AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment Planning

April 2018 Examination Guide

SPECIAL NOTICES

Candidates entered for the October 2018 examination should study this examination guide carefully in order to prepare themselves for the examination.

Practice in answering the questions is highly desirable and should be considered a critical part of a properly planned programme of examination preparation.

AF4 – Investment planning

Contents

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IMPORTANT GUIDANCE FOR CANDIDATES

Introduction

The purpose of this Examination Guide is to help you understand how examiners assess candidates' knowledge and their ability to apply this to a case study scenario. You can then use this understanding to help you in your preparation for the examination.

Before the examination

Study the syllabus carefully
This is available online at www.cii.co.uk or from Customer Service. All the questions in the examination are based directly on the syllabus. *You will be tested on the syllabus alone,* so it is vital that you are familiar with it.

There are books specifically produced to support your studies that provide coverage of all the syllabus areas, however you should be prepared to read around the subject. This is important particularly if you feel that further information is required to fully understand a topic or an alternative viewpoint is sought. The reading list which can be found with the syllabus provides valuable suggestions.

Note the assumed knowledge
For the Advanced Diploma in Financial Planning, candidates are assumed to have studied the relevant units of the Diploma in Financial Planning or the equivalent. This knowledge is set out on the relevant syllabus.

Read widely
If you do not have experience in advising clients whose financial needs are relatively sophisticated, *it is quite unrealistic to expect that the study of a single textbook will be sufficient to meet all your requirements.* While books specifically produced to support your studies will provide coverage of all the syllabus areas, you should be prepared to read around the subject. This is important, particularly if you feel that further information is required to fully understand a topic or an alternative viewpoint is sought. It is vital that your knowledge is widened beyond the scope of one book. The reading list which can be found with the syllabus provides valuable suggestions.

Make full use of the Examination Guide

This Examination Guide contains a full examination paper and model answers. The model answers show the types of responses the examiners are looking for and which would achieve maximum marks, *however, you should note that there are alternative answers to some question parts which would also gain high marks.* For the sake of clarity and brevity not all of these alternative answers are shown.

This guide and previous Examination Guides can be treated as 'mock' examination papers. Attempting them under examination conditions as far as possible, and then comparing your answers to the model ones, should be seen as an essential part of your exam preparation. The examiner's comments on candidates' actual performance in each question provide further valuable guidance. You can purchase copies of the most recent Examination Guides online at www.cii.co.uk. CII members can download free copies of older Examination Guides online at www.cii.co.uk/knowledge.

Know the layout of the tax tables

Familiarise yourself with the information contained within the tax tables printed at the back of each Examination Guide. These tax tables will be provided to candidates as part of the examination paper. The tax tables enable you to concentrate on answering the questions without having to worry about remembering all the information. *Please note that you are not allowed to take your own tax tables into the examination.*

Know the structure of the examination
Assessment is by means of a three-hour written paper in two sections. All questions are compulsory:

Section A consists of one case study, worth 80 marks. You will be expected to carry out a variety of tasks, after analysing the information provided.

Section B consists of two shorter case studies worth a total of 80 marks. Again you will be expected to carry out a variety of tasks based upon the information provided.

Each question part will clearly show the maximum marks which can be earned.

Appreciate the standard of the examination
Candidates must demonstrate that they are capable of advising clients *whose overall levels of income and capital require a more sophisticated scheme of investment* than is normally prepared by a level 4 qualified adviser. These clients require a critical appraisal of the various financial planning options available to them.

Read the Assessment information and Exam policies for candidates
The details of administrative arrangements and the regulations which form the basis of your examination entry are available online at www.cii.co.uk/qualifications/assessment-information/introduction/. This is *essential reading* for all candidates. For further information contact Customer Service.

In the examination

The following will help:

Spend your time in accordance with the allocation of marks:

- The marks allocated to each question part are shown on the paper;
- If a question has just two marks allocated, there are likely to be only one or two points for which the examiner is looking for, so a long answer is wasting valuable time.
- Conversely, if a question has 12 marks allocated, a couple of lines will not be an adequate answer. Always remember that if the paper is not completed, your chances of passing will be reduced considerably.
- Do not spend excessive time on any one question; if the time allocation for that question has been used up, leave some space, go on to the next question and return to the incomplete question after you have completed the rest of the paper, if you have time.

Take great care to answer the question that has been set.

