is £1 = €1·45.

Which one of the above combinations (exercise/lapse) concerning the options should be undertaken by the investor?

	Option 1	Option 2
A	Exercise	Exercise
B	Exercise	Lapse
C	Lapse	Exercise
D	Lapse	Lapse

6 Downing plc has £50 million loan stock with a fixed rate of interest of 6·0%. The company wishes to swap the fixed rate of interest for a floating rate of interest by entering into a swap agreement. A swap bank offers a fixed rate of 5·5%, and will receive LIBOR in return, for a swap agreement.

What will be the overall cost of borrowing for the company during the first year of the swap agreement if LIBOR for that period is 5·1%?

A 5·1%

B 5·5%

C 5·6%

D 6·4%

7 The directors of a listed company wish to comply with the requirements of the Combined Code and believe that, to do this, the following reports should be included in its annual report and accounts:

1. A corporate governance report
2. A report on board remuneration

Which one of the following combinations (required/not required) is correct?

	Report 1	Report 2
A	Required	Required
B	Required	Not required
C	Not required	Required
D	Not required	Not required

8 Girton plc is a UK business that has recently purchased machinery from a US supplier. Girton plc expects to pay $600,000 in three months' time for this purchase. To hedge against foreign exchange risk, the company uses currency futures. US$ futures contracts are currently trading at £/$1·80, which is also the current spot rate. The contract size is £62,500 and the tick value is $6·25 per tick.

What is the total gain or loss from trading futures contracts if, in three months' time, the future price is £/$1·65? (Work to the nearest contract)

A $4,687 gain

B $4,687 loss

C $46,875 gain

D $46,875 loss

9 Newham plc has a positive alpha factor of 1·4% and a beta of 1·1. The risk-free rate of return is 3·0% and the expected market return is 7·0%.

What is the actual return on the shares of Newham plc?

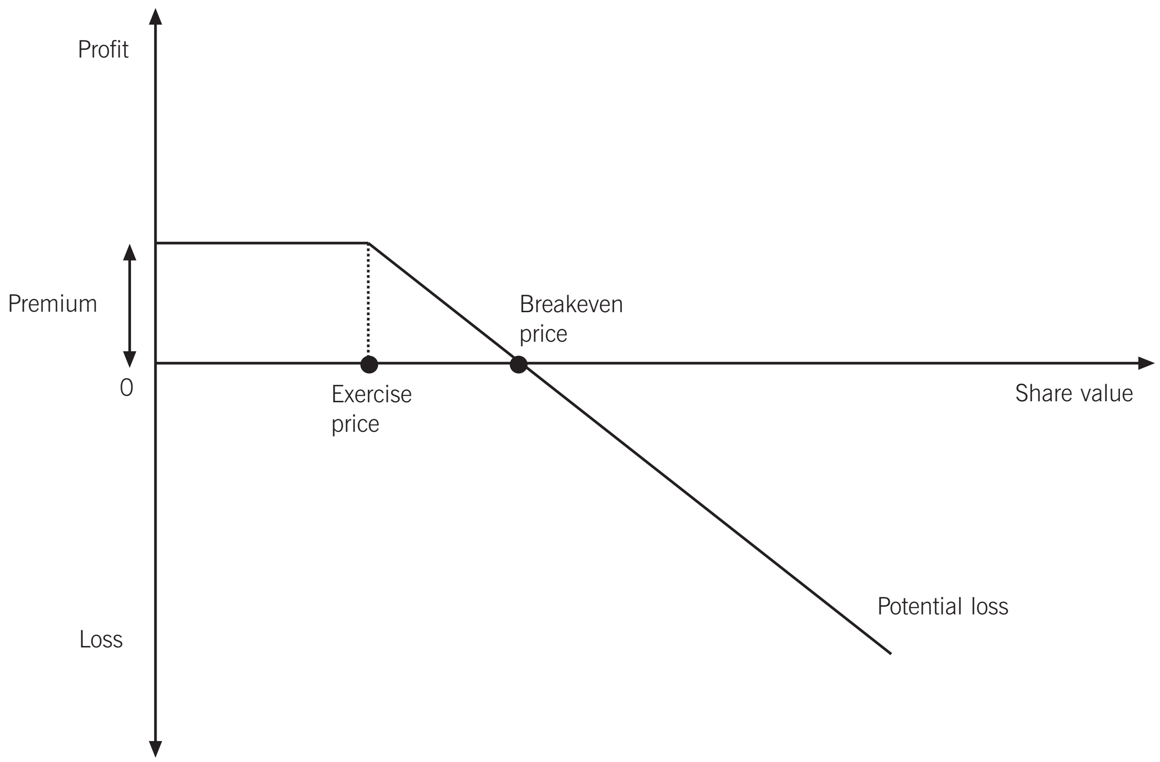
A 6·0%

B 8·8%

C 12·4%

D 15·4%

10 Consider the following graph:



Which one of the following positions is represented by the graph?

