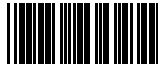


# INSTITUTE AND FACULTY OF ACTUARIES



## EXAMINATION

9 October 2015 (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. Answers to questions 1–10 should be indicated on the Multiple Choice Answer Sheet included in your booklet. From question 11 onwards begin your answer to each question on a new page.*
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.*

*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.*

- 1** Which of the following best describes the par value of an equity share?
- A The market value of a quoted company's shares.
  - B The price at which the share could be sold in an arm's length transaction.
  - C The value attached to the share for bookkeeping purposes.
  - D The value that would be attributed to the share for tax purposes in the event that it is sold.
- [2]
- 2** Which of the following best describes the relationships between the interests of major groups of stakeholders in a limited company?
- A The directors will ensure that all stakeholders' interests are satisfied.
  - B The stakeholders' interests will often conflict and their relationships will be defined entirely by formal, written contracts.
  - C The stakeholders' interests will often conflict and their relationships will be defined by a combination of contracts and implicit agreements.
  - D The stakeholders will work together for their mutual benefit.
- [2]
- 3** An investment opportunity involves the purchase of a machine for \$40,000. The machine will have a useful life of five years, after which time it will be scrapped. The machine will increase reported profit by \$11,000 every year for five years. The company uses straight line depreciation. The required rate of return is 8% per annum. The investment will be funded by a loan for five years with an interest rate of 6% per annum.
- Calculate the net present value of this investment.
- A \$3,923
  - B \$6,332
  - C \$35,867
  - D \$40,028
- [2]

- 4** A company has evaluated a large and complex investment proposal using Monte Carlo simulation. The simulation suggests that there is a 10% probability of a negative net present value, a 60% probability of a small positive net present value and a 30% probability of a substantial positive net present value.

How should these results be interpreted?

- A The actual outcome will be within the upper and lower limits arising from the simulation.
- B The average outcome calculated from these figures shows how the project is likely to turn out.
- C The project should proceed because there is only a 10% probability of a loss.
- D The range and frequency of the expected outcomes provide a broad indication of risk.

[2]

- 5** What is the most logical interpretation of a very small positive net present value determined for an investment proposal?

- A The internal rate of return should be calculated in order to determine whether that provides further information.
- B The investment should only be considered if it also has a very short payback.
- C The project offers slightly more than the required rate of return and so it is worth considering.
- D The project should be disregarded because the small net present value means that it is not worth pursuing.

[2]

- 6** Why are preference shares normally treated as debt when calculating the gearing ratio?

- A Preference shares affect the volatility suffered by ordinary shareholders.
- B Preference shares can sometimes be classified as debt in the financial statements.
- C Preference dividends can be suspended.
- D Preference shares can be redeemable.

[2]

- 7** Which of the following best explains why investment analysts often use earnings before interest, tax, depreciation and amortisation (EBITDA) as a performance measure?
- A EBITDA is a more objective measure than profit for the year.
  - B EBITDA is a more realistic measure of overall performance than profit for the year.
  - C EBITDA is likely to be greater than profit for the year.
  - D EBITDA is likely to be smaller than profit for the year.
- [2]
- 8** A company's directors are considering manipulating their current ratio by delaying the payment of trade payables, that would normally occur before the year end, until some time after the year end. Which of the following statements is correct?
- A If the company has a bank overdraft and a current ratio of more than 1:1 then the current ratio will be increased by this delay.
  - B If the company has a bank overdraft and a current ratio of more than 1:1 then the current ratio will be reduced by this delay.
  - C If the company has a positive bank balance and a current ratio of less than 1:1 then the current ratio will be increased by this delay.
  - D If the company has a positive bank balance and a current ratio of more than 1:1 then the current ratio will not be increased by this delay.
- [2]
- 9** Which of the following best describes the role of International Financial Reporting Standards (IFRS) in the situations in which they are applicable?
- A IFRS eliminate inconsistency in accounting choices.
  - B IFRS ensure consistent disclosure across all companies.
  - C IFRS prevent misleading financial reporting.
  - D IFRS provide guidance on the appropriate treatment of specific matters.
- [2]

