

# INSTITUTE AND FACULTY OF ACTUARIES

## EXAMINATION

18 April 2013 (pm)

### 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 possibility of an agency relationship between company directors and debenture holders?
- A There is no agency relationship because the debenture holders are protected by the terms of their debenture.
  - B The directors could indulge in risky behaviour that threatens the value of the debenture holders' stake in the company.
  - C The debenture holders do not appoint the directors and so the directors are not the debenture holders' agents.
  - D The debenture holders bear exactly the same agency risks as the shareholders.
- [2]

- 2** Which of the following statements is most likely to be true of an investment trust?
- A The trust's shares are likely to be at a discount to the value of the trust's underlying assets because many trusts' investment strategies are misunderstood.
  - B The trust's shares are likely to equal the value of the underlying assets because the capital markets will not misprice the assets held by the trust.
  - C The trust's shares are likely to be at a premium to the value of the trust's underlying assets because the trust managers are skilled in managing investments.
  - D The trust's shares are likely to be at a discount to the value of the trust's underlying assets because of the net present value of the trust's management charges.
- [2]

- 3** Which of the following best explains the logic behind attaching a warrant to a bond issue?
- A Issuing warrants will enable the company to repay the bonds from the associated share issue.
  - B The lender may be prepared to accept a lower rate of interest in return for the capital appreciation offered by the warrant.
  - C Warrants motivate the shareholders by offering the opportunity to spread the risks associated with investment.
  - D In an ideal world, the warrants will expire before they can be exercised.
- [2]

- 4** Which of the following best describes the cost of providing finance from retained earnings?
- A There is no cost associated with retained earnings.
  - B Retained earnings are less expensive than equity share capital.
  - C Retained earnings are equally expensive as equity share capital.
  - D Retained earnings are more expensive than equity share capital.
- [2]
- 5** Which of the following justifies the use of the payback method for evaluating capital investment projects?
- A Management has to predict cash flows from the project in order to determine payback.
  - B Projects with short payback are always more profitable.
  - C Projects with short payback always have higher net present values.
  - D Projects with short payback are always more predictable.
- [2]
- 6** A company is preparing its financial statements and must decide on an accounting policy for an unusual situation that is not covered by accounting standards. Which of the following best explains how the company should proceed?
- A The company can use any policy that it wishes.
  - B The company should use the policy that ensures the smallest profit.
  - C The company should use the policy that yields the strongest statement of financial position.
  - D The company should apply the logic in any accounting standard that deals with broadly comparable circumstances, even though that standard is not directly applicable.
- [2]
- 7** Which of the following best summarises the dual aspect concept?
- A There are frequently two or more ways to approach any accounting judgement.
  - B Every transaction affects two balances and both must be adjusted in the bookkeeping records.
  - C There ought to be independent verification of matters of judgement.
  - D The bookkeeping records ought to be backed up regularly and the backup copy kept securely.
- [2]

- 8** Which of the following best describes the process of preparing consolidated financial statements for a group comprising a parent and an 80% subsidiary?
- A Cancel all relationships between the group members and add the figures for assets and liabilities together.
  - B Cancel all relationships between the group members and add 80% of the subsidiary's assets and liabilities to the parent's.
  - C Cancel 80% of all relationships between the group members and add the remaining figures for assets and liabilities together.
  - D Cancel 20% of all relationships between the group members and add the remaining figures for assets and liabilities together.
- [2]
- 9** Which of the following best explains why companies must publish their diluted earnings per share?
- A Diluted earnings per share takes account of the board's intentions to issue fresh equity.
  - B Undiluted earnings per share is irrelevant for decision making purposes.
  - C The undiluted earnings per share figure can be misleading when an equity issue has occurred during the year.
  - D Existing equity holdings can be diluted by the right to purchase fresh equity at a preferential rate.
- [2]
- 10** A manufacturing company has consistently used historical cost accounting since its incorporation. Which of the following best describes the implications of basing the return on capital employed ratio (return) on historical cost figures?
- A Both return and capital employed are likely to be understated.
  - B Both return and capital employed are likely to be overstated.
  - C Return is likely to be understated and capital employed is likely to be overstated.
  - D Return is likely to be overstated and capital employed is likely to be understated.
- [2]
- 11** Explain whether a loss-making company should allow for the effects of tax when deciding whether to raise fresh finance through debt or equity. [5]

- 12** Sarah recently inherited a substantial sum of money. Her friend Tom is a successful businessman who owns a small factory. Tom is a sole trader. He has offered Sarah the opportunity to become a sleeping partner in his business. She will invest £200,000 of her inheritance in return for a partnership share of 30% of all future profits. She will not take any part in the running of the business. The business is profitable and is struggling to keep up with demand, so the expansion will probably be successful.

