INSTITUTE OF ACTUARIAL & QUANTITATIVE STUDIES

Subject: Business finance

Chapter: Unit 4

Category: Practice question

Part A (Interpretation of accounts & Group accounts)

1. **CT2 October 2011 Question 15**
   (a) Explain what is meant by the term "associate company".
   (b) Explain how associates are treated on consolidation.

2. **CT2 October 2011 Question 18 (updated)**
   Describe the process by which a parent will construct a set of consolidated financial statements.

3. **CT2 October 2011 Question 16**
   Discuss the reasons for requiring quoted companies to publish their diluted earnings per share (EPS) in addition to their basic EPS.

4. **CT2 October 2012 Question 19**
   Dayton is a manufacturing company that is planning to expand by acquiring a business that operates in a complementary area. Dayton has identified two potential acquisitions, Echo and Foxton, that both appear to be suitable for consideration. Dayton will acquire only one company.

   The following financial indicators have been gathered in order to assist with the decision:

	Dayton	Echo	Foxton
Revenue	£500m	£250m	£140m
Return on capital employed	18%	14%	11%
Profit margin	26%	22%	33%
Gearing	52%	44%	28%
Price/Earnings ratio	12.3	16.2	14.1

   i. Discuss the impact that the acquisition of each entity would have on Dayton's financial indicators.

   ii. Discuss the suitability of a typical set of published financial statements for the purpose of deciding a price for a controlling interest in a target company.

   A subsequent analysis of the two potential target companies indicates that the purchase of Echo will lead to the recognition of a much larger amount for goodwill on consolidation than the purchase of Foxton.

   Explain the significance of this difference between the goodwill figures.

5. **CT2 September 2013 Question 19 (part)**

Paul has developed and patented a new product. He requires finance in order to put the product into production. A venture capital company has offered to finance Paul on the basis that Paul will incorporate his business as a limited company. The venture capitalist will provide all of the funding necessary to commence the manufacture and sale of the new product in return for 51% of the equity in this new company. The venture capitalist will appoint a board member and Paul will also be a director of the company. Paul will sign a five year employment contract with the company.

Paul's role with the company will be to work on improvements to the original product and to develop new products for sale by the company. In addition to working full-time as an employee, he must patent any new ideas in the company's name.

The company will be independently valued at the end of its first five years. The venture capitalist will then offer Paul the opportunity to buy its 51% holding for that proportion of the independent valuation plus 20%. If Paul does not take that offer then the venture capital company will retain its shareholding and the question of Paul's contract will be reviewed by both sides.

i. Discuss the difficulties associated with the valuation of the company's shares at the end of year five.
ii. Recommend the approach that should be taken to valuing the company at the end of year five.

6. **CT2 September 2013 Question 18**
Alpha is reviewing bids for the construction of a major civil engineering project. One of the shortlisted bidders is Global (Midlands) PLC ("Global"). Alpha is concerned that Global may not have the necessary financial resources to complete this project and has asked for reassurance. Global's response is that the company is part of the Mega Group, whose parent company is quoted and is based in Alpha's home country. Global has submitted the Mega Group's latest consolidated financial statements to demonstrate the solvency of the group.
Discuss the extent to which Alpha should rely on the Mega Group's consolidated financial statements in determining Global's ability to service this contract.

7. **CT2 April 2015 Question 19**
The directors of Vapor receive a set of financial statements every month for discussion at their regular board meetings.

The report for the month of February has just been prepared, along with comparative figures for the month of January.
(All figures in £000s)

Profit or loss statements for the month of:

	February	January
Revenue	900	700
Cost of goods sold	(368)	(175)
	532	525
Operating costs	(240)	(250)
Profit for the month	292	275

...d of:

Property, plant and equipment	1,898	1,500
Current assets		

During February, Vapor paid £400,000 for an item of equipment. The payment was funded using a bank overdraft as a temporary measure. Vapor will take out a £400,000 long-term loan in May.