- 10** Which of the following best explains what it means when the external auditor issues a disclaimer of opinion?
- A The auditor disagrees with the figures prepared by the directors.
  - B The auditor is satisfied that the financial statements give a true and fair view.
  - C The auditor is unable to express an opinion on the truth and fairness of the financial statements.
  - D The auditor wishes to withdraw an opinion that has previously been reported.
- [2]
- 11** Describe the relationship between principals and agents according to agency theory.
- [5]
- 12** Modigliani and Miller argue that gearing is irrelevant, but this argument depends in part on the fact that investors can borrow in order to invest in shares issued by companies that are under geared.
- Discuss the extent to which personal gearing can be a realistic substitute for corporate gearing.
- [5]
- 13** Discuss the potential advantages and disadvantages of using a finance lease to acquire an asset rather than borrowing the cost of the asset in order to purchase it outright.
- [5]
- 14** Discuss the difficulties faced by underwriters in setting an appropriate fee in respect of an offer for sale at a fixed price.
- [5]
- 15** Banks typically receive deposits on which variable rates of interest are offered. Explain why a bank may use interest rate swaps in managing the cost of interest.
- [5]
- 16** Describe ways in which governments can use taxation to incentivise pensions saving.
- [5]
- 17** Describe one technique that company directors could use to manipulate their company's reported earnings (a practice that is sometimes referred to as "creative accounting").
- [5]
- 18** Discuss the proposition that none of a company's profitability ratios matter provided the return on capital employed ratio is satisfactory.
- [5]

- 19** Global plc is a quoted company that manufactures petrochemicals. The company has recently patented a new process that will enable it to extract oil from oilwells that had previously been regarded as uneconomic.

Global plc is confident that the process is fully protected by patent law, so that nobody else can use it without permission. The directors have demonstrated the process to business and oil industry journalists and to television news stations and it has generated a great deal of publicity. Global plc's directors were disappointed that there was very little evidence of an increase in the share price in response to this positive publicity. The process had been a closely guarded secret before the announcement, and nobody outside the company knew that a major project was under development.

- (i) Discuss the directors' belief that Global's share price should have increased upon the announcement of the new process. [8]

The directors are considering how best to exploit this new technology. One possibility would be to buy oil exploration rights and to hire the necessary equipment and expert staff to explore for oil. Global plc could then use the process to extract oil from any wells that it drills. The other possibility would be to sell the right to use the process to oil companies under licence. These rights could be valuable to oil companies and so Global plc could charge a great deal for them.

Global plc's directors have estimated potential cash flows from both exploring for oil and for selling licences. They will compare the two in terms of their net present values. With that in mind, they have obtained the following information concerning beta coefficients:

- Global plc's own beta coefficient is 1.3
- an oil exploration company has a beta of 0.8
- a product-design company that specialises in environmentally sustainable developments has a beta coefficient of 1.0

- (ii) Evaluate the suitability of each of the beta coefficients identified by Global's directors as a basis for deciding whether to pursue one of the alternatives for exploiting the new process. [12]  
[Total 20]

**20** Maxload Ltd is a manufacturing company. Prepare the following financial statements for Maxload Ltd for the year ended 31 August 2015:

(i)	Statement of Profit or Loss	[10]
(ii)	Statement of Financial Position	[8]
(iii)	Statement of Changes in Equity	[2]
		[Total 20]

**Trial Balance as at 31 August 2015**

	£000	£000
Administrative staff salaries	2,680	
Cash at Bank	4,580	
Directors' salaries	4,200	
Dividend paid	15,000	
External audit fee	3,620	
Loan interest	4,000	
Long term loan		45,000
Manufacturing overheads	6,870	
Opening inventory	2,640	
Plant and equipment – cost	90,410	
Plant and equipment – depreciation		48,530
Production staff wages	10,870	
Property – cost	98,000	
Property – depreciation		14,560
Purchases	82,500	
Retained earnings		21,180
Revenue		147,800
Sales staff commission	5,200	
Sales staff salaries	11,850	
Share capital		75,000
Trade payables		2,700
Trade receivables	12,350	
	<u>354,770</u>	<u>354,770</u>

- The closing inventory was £3,770,000.
- Sales staff commission of £720,000 was earned during the year ended 31 August 2015, but not paid until September 2015.
- Depreciation has still to be recorded on the following basis:
  - Property – 2% straight line
  - Plant and equipment – 25% reducing balance
- Directors' bonuses of £2,000,000 have still to be paid.
- A tax expense of £5,600,000 has been estimated for the year ended 31 August 2015.

**END OF PAPER**