- Many candidates leave the examination room confident that they have written a 'good' paper, only to be surprised when they receive a disappointing result. Often, the explanation for this lies in a failure to think carefully about what the examiner requires before putting pen to paper.
- Highlighting key words and phrases is a technique many candidates find useful.
- The model answers provided in this Examination Guide would gain full marks. Alternative answers that cover the same points and therefore answer the question that has been asked would also gain full marks.

Tackling questions

Tackle the three questions in whatever order feels most comfortable. Generally, it is better to leave any questions which you find challenging until you have attempted the questions you are confident about. Candidates' should avoid mixing question parts, (for example, 1(a)(i) and (ii) followed by 2(b)(ii) followed by 1(e)(i)) as this often leads to candidates unintentionally failing to fully complete the examination paper. This can make the difference between achieving a pass or a narrow fail.

It is vital to label all parts of your answer correctly as many question have multiple parts to them (for example, question 1(a) may have parts (i), (ii) and (iii)). Failure to fully distinguish between the separate question parts may mean that full credit cannot be awarded. It is also important to note that a full answer must be given to each question part and candidates should not include notes such as 'refer to answer given in 1(b)(i)'.

Answer format

Unless the question requires you to produce an answer in a particular format, such as a letter or a report, you should use 'bullet points' or short paragraphs. The model answers indicate what is acceptable for the different types of question.

Where you are asked to perform a calculation it is important to show **all** the steps in your answer. The majority of the marks will be allocated for demonstrating the correct method of calculation.

Provided handwriting is legible, candidates will **not** lose marks if it is 'untidy'. Similarly, marks are not lost due to poor spelling or grammar.

Calculators

If you bring a calculator into the examination room, it must be a silent, battery or solar-powered, **non-programmable** calculator. The use of electronic equipment capable of being programmed to hold alphabetical or numerical data and/or formulae is prohibited. You may use a financial or scientific calculator, provided it meets these requirements. The majority of the marks will be allocated for demonstrating the correct method of calculation.

EXAMINERS' COMMENTS

Candidates' overall performance

The paper comprised a broad range of syllabus areas with varying levels of difficulty, from rudimentary to more in-depth, where not only knowledge was required but the application of learning.

Candidates' overall performance did not compare well with that of previous sittings. However, all marks were accessible to fully prepared candidates.

Question 1 covered an important area in which the majority of advisers are regularly involved, i.e. open-ended collective investments, so we would have expected a detailed knowledge of the relevant structure and regulation. Question parts 1(e), 1(f) and 1(g) were often less well answered by candidates. It was disappointing to see that questions deemed central to the adviser market were often not well answered by candidates.

Question 2 related to alternative investment (gold) and derivatives, futures in particular. Given the size and importance of the derivatives market, candidates seemed to be unexpectedly confused between the different types. Many candidates stated that futures were options and mentioned premiums and the absence of obligation.

Question 3 required knowledge of some important accounting ratios widely used in the investment field to compare underlying holdings, namely return on equity (ROE), return on capital employed (ROCE) and price-to-book (P/B) ratios. Candidates who knew the formulae for the first two generally carried out the calculations correctly, but it was only the better prepared candidates who were able go on to estimate the effects of the borrowing on earnings and profits and to distinguish between these. Most candidates mentioned the ROCE relative to the average for the sector. Part 3(c) was not answered well by candidates with many giving indistinct answers e.g. historical information, other factors required and so on.

Question 1

In parts (a)(i) and (a)(ii) it was pleasing to see that almost all candidates gained full marks for these calculation questions.

Part (a)(iii) was well answered although few candidates gained full marks as they did not include the marks available for the effect of the weighting in the worst and best performing sectors.

In part (a)(iv) the Capital Gains Tax calculation was carried out accurately by most candidates.

In part (b) a surprising number of candidates overlooked the word *composite* and simply wrote about benchmarks generally. It is important to read questions carefully before answering.

In parts (c)(i)(ii)(iii) the Sharpe Ratio and Alpha calculations were mainly carried out correctly by candidates and the right inferences drawn in part (c)(iii).

In part (d) a majority of the candidates were aware of the main safeguards afforded by the undertakings for collective investment in securities (UCITS) regulations, and their corresponding absence for unregulated collective investment schemes (UCIS).

In part (e) the question extended some of the general provisions of UCITS to the main underlying rules on diversification and borrowing in particular. Candidates who had revised the topic performed well but a number of candidates limited their answers to general comments and did not perform as well.