February's revenue includes a £200,000 sale to a registered charity at cost price. Apart from supporting the charity's work, this sale generated some valuable publicity for the company.

Vapor's directors receive a short table of accounting ratios to accompany their monthly financial statements. The production director has suggested that this table should be extended to include the figure for return on capital employed. The finance director has replied that the return on capital employed ratio should not be calculated on a monthly basis, but should be monitored annually.

i. Calculate the following ratios for January and February, making appropriate adjustments to the figures in respect of the information provided concerning the purchase of the new equipment and the sale to the charity:
   - gross profit margin
   - current ratio
   - trade receivables turnover in days
   - trade payables turnover in days.

ii. Explain the reasons for the adjustments that you made in part (i) in respect of the information provided concerning the purchase of the new equipment and the sale to the charity.

iii. Discuss the finance director's argument that the return on capital employed ratio should be reviewed annually, but not monthly.

8. **CT2 September 2015 Question 18**
   Discuss the proposition that none of a company's profitability ratios matter provided the return on capital employed ratio is satisfactory.

9. **CT2 April 2016 Question 14**
   Suggest possible reasons why acceptable gearing ratios often vary between countries.

10. **CT2 September 2016 Question 12**
    A potential customer asserts that it is safe for a company to grant it trade credit because the customer is a wholly-owned subsidiary of a major group of companies.
    Discuss the validity of the customer's claim.

11. **CT2 September 2016 Question 13**

Unit 4

PRACTICE QUESTIONS

Describe the advantages and disadvantages of comparing the profitability of two competing companies in terms of their earnings before interest, taxation, depreciation and amortisation (EBITDA) rather than their profit for the year.

12. **CT2 September 2016 Question 18**
Derek has a substantial shareholding in a quoted company. The company issued its latest financial statements recently.
There is a significant difference between the basic and the diluted earnings per share (EPS) figures. Explain which EPS figure is more likely to be of interest to Derek.

13. **CT2 April 2017 Question 16**
Explain why the maximum acceptable level of gearing ratio might vary from country to country.

14. **CT2 September 2017 Question 12**
Describe the relevance of the non-controlling interest in a set of consolidated financial statements to the shareholders of the parent company.

15. **CT2 September 2017 Question 19**
The following figures have been extracted from the financial statements of Fratton, a manufacturing company.

Extracts from income statement for the year ended 31 August

	2015	2016	2017
	$000	*$000*	*$000*
Revenue	800	900	1,000
Purchases	480	513	520
Cost of sales	476	506	515

Extracts from statement of financial position for the year ended 31 August

	2015	2016	2017
	$000	*$000*	*$000*
Current assets			
Inventory	40	47	52
Trade receivables	67	86	105
Cash at Bank	16	8	2
	123	141	159
Current liabilities			
Trade payables	72	90	104
Tax	14	20	28
	86	110	132

The following liquidity ratios have been calculated for the first two sets of figures:

	2015	2016
Current ratio	1.4 :1	1.3 :1
Quick ratio	1.0 :1	0.9 :1
Inventory turnover	31 days	34 days
Trade receivables turnover	31 days	35 days
Trade payables turnover	55 days	64 days

(i) Calculate the liquidity ratios for 2017.

(ii) Explain why it may be important to consider trends in liquidity ratios rather than the figures as at a single point in time.

(iii) Discuss Fratton's liquidity.

(iv) Explain Fratton's treatment of its trade payables.

16. **CT2 April 2018 Question 14**
Describe why users of financial statements should be careful not to place too much emphasis on accounting ratios.

17. **CT2 April 2018 Question 18**
A parent company has two subsidiary companies, both in distant foreign countries.

Explain the difficulties associated with interpreting this parent company's consolidated financial statements.

18. CT2 April 2018 Question 20
Mountain plc is a quoted company with a year end of 31 December. The directors have traditionally published the financial statements in the second week of February following the year end and have always announced the dividend for the year alongside the publication of the financial statements.