A Long call position

B Short call position

C Long put position

D Short put position

11 Merton plc is currently considering a new investment project and uses the NPV method for appraisal purposes.

Which one of the following items relating to the project should be included in the NPV appraisal?

A The payment of £30,000 for a market research report, which was commissioned last month and will be paid for next month.

B The apportionment of fixed costs of £10,000 per year over the life of the project to represent a fair share of the total fixed costs of the factory.

C An offer of £100,000 to acquire raw materials that were due to be sold but which will be used in the project if it goes ahead.

D A depreciation charge of £10,000 per year over the life of the project for machinery that will be used in the project.

12 During a period of inflation, which one of the following equations links the money rate of return (M) and the real rate of return (R)?

A (1 + M) = (1 + R) x (1 + inflation rate)

B (1 + R) = (1 + M) x (1 + inflation rate)

C (1 + M) = (1 + R) + (1 + inflation rate)

D (1 + R) = (1 + M) – (1 + inflation rate)

13 Oriel plc has issued convertible debentures each with a nominal value of £100. The debentures have one year to maturity and have a coupon rate of interest of 6%. The next interest payment is due to be made by the company in one year's time. Each £100 of debentures can be converted into 25 ordinary shares in Oriel plc in exactly one year's time and, at the conversion date, the ordinary shares are expected to be worth £5. Debentures not converted will be redeemed at their nominal value a day later. Debenture holders require a pre-tax rate of return of 10%.

What is the expected market value of each £100 of convertible debenture?

A £96·50

B £113·80

C £119·30

D £125·00

14 The shares of Lincoln plc have a beta of 0·4 and an expected rate of return of 5%. The expected market rate of return is 8%. The shares of Wadham plc have a beta of 1·5.

Using the Capital Asset Pricing Model, what will be the expected rate of return for investors in Wadham plc?

A 10·5%

B 11·3%

C 15·0%

D 18·8%

15 Consider the following statements.

1. A participating preference share gives the holder the right to participate in voting at the Annual General Meeting.
2. A cumulative preference share gives the holder the right to dividends due but which have not been paid in the past.

Which one of the following combinations (true/false) is correct?

	Statement 1	Statement 2
A	True	True
B	True	False
C	False	True
D	False	False

16 Pembroke plc has ordinary shares with a par value of £1·00 in issue. The company has a price earnings ratio of 20 times and had earnings per share of £0·50 for the financial year that has just ended. The gross dividend yield is 2·0%.

What is the dividend cover ratio of the company?

A 0·4 times

B 2·5 times

C 25 times

D 50 times

17 Keble plc is considering an investment project that has an initial outlay followed by constant annual net cash inflows throughout its infinite life. The present value of the project is £40 million and the internal rate of return on the project is 20%. The project has a profitability (present value) index of 4·0.

What are the annual net cash inflows and initial outlay of this project?

	Annual net cash inflows £m	Initial outlay £m
A	1·6	8·0
B	2·0	10·0
C	50·0	10·0
D	32·0	160·0

18 Linacre plc has twenty million £0·50 ordinary shares in issue and the company has a market capitalisation (value) of £60 million. The company has a constant dividend cover ratio of 2·0 times and has a price earnings ratio of 10 times. Dividends per share and profits are expected to remain constant for the foreseeable future.

What is the expected rate of return from the ordinary shares?

A 0·8%

B 5·0%

C 20·0%

D 30·0%

19 Trinity plc wishes to forecast its financial performance and position for the forthcoming year. The forecast model used by the company incorporates the following relationships:

Sales: total capital employed	3:1
Debt: total capital employed	0·4:1
Sales: net profit after tax	20:1

The sales for the forthcoming year are expected to be £30 million.

What is the forecast return on ordinary shareholders' funds for the period?