Part (f) examined the distinction between a managed group of collective funds (fund of funds) drawn exclusively from the manager's own fund house, i.e. it is fettered or tied to that group, and one where the manager has access to other investment houses' products as well as his or her own (unfettered). It was disappointing to see a high number of candidates did not attempt the question.

Part (g) focused on another way of arranging a managed collective, where funds are allocated by the main manager to a group of in-house managers, with the assets remaining with that operation even if the manager changes, for whatever reason. This question was answered well by a few candidates only.

Question 2

In part (a) most candidates were able to gain at least half of the marks available.

In part (b)(i), physical gold exchange traded commodity (ETC), versus synthetic saw most candidates gaining full marks.

In part (b)(ii) there was generally an awareness from candidates of the factors affecting the price of gold derivatives and how they differ, in consequence, from the spot price.

In part (c)(i) there seemed to be confusion between futures and options. However as there are some overlapping features some marks were still awarded to candidates.

In part (c)(ii) most candidates calculated the opening margin correctly.

Part (c)(iii) asked for knowledge of futures markets and their pitfalls. Quite a number of candidates understood that unlike options futures impose an obligation and that losses can be unlimited.

In part (c)(iv) candidates often missed the mark for options, and short exchange-traded funds (ETFs) were rarely mentioned.

Question 3

In part (a)(i) most candidates scored at least two out of the three marks available. Retained profits was the least popular mark achieved.

In parts (a)(ii) and (a)(iii), candidates who had learnt the required formulae for ROE and ROCE were able to accumulate a good number of marks.

In part (a)(iv) the majority of candidates achieved all of the marks available.

Part (b) was a more challenging question and involved candidates recognising that although *earnings* were enhanced by the applied borrowings *profits* were not. Some better prepared candidates recognised that the borrowing might have been sourced recently or applied to a development or acquisition, both of which might lead to enhanced profits. Most candidates recognised that future cash-flows etc. are not reflected in the ratio.

Part (d)(i) relating to behavioural finance was generally answered well by better prepared candidates and many achieved good marks.

In part (d)(ii) the question required candidates to think about how circumstances *specific* to Lake Edge might make it a worthwhile investment to retain. Answers provided by candidates were often too generalised. Some candidates provided better answers on why the stock might be retained, as they had thought about the question before answering and brought the information supplied into play, e.g. the recent rights issue and its possible effect on the share's performance.

Chartered Insurance Institute

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

April 2018 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2017/2018, unless stated otherwise in the question, and should be answered accordingly.

It should be assumed that all individuals are domiciled and resident in the UK unless otherwise stated.

Instructions

- Three hours are allowed for this paper.
- **Do not begin writing until the invigilator instructs you to.**
- **Read the instructions on page 3 carefully before answering any questions.**
- Provide the information requested on the answer book and form B.
- You are allowed to write on the inside pages of this question paper, but you must **NOT** write your name, candidate number, PIN or any other identification anywhere on this question paper.
- The answer book and this question paper must **both be handed in personally by you** to the invigilator before you leave the examination room. **Failure to comply with this regulation will result in your paper not being marked and you may be prevented from entering this examination in the future.**

Unit AF4 – Investment planning

Instructions to candidates

Read the instructions below before answering any questions

- **Three hours** are allowed for this paper which carries a total of 160 marks as follows:

- Section A: 80 marks
- Section B: 80 marks

- You are advised to spend approximately 90 minutes on Section A and 90 minutes on Section B.

- You are strongly advised to attempt **all** questions to gain maximum possible marks. The number of marks allocated to each question part is given next to the question and you should spend your time in accordance with that allocation.

- Read carefully all questions and information provided before starting to answer. Your answer will be marked strictly in accordance with the question set.

- You may find it helpful in some places to make rough notes in the answer booklet. If you do this, you should cross through these notes before you hand in the booklet.

- It is important to show all steps in a calculation, even if you have used a calculator.

- If you bring a calculator into the examination room, it must be a silent, battery or solar-powered, non-programmable calculator. The use of electronic equipment capable of being programmed to hold alphabetic or numerical data and/or formulae is prohibited. You may use a financial or scientific calculator, provided it meets these requirements.

- Tax tables are provided at the back of this question paper.

- Answer each question on a new page and leave six lines blank after each question part.

Subject to providing sufficient detail you are advised to be as brief and concise as possible, using note format and short sentences on separate lines wherever possible.

