

# Diploma in Financial Management

PAPER DB1, INCORPORATING SUBJECT AREAS

- FINANCIAL STRATEGY
- RISK MANAGEMENT

TUESDAY 6 JUNE 2006

## 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** THREE questions in total to be answered.

**and** Candidates MUST answer ONE question from

**Section C** 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

# B Module E M



**The net present value of £1 receivable in n years at 10%**

n	10%
0	1.00
1	0.91
2	0.83
3	0.75
4	0.68

**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 to indicate your chosen answer to each multiple choice question.

1 Three important sources of long-term finance are loan capital, ordinary shares and preference shares.

**Which one of the following correctly ranks these sources of finance according to their relative cost to the business? (Where 1 represents the source of finance that is normally the most expensive and 3 represents the source that is normally the least expensive.)**

	Loan capital	Ordinary shares	Preference shares
<b>A</b>	1	2	3
<b>B</b>	2	3	1
<b>C</b>	3	1	2
<b>D</b>	2	1	3

2 Consider the following statements.

- (1) Both a stock split and a scrip issue convert equity reserves into ordinary share capital.
- (2) Both a rights issue and a Stock Exchange placing exclude the general public from subscribing to the issue of new shares.

**Which one of the following combinations (true/false) concerning the above statements is correct?**

	Statement 1	Statement 2
<b>A</b>	True	True
<b>B</b>	True	False
<b>C</b>	False	True
<b>D</b>	False	False

3 Romer plc used the IRR and discounted payback methods of investment appraisal to evaluate an investment proposal that has an initial cash outlay followed by annual net cash inflows over its life. Following this evaluation, it was found that the cost of capital figure used was incorrect and that the correct figure was lower.

**What will be the effect on the IRR and discounted payback period of correcting for this error?**

	IRR figure	Effect on Discounted payback period
<b>A</b>	No change	No change
<b>B</b>	Increase	Increase
<b>C</b>	Decrease	Decrease
<b>D</b>	No change	Decrease

4 Kepler plc has £1 ordinary shares in issue. For the year just ended, the company generated earnings per share of 25p. The dividend payout ratio for the year is 60% and the price/earnings ratio is 20 times. Ignore taxation.

**What is the gross dividend yield ratio of the company?**

- A** 3.0%
- B** 5.0%
- C** 8.3%
- D** 15.0%

- 5 Cassini plc has 40 million £0.50 ordinary shares in issue and has a market capitalisation of £160 million after announcing the following information concerning profits, dividends and projected growth. The company has reported post-tax profits of £20 million for the year that has just ended and expects profits to rise by 40% in the forthcoming year. The dividend cover ratio will be 2.5 times in the forthcoming year. After this, the company wishes to increase the dividend by a compound rate of 6% per year for the foreseeable future.

**What is the expected rate of return from an ordinary share?**

- A 6.07%
- B 11.00%
- C 13.00%
- D 9.50%

- 6 Some years ago, Megellan Ltd issued bonds that pay interest on an annual basis at the rate of 8.0%. Interest has just been paid on the bonds, which are due for repayment in exactly two years' time. The bonds will be redeemed at £110 per £100 nominal value. A yield of 10% per year is required by investors for such bonds.

**What is the expected market value for the bonds? (To the nearest £ and ignoring taxation)**

- A £83.00
- B £91.00
- C £105.00
- D £126.00

- 7 Consider the following statements concerning capital market efficiency.

The Efficient Markets Hypothesis (EMH) states that an efficient market is one in which:

- (1) funds are directed towards companies that make most productive use of them.
- (2) transaction costs are kept to a minimum.

**Which one of the following combinations (true/false) concerning the above statements is correct?**

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

- 8 A retailer sells 80,000 units of a particular product each year and demand for the product is even throughout the year. The cost of placing each order for the product is £12, the cost of holding one unit in stock for one year is £6 and the retailer orders in batches of 1,600 units. A buffer stock of 10,000 units is held throughout the year.

**What is the combined annual cost of ordering and holding this particular product?**

- A £5,400
- B £10,200
- C £65,400
- D £70,200

9 Consider the following statements concerning sources of finance.

1. Invoice discounting requires the discounter to invoice the client's customers for goods or services provided.
2. A bank bill offers a bank customer the opportunity to discount the bill of exchange at the bank.
3. Operating leases are rental agreements where the lessor retains responsibility for servicing and maintaining the leased equipment.
4. 'Junk bond' is a term for bonds that have been given a rating by a credit-rating agency that is below investment grade.

