

INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

21 April 2011 (am)

Subject CT2 — Finance and Financial Reporting Core Technical

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
3. *Mark allocations are shown in brackets.*
4. *Attempt all 20 questions. From question 11 onwards begin your answer to each question on a separate sheet.*
5. *Candidates should show calculations where this is appropriate.*

Graph paper is NOT required for this paper.

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.

<p><i>In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.</i></p>
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For questions 1–10 indicate in your answer book which one of the answers A, B, C or D is correct.

- 1** Which of the following best describes the concerns arising from the agency relationship in companies?
- A The directors may act in their own interests at the expense of those of the shareholders.
 - B The shareholders may have different interests from one another.
 - C The directors may be unwilling to consider the company's duties to society.
 - D The directors may put the interests of lenders before those of the shareholders.
- [2]
- 2** Which of the following best describes the potential exposure of a member of a limited liability partnership (LLP)?
- A Members of an LLP are not exposed to any risk of loss.
 - B The LLP itself could fail, costing each member his or her stake in the business.
 - C Each member is personally liable for his or her share of the LLP's liabilities.
 - D Each member is jointly and severally liable for the liabilities of the LLP.
- [2]
- 3** A company has 10 million ordinary shares in issue with a market price of £2.00 per share. The company is about to make a rights issue that will give the right to buy one new share for £1.60 for every five shares previously held. What is the theoretical ex-rights price of the company's shares?
- A £1.60
 - B £1.80
 - C £1.93
 - D £2.00
- [2]
- 4** Which of the following best explains why a bonus issue of shares may imply confidence on the part of the directors?
- A The bonus issue is only possible because of past success.
 - B Reducing the market price per share may have an impact on the company's ability to issue new shares in the future.
 - C Shareholders have a right to the same dividend per share on an increased number of shares.
 - D The bonus issue will increase the gearing ratio.
- [2]

- 5** Which of the following situations is best suited to the purchase of a currency option?
- A The buyer wishes to gain from any change in future exchange rates.
 - B The buyer wishes to eliminate all future uncertainty.
 - C The buyer wishes to determine the “worst possible” outcome.
 - D The buyer wishes to determine the “best possible” outcome.
- [2]
- 6** Which of the following statements best describes the role of accounting standards in the preparation of financial statements for publication?
- A Accounting standards have little impact on the process of preparing financial statements.
 - B Accounting standards provide companies with a broad indication of what the financial statements should contain.
 - C Accounting standards reduce variations between companies in the way they prepare accounts.
 - D Accounting standards eliminate all scope for disagreement over accounting.
- [2]
- 7** Which of the following accounting concepts provides justification for the fact that book values of certain assets may not always reflect their true value?
- A business entity
 - B going concern
 - C money measurement
 - D realisation
- [2]
- 8** An item of equipment cost £5,000 and has an estimated useful life of ten years, at which time it is anticipated that it will be scrapped and sold for £200. The machine is now three years old. What is this machine’s book value if the company uses the straight-line method of depreciation?
- A £3,360
 - B £3,440
 - C £3,500
 - D £3,560
- [2]

- 9** Which of the following best describes the parent company / subsidiary company relationship?
- A A subsidiary company is wholly owned by its parent.
 - B A subsidiary company is largely owned by its parent.
 - C A subsidiary company is influenced by its parent.
 - D A subsidiary company is controlled by its parent.
- [2]
- 10** Over a particular period, a company's profit before tax was £700,000. Share capital is £400,000 and retained earnings are £470,000. Long term liabilities are £600,000. Interest on long term liabilities was £48,000.
- What was the company's return on capital employed for the period described above?
- A 48%
 - B 51%
 - C 75%
 - D 86%
- [2]
- 11** Comment on the suggestion that the interests of shareholders and lenders can conflict.
- [5]
- 12** Simon established an actuarial practice several years ago. The business has been successful. One of Simon's longest-serving actuaries has started to look for alternative employment and Simon is considering offering her a partnership in the practice.
- Discuss the implications for Simon of making this employee a partner.
- [5]
- 13** Explain why preference shares are generally accounted for as debt rather than equity.
- [5]
- 14** Explain why tax legislation does not permit depreciation as an expense for tax purposes but grants a capital allowance instead.
- [5]
- 15** Comment on the assertion that the internal rate of return method has no advantages over the net present value method of evaluating investment opportunities and has several disadvantages.
- [5]

- 16** (a) Identify two accounting concepts.
(b) Explain how each assists in the preparation of financial statements. [5]
- 17** The external auditor's report for company Z Ltd consists of a disclaimer of opinion.
(a) Explain what is meant by such an audit report.
(b) Describe the circumstances for which it might be appropriate. [5]
- 18** The directors of a quoted company have the opportunity to invest in a profitable project, but will be unable to raise sufficient finance in the required timeframe unless they substantially reduce the next dividend payment compared with that paid in previous years.