Mountain plc's dividend has grown by between 3% and 5% each year for the past eight years. During September 2016 the directors updated their projections of Mountain plc's financial position. They realised that it would probably not be prudent to increase the dividend compared to last year. Indeed, it may be desirable to reduce the dividend by 5% compared to that for the year ended 31 December 2015.

Mountain plc continues to be profitable. However, a large loan has been negotiated in order to fund expansion. If the market's expectations concerning the dividend for the year ended 31 December 2016 are met then the company's projected gearing ratio will be at the upper limits of the terms specified by the lender. The directors themselves would be uncomfortable with a gearing ratio that was that high.

The directors are debating the best way to address the question of the dividend. Three suggestions have been made:
· Announce the expected reduction in dividend immediately (i.e. in September 2016) with a clear explanation of the reasons.
· Wait and announce the reduced dividend, again with an explanation of the reasons, at the publication of the financial statements (i.e. in February 2017).
· Maintain the dividend growth, but organise a rights issue in order to ensure that there is sufficient equity to maintain the gearing ratio at an acceptable level.

(i) Explain why both the lender and Mountain plc's directors would wish to set an upper limit for the company's gearing ratio.

19. CT2 September 2018 Question 14
Discuss the assertion that a company's optimal gearing ratio could be affected by its line of business.

20. CT2 September 2018 Question 15
The directors of Fentron plc, a major quoted company, are concerned that the company's price earning (P/E) ratio is low.
Explain the significance of the low P/E ratio to Fentron plc's directors.

21. CT2 September 2018 Question 16
Kate has invested her savings in equities issued by quoted companies. In September 2018 she received the annual report for the year ended 30 June 2018 of Contro plc, a major manufacturing company.

Kate is concerned that the liquidity ratios calculated on the basis of Contro plc's statement of financial position look weak. She had similar concerns when she received the 2017 annual report.
Discuss Kate's concern.

22. CB1 April 2019 Question 19

Jill is the chief executive of Gearworks, a small company which manufactures components for the car industry. Gearworks is a member of a trade association. The latest issue of the trade association's journal contains an article that summarises the averages of the accounting ratios of 20 companies which are members of the trade association. The article includes the following table of accounting ratios:

	Average
Return on capital employed, excluding debt	26%
Return on capital employed, including debt	22%
Gross profit margin %	25%
Current ratio	2.1:1
Inventory turnover	42 days
Receivables turnover	50 days

The latest draft financial statements for Gearworks are summarised below:

Gearworks
Statement of profit or loss for the year ended 31 March 2019

	€000
Revenue	1,200
Cost of sales	(840)
Gross profit	360
Administrative expenses	(22)
Distribution costs	(14)
Operating profit	324
Finance charges	(54)
Profit for the year	270

Gearworks
Statement of financial position as at 31 March 2019

	€000
Non-current assets	1,800
Current assets	
Inventory	76
Trade receivables	150
Cash at bank	11
	237
Total assets	2,037
Share capital	500
Retained earnings	862
	1,362
Non-current liabilities	
Loans	600
Current liabilities	
Trade payables	75
Total equity and liabilities	2,037

(i) Calculate each of the six ratios listed in the magazine article using Gearworks' financial statements. You can assume that Revenue consists of credit sales.

(ii) Comment on Gearworks' performance in comparison to the industrial averages.

The draft financial statements provided above were prepared before the estimated tax charge for the year had been calculated.

(iii) Explain how the inclusion of tax would have affected your understanding of Gearworks' performance.

23. CB1 September 2019 Question 17
Describe the purpose of the non-controlling interest figure in a consolidated statement of financial position.

24. CB1 September 2019 Question 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.

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

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

Part B (Cost of capital & Project assessment)

1. **Subject CT2 April 2010 Question 15**
   A small company engaged a firm of a consultants to evaluate a very complicated investment opportunity. The consultancy devised a monte carlo simulation and ran a very large number of iterations. They discovered that the project generated a positive net present value for 85% of the simulation the directors of the company believe that this results is sufficient for them to justify investing in the project.
   Explain how the directors should go about interpreting the results of this simulation before making a final decision on the project.

