INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

27 September 2019 (pm)

Subject CB1 – Business Finance
Core Principles

Time allowed: Three hours and fifteen minutes

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 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 statements provides the best explanation for why non-financial factors ought to be considered when evaluating an investment project?

A Non-financial factors can be more easily understood.
B Non-financial factors can give insights into upside risks.
C Non-financial factors are the primary driver of shareholder wealth.
D Only anticipated net cash flows matter.

[2]

2 Which of the following is a valid basis for weighting debt and equity in order to calculate the weighted average cost of capital (WACC)?

A Book value of debt and book value of equity.
B Book value of debt and market value of equity.
C Market value of debt and book value of equity.
D Market value of debt and market value of equity.

[2]

3 The expected outcome of a project has been estimated using two approaches. The first approach was to predict the outcomes based on five sets of assumptions with given probabilities. The second approach was a Monte Carlo simulation that has been run many thousands of times. The results from both approaches are significantly different.

Which of the following statements is correct?

A The investment decision should be based on the more pessimistic of the two predicted outcomes.
B The approach based on five sets of assumptions can be more readily reviewed and checked for reality.
C The Monte Carlo simulation is more sophisticated and is, therefore, more reliable.
D The project should be abandoned because there is no way to predict the outcome with any certainty.

[2]

4 What is the strongest argument in favour of setting a common hurdle rate across a company for all projects?

A All projects in the same industry have the same risk.
B The decision rule is clear and can be applied consistently.
C A common rate will ensure consistency when capital rationing is in effect.
D The hurdle rate is not a material factor in evaluating a project.

[2]

5 You have been asked to determine the internal rate of return (IRR) of a project that has an initial cash outflow, followed by seven years of net cash inflows. The project's net present value was + \$500,000 when determined at 11% and – \$500,000 when determined at 16%.

Which of the following statements concerning the project's IRR is correct?

A The IRR is approximately 13.5%.
B The IRR is exactly 13.5%.
C The IRR is greater than 16%.
D The IRR is less than 11%.

[2]

6 Which of the following best describes the responsibility of the external auditor?

The external auditor:

A expresses an opinion on the fair presentation of the financial statements.
B prepares the financial statements.
C reassures the directors that the financial statements present fairly.
D reassures the shareholders that the company is a sound investment.

[2]

7 A company owns property that cost \$5.0 million and has been depreciated by \$1.5 million. The property has recently been revalued at \$8.1 million. What figure will appear in the revaluation reserve in respect of this asset?

A \$1.6 million
B \$3.1 million
C \$4.6 million
D \$6.6 million

[2]

8 A company makes sales on credit of \$100,000 every month. Trade receivables generally take 50 days to pay. What would be the impact on cash of changing the terms of trade so that receivables were settled after 40 days?

A The bank balance will increase immediately.
B The bank balance will increase over the next 40 days.
C The bank balance will increase over the next 50 days.
D The bank balance will increase within a month.

[2]

9 Why is it generally expensive to grant a cash discount for prompt settlement of trade receivables?

A Credit customers will be unlikely to take up the cash discount.
B Granting a discount will involve significant and complicated bookkeeping entries.
C It is not possible to incorporate the cost of cash discounts into selling prices.
D The discount must be compounded, generally revealing a high annualised cost.

[2]

10 Which of the following statements best distinguishes a budget from a forecast?

A budget:

A has a future orientation.
B involves active planning.
C may involve feedback against actual.
D requires an understanding of the entity.

[2]

11 Discuss the need for formal and transparent procedures to determine the policy for directors' remuneration in a quoted company. [5]

12 The partners who own an actuarial consultancy are considering moving to a larger and more prestigious office, despite the fact that doing so has a negative net present value on the basis of a five-year cash flow projection.

Discuss the possibility that the move might be justified on the basis of strategic fit. [5]

13 Recommend, with reasons, the most appropriate means of mitigating health and safety risks associated with opening a branch office in another country that has, until recently, been politically unstable. [5]

14 Discuss the advantages and disadvantages of showing non-current assets in the statement of financial position at their fair value rather than cost less depreciation. [5]

15 Explain the purpose of integrated reporting as an alternative to traditional financial reporting. [5]

16 Describe the potential conflict between relevance and reliability in the selection of accounting policies. [5]

17 Describe the purpose of the non-controlling interest figure in a consolidated statement of financial position. [5]

18 The directors of an actuarial consultancy are concerned about the high costs incurred for administration, including costs of administrative staff, associated office accommodation costs and other costs such as IT.

Discuss the suitability of zero-based budgeting for managing the consultancy's administrative costs. [5]

19 Roundspar, a manufacturing company, needs a new piece of equipment that will cost \$10m. A potential lender has requested the following asset cover ratios:

$$\frac{\text{Total assets less current liabilities less intangible assets}}{\text{Loan capital plus prior ranking debt}}$$

$$= \frac{\$60\text{m} - 2\text{m} - 11\text{m}}{\$10\text{m} + 12\text{m}}$$

$$= 2.1 \text{ times}$$

and

$$\frac{\text{Total assets less current liabilities less intangible assets}}{\text{Total loan capital}}$$

$$= \frac{\$60\text{m} - 2\text{m} - 11\text{m}}{\$44\text{m}}$$

$$= 1.1 \text{ times}$$

Both ratios take account of the increased assets and additional debt arising from the transaction.

Roundspar currently has a \$12m mortgage loan that is secured against property valued at \$18m.

The new loan will be secured by a floating charge.

(i) Explain why each ratio would be relevant to the potential lender. [6]

(ii) Discuss the advantages and disadvantages to the lender of excluding intangible assets from the asset cover ratio. [8]

(iii) Discuss the potential agency conflicts that might arise between the interests of Roundspar's shareholders and the providers of debt finance. [6]
[Total 20]

20 Tarvale is a major quoted company that manufactures timber products. The company has suffered a major setback during the past few months. The company's largest supplier was unable to meet Tarvale's timber requirements because volcanic activity close to the supplier's forests caused forest fires which severely disrupted transport routes. Tarvale was able to purchase timber from alternative sources, but paid much more than usual because Tarvale receives a substantial discount from its usual supplier.

Most of Tarvale's board members are concerned that the shareholders will blame them for allowing the company to become so heavily dependent on a single supplier. The Production Director disagrees, though, on the basis that the Capital Asset Pricing Model (CAPM) suggests that shareholders diversify, which protects them from unsystematic risks. The volcanic disruption is an unsystematic risk and so the shareholders were protected. In any case, the Production Director had considered the risk of disruption due to the volcano and had concluded that the risk of an eruption in any given year was less than 5%.

Tarvale has a high gearing ratio. The Production Director proposes that the board should determine the company's ungeared beta in order to determine whether the shareholders are earning a satisfactory return on their investment, despite the costs associated with the volcano.

(i) Discuss the Production Director's argument that holding diversified portfolios would have protected Tarvale's shareholders from the volcanic disruption and so the shareholders will not blame the board. [8]

(ii) Discuss the Production Director's proposition that the risk had been evaluated and so the board should not be criticised. [7]

(iii) Discuss the respective relevance of Tarvale's geared and ungeared betas to its shareholders. [5]

[Total 20]

END OF PAPER