**Which two of the above statements are correct?**

- A 1 and 2
- B 1 and 3
- C 2 and 4
- D 3 and 4

10 Columbus plc has 10 million shares in issue and has a market capitalisation of £60 million. The company has recently announced a one-for-four rights issue at a discount of 40% on the current market value.

**What is the theoretical value of the rights attached to each original share?**

- A £0.48
- B £0.60
- C £1.38
- D £1.92

11 A UK business expects to receive euros in five months' time. Assume that the business wishes to hedge against exchange rate risk.

**Which one of the following methods should be employed?**

- A Take out a forward contract to sell euros in five months' time
- B Take out a forward contract to buy euros in five months' time
- C Buy euros now at the prevailing spot rate
- D Take out a call option on euros.

12 Techsat plc pays a constant annual dividend of 40 pence per ordinary share and the ordinary shares of the company have a beta of 1.5. The risk-free rate of return is 6% and the current market rate of return is 10%.

**What is the predicted market value of an ordinary share of the company?**

- A 190.5 pence
- B 266.7 pence
- C 333.3 pence
- D 480.0 pence

**13** Three views concerning the effect of loan capital on the capital structure of a business are:

1. The traditional view.
2. The Modigliani and Miller (without taxes) view.
3. The Modigliani and Miller (with taxes) view.

According to each view, what will be the effect (rise/fall/stay constant) on the cost of equity when the level of loan capital increases?

	Traditional view	Modigliani and Miller (without taxes) view	Modigliani and Miller (with taxes) view
<b>A</b>	Rise	Rise	Rise
<b>B</b>	Fall	Stay constant	Rise
<b>C</b>	Rise	Stay constant	Fall
<b>D</b>	Fall	Fall	Fall

**14** Musat plc holds the following OTC options at their expiry date:

1. A put option on dollars at an exchange rate of £1 = \$1.92. The exchange rate is £1 = \$1.95 at the expiry date of the option.
2. A call option on 5,000 ordinary shares in Spitzer plc at an exercise price of 575p. The share price is 562p at the expiry date of the option.

Which of the above options should be exercised and which should be allowed to lapse at their expiry date?

	Put option	Call option
<b>A</b>	Exercise	Exercise
<b>B</b>	Lapse	Exercise
<b>C</b>	Exercise	Lapse
<b>D</b>	Lapse	Lapse

**15** Consider the following statements concerning options.

1. An out-of-the-money call option has an intrinsic value of zero.
2. An American-style option can be exercised at any time up to, and including, the expiry date.

Which one of the following combinations (true/false) relating to the above statements is correct?

	Statement	
	1	2
<b>A</b>	True	True
<b>B</b>	True	False
<b>C</b>	False	True
<b>D</b>	False	False

- 16** A business uses the hedging methods outlined below to protect itself against the particular types of foreign exchange risk against which they are matched.

Hedging method	Type of risk
Forward exchange contracts	Transaction risk
Matching receipts and payments	Economic risk
Buying or selling in domestic currency	Translation risk

**Which one of the following combinations best describes the suitability of the three hedging methods for their intended purpose?**

	Suitability of hedging method for type of risk identified		
	Forward exchange contracts	Matching receipts and payments	Buying or selling in domestic currency
<b>A</b>	Yes	No	Yes
<b>B</b>	Yes	No	No
<b>C</b>	No	Yes	Yes
<b>D</b>	No	No	Yes

- 17** For large listed companies, a remuneration committee should be formed that:

1. is made up of at least three members.
2. comprises at least one-third independent non-executive directors.

**Which one of the following combinations (true/false) relating to the above statements correctly reflect the recommendations of the Combined Code?**

	Statement	
	1	2
<b>A</b>	True	True
<b>B</b>	True	False
<b>C</b>	False	True
<b>D</b>	False	False

- 18** Compton plc has ordinary shares with an alpha value of 1.6%. The actual return on the shares is 15.2%. The risk-free rate of return is 4.0% and the expected market return is 12.0%.