2. **Subject CT2 October 2010 Question 16**
   (a) Explain the implications for the weighted average cost of capital if a company's ordinary share price decreases.
   (b) Explain how this will affect the company's strategy for investing in capital projects.

3. **Subject CT2 October 2012 Question 20**
   Hatton is a quoted company in the entertainment industry. The company's directors are extremely ambitious and strive to maximise Hatton's rate of growth. The directors have identified the availability of finance as the company's biggest constraint.

   The directors have been offered the opportunity to invest in two projects, each involving the development of a new games console. The projects involve competing products and so they are effectively mutually exclusive because there would be no commercial justification in investing in both.

   Project A requires an investment of £20 million and has a projected net present value of £80 million. Project B requires an investment of £50 million and has a projected net present value of £200 million. Hatton does not have any spare cash and so it will have to raise finance in order to invest in either project.

   The directors of Hatton are unable to decide which of the two investments is better for the company. Each is relatively risky, but the two projects are exposed to virtually the same factors that will determine success or failure and, in that sense, the risks are virtually identical.

   Hatton is heavily geared. The company's equity has a book value of £900 million and its debt has a book value of £350 million. Hatton made a large share issue last year and the directors do not believe that they could seek further equity in the short term. The company's debt includes a major loan from a commercial bank that carries a debt covenant under which the loan is repayable in the event that gearing (measured as debt as a percentage of total finance) exceeds 30%.

   Hatton's marketing director is keen to proceed with Project B on the basis that it offers the greatest opportunity to enhance the company's share price.

   Hatton's chief executive is keen to proceed with Project A on the basis that it will be possible to finance that project without taking the company to the very brink of its debt covenant.

   Hatton's finance director has urged caution and recom ends refusing both opportunities on the grounds that the only cost of doing so is the opportunity cost. His reasons for this recommendation is that the company is already heavily involved in the games business and it might be better to diversify into other areas of entertainment. In his opinion, refusing the projects will not risk harm to Hatton's share price.

   (i) Outline the reasons why a bank might impose a debt covenant such as that affecting Hatton's borrowing capacity.
   (ii) Discuss the risks associated with Hatton permitting its borrowings to rise to the maximum gearing level agreed with its bank.
   (iii) Discuss the validity of comments made by the finance director that:
   (a) the share price will not be harmed by the opportunity cost associated with turning down an investment project with a positive NPV.
   (b) the share price could be improved by Hatton diversifying its investment base.

4. **Subject CT2 April 2013 Question 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. **Subject CT2 April 2013 Question 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% pa.
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.
(ii) Determine Partan's approximate cost of debt.
(iii) Calculate Partan's WACC.

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.

6. **CT2 September 2013 Question 15**
A quoted company's chief engineer has identified an opportunity to develop a project that will offer a huge competitive advantage. Even a conservative estimate of net present value shows that this is likely to be a successful investment. The directors have advised the engineer that they will not proceed with the project because it will be difficult to explain to the shareholders. The technology is simply too difficult to understand and there will be a five year development phase.

Discuss the logic of the directors' position with respect to this project.

7. **CT2 April 2015 Question 15**

An investor maintains a balanced portfolio of shares. She tends to favour low beta securities. She was concerned to discover that the beta of a particular share that she has held for many years has increased over the past year.

Explain why a beta value might change.

8. **CT2 April 2015 Question 16**
An investment project involves an initial investment, followed by five years with net cash inflows and a sixth year with a net cash outflow because the site used for the project will have to be repaired.

The project's internal rate of return (IRR) has been calculated. There are two internal rates of return: 2% p.a. and 9% p.a.

Explain how a project could have two internal rates of return and how this will affect the decision to accept or reject the project.

9. **CT2 September 2015 Question 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.

10. **CT2 September 2015 Question 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.

11. **CT2 April 2016 Question 15**
Many organisations require the evaluation of a project appraisal report to be documented. Explain the purpose of this documentation.

12. **CT2 April 2016 Question 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.