A 2·8%

B 10·7%

C 15·0%

D 25·0%

20 The following two statements concern the propositions which underpin the capital asset pricing model (CAPM).

1. Investors in shares require a return in excess of the risk-free rate to compensate for systematic risk.
2. Investors will require higher returns from shares in companies where the level of systematic risk is higher.

Which one of the following combinations (true/false) is correct?

	Statement 1	Statement 2
A	True	True
B	True	False
C	False	True
D	False	False

(40 marks)

Section B – Candidates MUST attempt ONE question from Section B, ONE question from Section C and ONE further question from either Section B or Section C.

1 Somerville plc owns a subsidiary, Wolfson Ltd. The subsidiary, which is a wholesaler of toys and games, has steadily increased annual sales and profits over the past five years. However, at a recent meeting of the Board of Directors of Somerville plc, it was decided that the subsidiary should be sold. This decision was in line with a policy of divestment that has been pursued over the last two years.

The Board of Directors does not know the value of a share in the subsidiary and has decided to obtain a range of possible values that might be used in any future negotiations.

The most recent summarised financial statements of Wolfson Ltd are as follows:

Balance sheet as at 31 May 2005

	£000	£000	£000
Fixed assets			
Freehold land and buildings at cost		560	
Less: accumulated depreciation		70	490
Fixtures and fittings at cost		84	
Less: accumulated depreciation		40	44
Motor vans at cost		164	
Less: accumulated depreciation		96	68
			602
Current assets			
Stocks	420		
Trade debtors	330	750	
***Less* creditors: amounts falling due within one year**			
Trade creditors	245		
Proposed dividend	60		
Taxation	105		
Bank overdraft	180	590	160
			762
Capital and reserves			
Ordinary £1 shares			200
Profit and loss account			562
			762

Profit and loss account for the year ended 31 May 2005

	£000
Sales	4,320
Profit before interest and taxation	356
Interest charges	35
Profit before taxation	321
Corporation tax	105
Profit after taxation	216
Proposed dividend	60
Retained profit for the year	156

The Board of Directors of Somerville plc commissioned an independent valuer to establish the current realisable value of the assets of Wolfson Ltd as at 31 May 2005 and the figures provided were as follows:

	£000
Freehold premises	876
Fixtures and fittings	24
Motor vans	52
Stocks	408

Trade debtors were considered to have current realisable values that were in line with their balance sheet values.

The required return from ordinary shareholders in similar businesses that are listed on the London Stock Exchange is 7%. The average price earnings ratio for similar listed businesses is nine times.

The dividends of Wolfson Ltd have been growing at a steady rate of 3% per year.

Required:

(a) Suggest four reasons why a company may decide to divest itself of part of its business operations. (4 marks)

(b) Calculate the possible values for an ordinary share in Wolfson Ltd using each of the following:

(i) net assets (net book value) method;

(ii) net assets (liquidation) method;

(iii) dividend growth valuation method;

(iv) price earnings ratio method. (12 marks)

(c) Briefly state, with reasons, which one of the valuation methods above is likely to provide the most realistic assessment of the market value of an ordinary share in Wolfson Ltd. (4 marks)

(20 marks)

2 Balliol Ltd produces a tracking device that can be attached to bicycles. The device is designed to help locate the whereabouts of stolen bicycles and is sold to wholesalers and retailers throughout the UK. The following sales and cost data relating to the tracking device has been produced by the company:

	Per device	
	£	£
Selling price		50·00
Less		
Materials	10·00	
Labour (see Note 1)	12·00	
Overheads (See Note 2)	15·00	37·00
Profit		13·00

Notes
1. Labour is a fixed cost.
2. Two-thirds of overhead costs incurred are fixed.

In recent years, sales of the device have been stable at £20 million per year. However, a new chief executive has been appointed who is determined to increase sales. He commissioned a market research report, which indicates that sales could be increased by 20% if a marketing campaign costing £1·5m per year is undertaken. The company has unused capacity within its factory and could easily cope with such an increase in sales.

All sales are on credit and the company divides its customers into three separate categories according to their payment characteristics. The three categories are as follows:

Category	Average collection period (Number of days)	Bad debts (%)
A	30	1·0
B	40	3·0
C	50	5·0

If the marketing campaign is launched and the increase in sales achieved, 20% of additional sales would be from Category A customers, 30% Category B customers and 50% Category C customers. The company would finance any expansion in its trade debtors by a bank overdraft, on which it would expect to pay interest at 10% per year.