**What is the beta value of the ordinary shares?**

- A** 0.6
- B** 0.8
- C** 1.2
- D** 1.6

**19** Consider the following statements concerning futures contracts.

1. Futures contracts are tailor-made for the needs of the client
2. Futures contracts can be traded on a futures exchange
3. A short position on a futures contract can be closed by buying an equal number of the contracts for the same settlement date.
4. A long position on a futures contract can be closed by buying an equal number of contracts for the same settlement date.

**Which two of the above statements are correct?**

- A** 1 and 3
- B** 1 and 4
- C** 2 and 3
- D** 2 and 4

**20** Which one of the following statements concerning the Combined Code is correct?

- A** Company law requires listed companies to comply with the Combined Code.
- B** The Stock Exchange requires listed companies to comply with the Combined Code or to explain to shareholders why they have failed to comply.
- C** The Financial Services Authority requires all companies to comply with the Combined Code.
- D** The International Accounting Standards Board requires all companies to comply with the Combined Code, or to explain to shareholders why they have failed to comply.

**(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** Morelos Ltd is a manufacturer of high-quality tools for those working in the engineering industry. The mission statement of the company declares that it is dedicated to maximising the wealth of its shareholders and, since it was formed in 1992, the company has grown rapidly. Recently, the company has developed a new type of drill and the directors of the company are now considering whether this drill should be manufactured and sold. The following information is available to help evaluate the viability of the new product:
- (i) Costs incurred in designing and developing the new drill, which have all been paid, were £220,000. These costs are to be written off in equal instalments against profits generated over the new product's expected life of four years.
  - (ii) Sales are expected to be 18,000 drills per year over the next four years. The selling price of each drill will be £40 in the first three years and £30 in the final year.
  - (iii) Variable costs are estimated to be £15 for each drill.
  - (iv) Additional fixed costs are expected to be £295,000 per year. This includes a charge for depreciation of equipment used in the manufacture of the drills of £80,000 per year.
  - (v) Equipment that originally cost £800,000 and which has a written down value of £450,000 will be used to produce the new product. If the new drill is not manufactured, the equipment will be sold immediately for £420,000 as it cannot be used for any other purpose. If, however, the drill is manufactured, the equipment will be sold at the end of four years for £86,000.
  - (vi) Additional working capital of £120,000 will be required immediately to support the manufacture of the new product. This will be released at the end of the life of the new product.

The company uses the net present value method and the discounted payback method to evaluate new investment opportunities. When applying these methods, the company uses a cost of capital of 10% and adopts a maximum discounted payback of two years.

Ignore taxation.

**Required:**

- (a) Calculate the incremental cash flows arising from a decision to produce the new drill.** (10 marks)
  - (b) Calculate:**
    - (i) the net present value (NPV), and**
    - (ii) the discounted payback period of the new drill.** (4 marks)
  - (c) Evaluate the investment criteria adopted by the business and state, with reasons, whether the new drill should be produced.** (6 marks)
- (20 marks)**

- 2 Orsted plc is a major supplier of glass to the building industry. In recent years it has enjoyed high rates of growth and, to maintain its growth momentum, the company is seeking to acquire other glass suppliers. Coriolis plc is a major supplier of glass to the automotive industry and the chief executives of Orsted plc and Coriolis plc have been in discussion with a view to the acquisition of Coriolis plc by Orsted plc. Following these discussions, it was agreed that the board of directors of Coriolis would recommend acceptance of the bid providing that a premium of 20% above the current market price of the ordinary shares is paid.

Financial information relating to each company is as follows.

**Profit and loss account extracts for the year ended 31 May 2006**

	<b>Orsted plc</b>	<b>Coriolis plc</b>
	<b>£m</b>	<b>£m</b>
Sales revenue	830.2	490.6
	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
Net profit before taxation	380.0	142.5
Corporation tax	76.0	28.5
	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
Net profit after taxation	304.0	114.0
	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
Price/earnings ratio	30.0	10.0
Ordinary shares in issue (millions)	400.0	120.0

The finance director of Orsted plc has estimated that the proposed acquisition will result in the following savings:

	<b>£m</b>
IT costs	22.4
Distribution costs	17.6
	<hr style="width: 100%;"/>
Total savings before taxation	40.0
Taxation	8.0
	<hr style="width: 100%;"/>
Total savings after taxation	32.0
	<hr style="width: 100%;"/>

The finance director has also argued that not all shareholders in Orsted plc may be convinced by the commercial logic of the proposed acquisition and, as a result, the P/E ratio of Orsted plc will probably fall by 30% following a successful takeover.