Discuss the implications of reducing the dividend under these circumstances. [5]

- 19** Harris is a manufacturing company that has recently developed a new product that is likely to be a major commercial success. Harris must raise £8m in order to put this product into production. The company's most recent statement of financial position is as follows:

Harris
Statement of Financial Position as at 31 March 2011

	£m
Assets	
Property, plant and equipment	22
Current assets	3
	<u>25</u>
Equity	
Share capital	8
Retained earnings	5
	<u>13</u>
Liabilities	
Non-current liabilities	11
Current liabilities	1
	<u>25</u>

Property, plant and equipment comprises £10m of land and buildings and £12m of manufacturing equipment. All of Harris' non-current assets are valued at cost less depreciation.

Harris had its land and buildings revalued as at the year end. The valuer's report indicated that the buildings were of a specialised nature, but that the property could nevertheless be marketed for approximately £17m.

Non-current liabilities comprise a bank loan that has a covenant in place that forbids Harris from taking out further borrowings that would increase the company's gearing ratio (measured as debt over debt plus equity) to more than 50%.

- (i) Explain why a bank might be interested in a borrower's gearing ratio. [4]
- (ii) Calculate Harris' gearing ratio under each of the following conditions:
 - using the unadjusted figures according to the most recent statement of financial position
 - assuming that Harris had borrowed the £8m required to fund the expansion
 - assuming that Harris had borrowed the £8m required to fund the expansion and that the company had revalued its land and buildings in accordance with the valuer's report [6]
- (iii) Explain why the directors of limited companies are likely to take great care when deciding whether to revalue property. [5]
- (iv) Explain why the shareholders might prefer to have the property revalued rather than shown at cost less depreciation. [5]

[Total 20]

- 20** Porter is a quoted company which operates a fleet of trucks and provides a transport network for a number of very large businesses, such as food manufacturers who need to make bulk deliveries to supermarket chains.

The company is considering investing in a risky new project. Many of the goods transported by the company arrive by ship and most major ports have rail links which make it possible for shipping containers to be loaded directly on to trains. Porter is considering creating an “inland port”, which will involve buying a large piece of land in the centre of the country, adjacent to a major railway line which can be accessed by rail from several ports. Goods arriving by ship for Porter’s customers will be taken by rail to this inland port facility where they will be offloaded from trains and on to trucks. The trucks will then take the goods directly to their final destination.

The cost of establishing this facility will be substantial, but it will offer a faster and more efficient service. Porter will save huge amounts of money and fuel. The use of this method will also reduce emissions and so products transported in this way will have a much lower carbon footprint.

There are some significant risks associated with this proposal. It will be difficult to recruit and retain sufficient drivers to work from the new location. The company will be exposed to the health and safety risks that are presently borne by the port operators. The IT systems may not cope with the volumes of time-critical data that will have to be processed in order to keep containers moving efficiently. Any disruption to either the road or rail networks, perhaps due to bad weather, will have an impact on performance.

Porter will have to borrow heavily in order to finance the investment. If the inland port is not a commercial success then Porter may not survive as an independent entity. The directors have estimated that there is a 25% chance of commercial failure of the project.

The project has a beta of 0.55. The risk free rate is 4% p.a. and the equity risk premium is 9% p.a. The project offers an estimated return of 26% p.a.

- (i) Calculate the required rate of return for the project. [2]
- (ii) Explain how an apparently risky project can have a relatively low required rate of return. [7]
- (iii) Discuss the factors that will affect Porter’s share price on the announcement of its intention to invest in the project. [6]
- (iv) Discuss the factors that may deter the directors of Porter from investing in the project, even if they are confident that the shareholders would wish them to proceed. [5]

[Total 20]

END OF PAPER