INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

14 April 2016 (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 What is the defining characteristic of a Eurodeposit?

A A currency deposited in Europe.
B A currency deposited in the European Union.
C A currency deposited outside its country of origin.
D A deposit denominated in a European currency.

[2]

2 Which of the following describes an over the counter security?

A A security that is created by a recognised exchange.
B A security that is issued by a retail bank.
C A standardised instrument that is traded on the markets.
D A tailored instrument whose terms are agreed between the counterparties.

[2]

3 Why might an overdraft be the cheapest way to fund working capital requirements?

A Banks can call in overdrafts without notice.
B Banks offering overdraft facilities are in competition with one another.
C Overdrafts attract a relatively low rate of interest.
D The entity's funding needs are fluctuating.

[2]

4 Why might a share buyback increase a company's share price?

A A share buyback is a sign of confidence on the part of the board.
B Buybacks do not involve any transaction costs.
C The buyback returns funds that were not generating an acceptable return.
D There are no taxes payable on buybacks.

[2]

5 An investment project is to be evaluated on the basis of a real rate of return. What does that mean for the evaluation of the project?

A Inflation should be ignored in predicting cash flows.
B Inflation should be included in the predicted cash flows.
C It is less likely that the project will be selected.
D It is more likely that the project will be selected.

[2]

6 A company's share price has a beta of close to zero. How should that be interpreted?

A Beta cannot be zero, so the figure has been calculated incorrectly.
B The company is not sensitive to the factors that affect the market generally.
C The company's shares would make an unattractive investment.
D There is no risk associated with investing in that company.

[2]

7 A company's beta coefficient is 1.6 and it has a 30% gearing ratio. How would beta change if the corporation tax rate increased?

A Any change in beta would depend on the market's reaction.
B Beta would decrease.
C Beta would increase.
D Beta would remain the same.

[2]

8 An oil company has used a probability tree to evaluate the risks and benefits associated with drilling for oil at each of four potential locations. The probability tree shows that drilling on site Y has a positive expected net present value of $100m, which is greater than those for sites W, X or Z. How should this be interpreted?

A Drilling at site Y will definitely generate future net cash inflows of $100m.
B The oil company should definitely drill at site Y.
C The probability tree outcomes should be considered before making a decision.
D The probability tree provides an objective basis for reaching a final decision.

[2]

9 Risk averse individuals often buy lottery tickets despite the fact that the expected value of doing so is negative. What does this reveal?

A These individuals are behaving in an irrational manner.

B The certainty equivalent of a slim chance of winning a major prize exceeds the cost of a lottery ticket.

C The certainty equivalent of a slim chance of winning a major prize is smaller than the cost of a lottery ticket.

D Lottery contestants do not understand basic probability theory.

[2]

10 Which of the following reflects the relationship between a parent and an associate company?

A The parent and the associate are linked through a joint venture.
B The parent and the associate trade with one another.
C The parent can control the associate.
D The parent can influence the management of the associate.

[2]

11 Describe the role of tax in determining whether an individual shareholder would prefer to receive a dividend or a capital gain. [5]

12 Describe the advantages and disadvantages to existing shareholders of funding expansion using convertible loan stock. [5]

13 A family company has grown to the point where it might be considered for a stock market quotation.

Describe the advantages and disadvantages to the present shareholders of seeking a quotation. [5]

14 Suggest possible reasons why acceptable gearing ratios often vary between countries. [5]

15 Many organisations require the evaluation of a project appraisal report to be documented. Explain the purpose of this documentation. [5]

16 A leisure company is considering building and operating a theme park.

Describe the process of conducting a simulation of this investment as part of the evaluation of this project. [5]

17 Describe the importance of the cash flow statement. [5]

18 Explain the relevance of the balance on a company’s revaluation reserve to its shareholders. [5]

19 The directors of Gryffe have been approached by Subb, a potential customer who wishes to seek a substantial trade credit facility. Subb is a small company, but it is a member of the Parrent Group, a major corporation.

Gryffe's accountant has ascertained the following:

- Subb was founded seven years ago. It has grown slowly but steadily ever since.

- Parrent purchased its 40% holding of Subb's equity two years ago. The terms of the agreement reached with Subb's existing shareholders are that Parrent will have the right to appoint a number of directors to Subb's board.