Orsted plc wishes to acquire all the shares of Coriolis plc and intends to pay for them by a share-for-share exchange.

**Required:**

- (a) Assuming that the share price mentioned by the chief executive of Coriolis plc is acceptable to the shareholders:
- (i) calculate the price per share that Orsted plc will have to pay to acquire the shares of Coriolis plc;
  - (ii) calculate the rate of exchange for the shares of the two companies and the number of shares that must be issued by Orsted plc to acquire the shares of Coriolis plc;
  - (iii) calculate the market value per share of Orsted plc following a successful takeover, assuming the savings indicated are achieved and the P/E ratio of Orsted plc falls by 30%. (12 marks)
- (b) Assuming that the share price mentioned by the chief executive of Coriolis plc is unacceptable to the shareholders of Coriolis plc, identify and discuss four defensive tactics the directors of Coriolis plc might employ to resist an unwelcome bid. (8 marks)

**(20 marks)**

**3** Managing customer credit is an important aspect of managing a business.

**Required:**

**(a) Identify and discuss the main elements of credit policy.** (6 marks)

**(b) Explain why managing customer credit may be a particular problem for small businesses.** (4 marks)

**(c) Identify and discuss the main sources of information that a business may use to help assess the creditworthiness of new customers.** (10 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 Gurwin plc is an established high street retailer. Over the years, it has developed considerable expertise in developing software solutions for retail problems and recently decided to exploit this expertise by offering software solutions to other high street retailers. This resulted in software sales that far exceeded expectations. The company's success in this area provoked a strategic review, which, in turn, led to a decision to sell off the retail outlets and to re-focus the company towards providing software solutions. The sell-off is due to take place in one month's time.

The company employs net present value analysis for the appraisal of all its investment projects and the board of directors believes that the proposed change of direction requires a review of the company's weighted average cost of capital, which is used as the appropriate discount rate. The following extracts have been taken from the balance sheet of the company for the year that has just ended:

	£m
Equity	
£1 ordinary shares	500
Retained profits	2,000
	2,500
Loan capital	
Debentures	1,000
Term loan	300
	1,300

The existing capital structure will remain the preferred capital structure of the business following its change of strategic direction.

The ordinary shares have a current market value of £4.80 per share and the equity beta is 1.1. Returns on the market are 6.8% and the risk-free rate is 3.5%. The debentures are irredeemable and currently trading at £120 per £100 nominal value. It can be assumed that all of the company's loan capital is risk free.

At present, only one listed company, Amos plc, specialises in providing software solutions to the retail trade. The company is financed 60% by equity and 40% by loan capital, based on market values, and it has an equity beta of 1.8.

The effective corporation tax rate is 20%.

**Required:**

- (a) Explain why Gurwin plc may wish to review its cost of capital. (2 marks)
  - (b) Using Modigliani and Miller, calculate the weighted average cost of capital for Gurwin plc that should be used as the appropriate discount rate when evaluating new investment proposals. (10 marks)
  - (c) Identify and discuss any weaknesses in the approach used in (b) above to derive the weighted average cost of capital of Gurwin plc. (8 marks)
- (20 marks)**

5 The chairman of the board of directors has a critical role to play in the effective functioning of the board.

- (a) Explain the role and responsibilities of the chairman of the board of directors. (12 marks)
- (b) What are the benefits of separating the roles of chairman and chief executive and what are the problems and issues that may arise where this separation exists? (8 marks)

**(20 marks)**

**6** Herschel plc was recently formed to acquire an operating division of a large plastics manufacturer. The operating division, which specialises in the production of high-quality windows, doors and conservatories, was acquired by the existing management team. The funds necessary to acquire the division were provided largely by a venture capitalist and, as part of the funding agreement, the board of directors of the new company is required to implement a risk-based management system. Once this is in place, a newly-formed audit committee will have responsibility for reviewing the system.

**Required:**

**Write a report to the board of directors of Herschel plc which sets out:**

- (a) the main elements of an effective system for the management of risk;** (11 marks)
- (b) the steps that should be taken to ensure that risk-management becomes fully embedded within the company** (5 marks)
- (c) the main issues that the newly-formed audit committee should consider when reviewing the risk management system.** (4 marks)

**(20 marks)**

**End of Question Paper**