All workings should be in £000s and should be made to one decimal place.

Required:

(a) What would be the effect of undertaking the marketing campaign on the annual net profits before tax of the company, assuming the increase in sales is achieved? (12 marks)

(b) Briefly comment on the results of your finding in (a) above. (3 marks)

(c) Outline steps that a company should take to ensure that credit customers pay on time. (5 marks)

(20 marks)

3 A well-functioning stock exchange is an essential requirement of a well-functioning private enterprise system.

Required:

(a) Briefly explain the nature and purpose of a stock exchange. (4 marks)

(b) Discuss the possible advantages and disadvantages for a company of obtaining a listing on a stock exchange. (16 marks)

(20 marks)

Section C – Candidates MUST attempt ONE question from Section B, ONE question from Section C and ONE further question from either Section B or Section C.

4 Selwyn plc is a large engineering business that was established three years ago following the merger of two smaller companies. The company is entirely financed by equity capital and has not issued any further shares since it was established. The company is listed on the London Stock Exchange and the current market price of each share in the company is £5·50.

To date, the directors of the company have been using the payback method of investment appraisal to evaluate project proposals but, at a recent meeting, it was decided to use the net present value method in the future. As a result of this decision, the directors are now trying to determine the cost of capital of the company.

The directors are trying to derive the cost of equity using the Gordon dividend growth model and the capital asset pricing model (CAPM). The following information has been extracted from the annual reports and accounts of the company:

Year 31 March	Dividends per share (pence)
2005	22·05
2004	21·00
2003	20·00

The finance director has identified a company, Cavendish plc, which has similar growth and risk characteristics to Selwyn plc and which is also listed on the London Stock Exchange. Cavendish plc is financed by 20% debt and 80% equity. The equity beta value of Cavendish plc is 1·4 and the debt is considered to be risk free.

The expected market return is 8·0% and the risk-free rate of return is 4·0%. The rate of corporation tax is 25%.

Required:

(a) **Explain the term 'cost of capital' and state why it is important for a company to calculate carefully its cost of capital.** (5 marks)

(b) **Calculate the cost of equity capital for Selwyn plc using:**

(i) **the Gordon dividend growth model; and**

(ii) **the capital asset pricing model.** (10 marks)

(c) **Briefly explain why a difference may arise between the two methods used in (b) above in deriving the cost of equity capital figure.** (5 marks)

(20 marks)

5 Robinson plc is an international construction business that is based in the UK. The company expects to receive €10 million in six months' time as the final payment for a bridge that the company recently completed in Germany. The senior executives of the company have been debating whether, and if so, how, to hedge against the foreign exchange risk associated with the receipt.

The euro has been falling against the £ sterling in recent months and some commentators believe that this trend will continue. Others believe, however, that the euro is likely to strengthen against the £ sterling in the near future as the euroland economies begin to grow. Faced with this uncertainty, the company is considering three possible options.

(i) To take out a currency option to hedge against the risk. An over-the-counter option is available from a bank at an exercise price of £1 = €1·50 and at a premium cost of £1·20 per €100.

(ii) To take out a forward exchange contract. Exchange rates are:

£/€ spot	1·4904 – 1·4944
6 months forward	€0·0095 – 0·0085 premium

(iii) To do nothing.

Required:

(a) Show the effect of each of the three options that are being considered, assuming that the exchange rate has moved in six months' time to:

(i) £1 = €1·55

(ii) £1 = €1·45 (8 marks)

(b) Discuss the results from (a) above. (4 marks)

(c) Briefly outline the main characteristics of currency options and forward exchange contracts and explain the main advantages and disadvantages of each. (8 marks)

(20 marks)

6 Caius plc is seeking a listing on the London Stock Exchange. The directors of the company are aware that certain listed companies have attracted considerable criticism in recent years over directors' pay and conditions. There have been claims in the media that the pay and conditions of some directors have been far too generous and that the remuneration policies adopted by some companies have been far from transparent. The directors of Caius plc are keen to ensure that, if the bid for a listing is successful, all aspects relating to their pay and conditions must be in line with best practice.

Required:

Write a report to the directors of Caius plc setting out the policies and frameworks that should be adopted by the company to ensure that directors' pay and conditions are fair and transparent.

(20 marks)

End of Question Paper