13. **CT2 April 2017 Question 19**
Hort is an actuarial consultancy. Hort has owned a two floor office block for the past 20 years.

Improvements in technology mean that Hort has reached the point where the whole of the upper floor is left unoccupied.

Hort's directors are considering using the free space in the building to launch a new consultancy venture. This would involve taking on new consultants with relevant expertise, as well as equipping the floor with suitable IT equipment.

The initial investment in the IT equipment will be £1.5 million.

Over the next five years, Hort predicts that the fees earned from the new consultancy venture, minus the cash outflows associated with wages and other running costs, will have a net present value of £4.0 million.

Hort's directors believe that they should allow something for the building in deciding whether to proceed with this venture. Four possible arguments have been put forward by four members of the board:

1. The building cost £2.0 million when it was acquired and it has been depreciated by £800,000 since. That leaves a net book value of £1.2 million, of which £0.6 million could be attributed to the upper floor.
2. The cost of the building is a sunk cost and it should not be incorporated into the project appraisal.
3. The upper floor could be sold to a third party for £2.7 million.
4. The upper floor could be rented out over the next five years, with rental income yielding a net present value of £0.9 million.

The debate over the building has been heated because it could affect the decision to go ahead with the project.

(i) Discuss the logic of each of the four arguments concerning the building.

(ii) Explain how Hort's Board should decide on the most appropriate treatment of the building.

Critics of the net present value (NPV) technique state that it has a fundamental flaw in that it is possible to justify either the acceptance or rejection of almost any project by manipulating estimates and assumptions in the evaluation of NPV.
(iii) Evaluate the assertion that this project illustrates this fundamental flaw in the net present value criterion.

14. **CT2 April 2018 Question 15**
    Explain why an investment opportunity could be rejected when evaluated using the shareholder value approach despite having a positive net present value (NPV).

15. **CT2 September 2018 Question 13**
    A quoted company is evaluating a potential investment opportunity.
    Explain the relevance of opportunity costs to the evaluation of that opportunity.

16. **CT2 September 2018 Question 20**
    Doron is an unquoted company which was founded 12 years ago and which has grown steadily since. Its directors are considering an investment opportunity that will increase the productive capacity of the business by 30%.

    Doron was established using the savings of its three founders, who now comprise the company's board of directors. Each of the three founders owns one third of the company's equity. Doron's growth has been funded using retained earnings and the proposed expansion will be funded in the same way. The company has no debt. None of the founders has any other significant personal assets apart from their shares in Doron and their family homes.

    The founders are considering more sophisticated approaches to the evaluation of capital investment projects. They have asked you to determine Doron's cost of equity. They have established the following facts:
    - The risk free rate is 4% per annum.
    - The equity risk premium is 10% per annum.
    - The beta coefficient of a quoted company which is in the same industry as Doron is 1.4.
    - The above quoted company has a debt:equity ratio of 0.6:1.
    - The corporation tax rate is 20%.

    (i) Calculate Doron's cost of equity.
    (ii) Discuss the relevance of the rate that you calculated in part (i) to the evaluation of the project to expand Doron.
    (iii) Discuss the relevance of the rate that you calculated in part (i) to the three founders.

17. **CB1 September 2019 Question 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.

18. **CB1 September 2019 Question 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.
(ii) Discuss the Production Director's proposition that the risk had been evaluated and so the board should not be criticised.
(iii) Discuss the respective relevance of Tarvale's geared and ungeared betas to its shareholders.

19. **CB1 April 2020 Question 12**
The directors of ABC, a manufacturing company, evaluate projects using the payback method. The directors are reluctant to switch to the net present value criterion and are justifying their reluctance on the basis that the company has grown steadily since it was founded 20 years ago.
Describe the relevance of the payback criterion to ABC.