Subb's chief buyer has submitted the latest financial statements of both Subb and the Parrent Group. Subb's financial position appears to be rather weak, but the Parrent Group is large, profitable and liquid. The chief buyer's covering letter indicates that Gryffe should evaluate the application for trade credit on the basis of Parrent's consolidated financial statements. Subb's chief buyer also asks that attention be paid to the external auditor's report in both sets of financial statements because the auditor has issued an unmodified report in both cases.

Gryffe's directors have asked for an explanation as to why Subb can claim to be part of the Parrent Group when Parrent is a minority shareholder.

(i) Describe the factors that would indicate whether Subb is, indeed, a member of the Parrent Group. [5]

(ii) Explain the suitability of the Parrent Group's consolidated financial statements for the purpose of determining whether Gryffe should advance trade credit to Subb. [5]

(iii) Explain the relevance of the external auditor's report to Gryffe in deciding whether to grant trade credit to Subb. [5]

(iv) Recommend, with reasons, safeguards that Gryffe could put in place to manage the security of the receivable due from Subb in the event that it grants Subb's request. [5]

[Total 20]

20 Jute is an actuarial consultancy that has three departments: Pensions, Insurance and Risk.

The following figures have been prepared for the year ended 31 March 2016.

Statements of Profit or Loss
For the year ended 31 March 2016

	Pensions *£000*	*Insurance* *£000*	*Risk* *£000*	*TOTAL* *£000*
Fees	11,000	9,000	3,600	23,600
Salaries	(7,700)	(5,400)	(1,440)	(14,540)
Depreciation – computers	(667)	(467)	(200)	(1,334)
Depreciation – premises	(36)	(36)	(18)	(90)
Other expenses	(104)	(104)	(52)	(260)
Interest	(288)	(288)	(144)	(720)
Profit	2,205	2,705	1,746	6,656

Statements of financial position
As at 31 March 2016

	Pensions *£000*	*Insurance* *£000*	*Risk* *£000*	*TOTAL* *£000*
Non-current assets				
Office	1,800	1,800	900	4,500
Computers	2,000	1,400	600	4,000
	3,800	3,200	1,500	8,500
Current assets				
Unbilled hours	1,467	1,725	480	3,672
Trade receivables	642	675	150	1,467
Bank	250	175	65	490
	2,359	2,575	695	5,629
Total assets	6,159	5,775	2,195	14,129
Equity				
Share capital	800	800	400	2,000
Retained earnings	3,061	2,863	848	6,772
	3,861	3,663	1,248	8,772
Non-current liabilities				
Mortgage on office	1,600	1,600	800	4,000
Current liabilities				
Accrued salaries	642	450	120	1,212
Other creditors	56	62	27	145
	698	512	147	1,357
Total of equity + liabilities	6,159	5,775	2,195	14,129

All staff time is billed to clients. Members of staff update a daily electronic timesheet. Their employment costs for that day are charged to the client or clients for whom they were working that day. Jute's directors invoice clients for the time charged to their accounts as and when they deem appropriate. The invoices are charged at cost plus a markup to cover other expenses and profit.

Staff time is the only expense which is charged directly to contracts. All other expenses are treated as overheads.

The company is based in a large office block which it owns. Pensions and Insurance each occupy 40% of the floor space and Risk occupies 20%. Share capital and long term loans are apportioned to the departments on the basis of these proportions.

Jute's shares are all owned by the company's founders, all of whom are directors. The directors are concerned about the profit statement and statement of financial position for the following reasons:

- Risk's revenue and profit were much smaller than those of the other departments. Jute's directors are concerned that the Risk department could be undermining the profitability of the company as a whole.

- Despite making substantial profits, Jute has very little cash available from which to pay dividends or even to meet short term commitments. The company has not been investing heavily in new fixed assets and has not made any loan repayments.

(i) Compare the profitability of Risk with that of the other departments, explaining whether it is less profitable than the other two, and supporting your answers with relevant ratios. [10]

(ii) Calculate:

(a) the average length of time taken for staff costs to be charged to a client.
(b) the average length of time taken by clients to settle their invoices.
[2]

(iii) Assess why Jute appears to have run into liquidity problems. [4]

(iv) Suggest how Jute's liquidity problems might be overcome. [4]
[Total 20]

END OF PAPER