Describe the risks that Sarah will be taking on if she enters into this arrangement with Tom. [5]

- 13** A company's directors are considering issuing redeemable preference shares as an alternative to borrowing. They believe that the company is too close to its borrowing capacity and so equity is preferable to debt.

Outline the implications for the company of issuing redeemable preference shares in these circumstances. [5]

- 14** Explain why finance leases have to be accounted for on the basis that the asset and an associated liability must appear in the lessee's statement of financial position, even though the lessee does not own the asset. [5]

- 15** A company's treasurer has negotiated an interest rate swap to exchange cash flows on the company's fixed interest loans with the counterparty's cash flows on a floating rate loan.

Discuss the risks to the company associated with the swap arrangement. [5]

- 16** An energy generation company is considering building a wind farm instead of a more traditional power station. This would be the company's first investment in this technology.

Discuss how simulation could be useful in the evaluation of the investment in the wind farm. [5]

- 17** The directors of a quoted company are discussing a proposal from an investment bank that would enable the company to exploit a legal loophole, allowing it to borrow funds without the commitment affecting the company's gearing ratio.

Discuss the implications of this proposal for the company's shareholders. [5]

- 18** A small company has a policy of obtaining the latest annual report from each of its customers and calculating liquidity ratios for credit control purposes.

Discuss the usefulness of a typical company's annual report for this purpose. [5]

- 19** You have been asked to assist Holder, a manufacturing company, to prepare its annual accounts. The following information has been obtained from the company's bookkeeping records:

**Balances as at 31 March 2013**

	<i>£000</i>
Administrative salaries	3,600
Advertising	66,000
Bank overdraft	1,650
Buildings – depreciation	45,000
Buildings – valuation	450,000
Cost of inventory consumed	435,000
Delivery vehicle running costs	51,000
Delivery vehicles – cost	375,000
Delivery vehicles – depreciation	255,000
Dividend paid	150,000
Factory running costs	105,000
Interest	38,400
Inventory at 31 March 2013	36,000
Land – valuation	840,000
Loan (repayable 2018)	300,000
Machinery – cost	186,000
Machinery – depreciation	84,000
Manufacturing wages	195,000
Retained earnings	262,350
Revaluation reserve	240,000
Revenue	1,686,000
Sales salaries	84,000
Share capital	210,000
Trade payables	57,000
Trade receivables	126,000

The figures shown above do not include the following:

1. A revaluation exercise was conducted on 1 April 2012. Land was revalued at £1,000,000,000 and buildings at £500,000,000.
2. Depreciation has still to be charged as follows:
  - Buildings – 2% of cost or valuation
  - Delivery vehicles – 25% reducing balance
  - Machinery – 20% of cost

Prepare:

- (a) an income statement
- (b) a statement of changes in equity, and
- (c) a statement of financial position

for the year ended 31 March 2013.

These statements should be in a form suitable for publication insofar as it is possible from the information provided.

[20]

**20** Partan is a quoted company. The directors have asked for a report on the company's cost of capital. The following information has been provided:

- The market capitalisation of the company's equity is £600 million.
- The company has debentures with a face value of £250 million. Their market value is £220 million.
- The corporation tax rate is 23%.
- The risk-free rate of interest is 4% per annum.
- The ungeared beta on Partan's equity is 1.3.
- The debentures have a coupon rate of 5% and are redeemable at par in five years' time.
- The market rate of return is 9% p.a.

The directors have already calculated Partan's weighted average cost of capital (WACC), but they wish you to prepare a calculation in order to confirm their figures. They are concerned that the WACC is higher than they think is justified and they wish to discuss some proposals for reducing the figure because the directors plan to raise further finance in order to fund expansion, but they are unwilling to do so if the cost of capital is overstated.

- (i) Determine Partan's cost of equity using the company's geared beta. [4]
- (ii) Determine Partan's approximate cost of debt. [4]
- (iii) Calculate Partan's WACC. [2]

The marketing director has suggested that the company could dramatically reduce the cost of capital if the board promotes the company in the same way that it promotes its products. The directors should identify the market's needs and explain to those who provide finance just how well suited Partan is to meeting those needs.

- (iv) Discuss the logic of the marketing director's proposal for reducing the WACC. [10]
- [Total 20]

**END OF PAPER**