20. **CB1 April 2020 Question 20**
Vonder is a major quoted company that manufactures tyres. The company's annual report for the year ended 30 June 2020 was released yesterday. The following summary was included in the business pages of this morning's newspapers:

	Current year $ billion	Last year $ billion
Operating profit	48	44
Book value of equity	362	351
Market capitalisation of equity	447	427
Non-current liabilities	350	240

The newspaper article referred to the fact that the figures take account of a new factory that cost Vonder $150 billion when it took possession in May 2020. The purchase was paid for using debt that was raised on the date of acquisition.
Vonder's CEO is concerned that the company's shareholders will misunderstand the company's Return On Capital Employed (ROCE) for the year ended 30 June 2020.

(i) Explain the relevance of the book value and the market capitalisation of equity for the calculation of Vonder's ROCE.
(ii) Discuss the implications of the investment in the new factory for Vonder's ROCE.
(iii) Discuss the implications of a misunderstanding of ROCE for Vonder's share price.

21. CB1 September 2020 Question 13
A company has traditionally evaluated projects on the basis of their net present value (NPV).
Discuss the advantages of extending project evaluation to include strategic fit as an additional factor in investment appraisal.

22. CB1 September 2020 Question 15
A quoted company bases investment decisions on the internal rates of return (IRR) offered by potential projects. In order to be accepted, a project's IRR must be greater than 12% per annum.
Discuss this investment criterion.

23. CB1 September 2020 Question 16
Discuss the proposition that the cost of equity is zero for an unquoted company because there is no observable share price.

24. CB1 April 2021 Question 13
A change in safety regulations will require a train company to fit new equipment to all trains. The company does not believe that the equipment will reduce the risk of accidents and it will be expensive.
Explain the usefulness of the Net Present Value (NPV) criterion in planning the company's response to this change.

Unit 4

PRACTICE QUESTIONS

25. CB1 April 2021 Question 14

A quoted company has a policy of seeking an internal rate of return of at least 14% p.a. on all investments of more than €5 million. This rate was set 5 years ago. Describe the company's approach to capital project appraisal.

26. CB1 April 2021 Question 20

Drentel is a quoted company that manufactures bicycles and was established many years ago. It has been making losses for the past 5 years because its products have not kept up with consumer tastes and sales have been declining.

Despite the losses, Drentel has continued to pay a steady dividend each year.

Drentel's Board is considering a proposal to sell a range of battery-powered electric bicycles, which is a major growth area in the bicycle market. Drentel's current range of bicycles is suitable for modification to carry an electric motor. This would require a significant investment in order to acquire the rights to use patented manufacturing processes and also to acquire the specialised machinery that would have to be built to Drentel's specifications. The investment required is equivalent to approximately 25% of the company's market capitalisation.

Drentel's beta is currently 1.8. The Board believes that the beta will fall to 1.6 if the company proceeds with the electric bicycle project.

(i) Evaluate the relevance of the decline in Drentel's beta for the decision to invest in electric bicycles.
(ii) Discuss Drentel's policy of maintaining its dividend payments despite losses.

27. CB1 September 2021 Question 20

G is a quoted company that manufactures mobile phones. The company's directors are considering expanding by investing in a new factory that will be designed to manufacture gym equipment. This will incorporate smart sensors that can track users' exercise routines.

G's beta coefficient is 1.3, based on historical observations. The directors believe that the proposed investment in the new factory will make G's future cash flows more volatile, but will have the effect of reducing beta to 1.1, ignoring the effects of funding the investment.

The funding of the proposed investment has yet to be decided. It may be in the form of debt or equity.

(i) Discuss the significance of the fact that the calculation of G's present beta coefficient was based on historical observations.
(ii) Suggest possible reasons why the investment in the new factory could have the effect of increasing the volatility of G's cash flows while reducing its beta.
(iii) Evaluate the likely effect of the choice between debt and equity for the funding of this investment for G's beta.

28. CB1 April 2022 Question 11

Describe the challenges of identifying and evaluating the opportunity costs of an investment project.

Unit 4

PRACTICE QUESTIONS

29. CB1 April 2022 Question 12

Outline the advantages of setting a standard hurdle rate of, for example, 15% p.a. for all investment projects undertaken by a large company.