SECTION A

This question is compulsory and carries 80 marks

Question 1

Read carefully all information provided in the case study before attempting the questions. Your answers should take into account the clients circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c), (d), (e), (f) and (g) which follow.

Ben is a basic-rate taxpayer. Twelve months ago, he invested £162,000 in Combovest, a fund of funds unit trust. Its performance over the period is measured against a composite benchmark (see **Table 1** below) intended to reflect the Investment Manager's income and growth objective.

Combovest has a Sharpe ratio of 1.9 and an Alpha of 1.5.

Ben is disappointed with Combovest's performance over the year, having learned that another fund, Multivest Income & Growth open-ended investment company (OEIC), a manager of managers fund, performed better over the period.

Ben is considering selling Combovest and putting the money into Multivest Income & Growth OEIC (see **Table 2** below).

Ben has come across press articles about unregulated collective investment schemes (UCIS) warning of the risks of such investments and is concerned about his holding.

Table 1

Benchmark	**UK Equity**	**International Equity**	**Sovereign Bonds**	**Corporate Bonds**	**Property**	**Emerging Markets**	**Overall**
Allocation %	25	25	15	15	10	10	9.9
Performance %	4	17	8	11	13	5	
Combovest							
Allocation %	22	31	12	20	5	10	
Performance %	5	15	11	7	6	18	

Table 2
Multivest Income & Growth OEIC

Return	**Market return**	**Risk-Free return**	**Standard deviation**	**Beta**
12%	9%	1.5%	6	2

Questions

(a) **(i)** Calculate, **showing all your workings**, the percentage change in the value of Ben's Combovest holding. **(7)**

(ii) Calculate, **showing all your workings**, the current value of Ben's Combovest holding. **(2)**

(iii) Comment, in detail, on Combovest's asset allocation and fund selection in relation to UK Equity, International Equity and Emerging Markets. **(8)**

(iv) Calculate, **showing all your workings**, Ben's Capital Gains Tax liability if he were to sell Combovest. *Assume Ben remains a basic-rate taxpayer.* **(4)**

(b) Explain to Ben what is meant by a composite benchmark. **(5)**

(c) Using the figures given in **Table 2**, calculate, **showing all your workings**;

(i) the Sharpe ratio for Multivest. **(4)**

(ii) the Alpha for Mulivest. **(5)**

(iii) Explain to Ben how your results calculated in **parts (c)(i) and (ii)** above might affect his plans for Combovest. **(5)**

(d) **(i)** Explain to Ben the main differences between undertakings for collective investment in securities (UCITS), and unregulated collective investment schemes (UCIS) that can result in UCIS having higher risk. **(8)**

(ii) State **five** types of investor to whom UCIS may be promoted. **(5)**

(e) Explain to Ben the safeguarding regulations in place that govern UCITS in respect of:

(i) diversification; **(6)**

(ii) borrowing. **(4)**

(f) Ben has learned that Combovest is a fettered fund of funds but is unclear as to the meaning of the term.

(i) Explain briefly the terms fettered and unfettered. **(4)**

(ii) State and explain **one** relative advantage of each approach in your answer from **part (f)(i)** above. **(4)**

(g) **(i)** Explain to Ben how the Multivest manager of managers fund arrangement works. **(5)**

(ii) Identify **two** advantages and **two** disadvantages of the manager of managers arrangement in comparison to the fund of fund arrangement. **(4)**

Total marks available for this question: (80)

SECTION B

Both questions in this section are compulsory and carry an overall total of 80 marks

Question 2

Read carefully all information provided in the case study before attempting the questions. Your answers should take into account the clients circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b) and (c) which follow.

Atique is an experienced investor with an investment portfolio of £400,000 split equally between equities and bonds.

His father has recently died, and Atique has received an inheritance of £300,000 in cash and British sovereign gold coins, equivalent to 100 troy ounces. Atique's father always held 25% of his investments in gold.

Long-term, Atique would like to follow the strategy advocated by his father by increasing his exposure to gold via a listed gold exchange traded commodity (ETC), rather than directly purchasing further quantities of gold coins.

Atique fears, however, that the price of gold may fall in the short-term and is considering hedging his current gold position using the futures market. The price of the three-month gold future contract is £963 per troy ounce.

Questions

(a) State to Atique **six** benefits and **four** drawbacks of gold coins as a component of his portfolio. **(10)**

(b) **(i)** State the main difference between a physical gold exchange traded commodity (ETC) and a synthetic gold ETC. **(2)**

(ii) Explain why the price of a synthetic gold ETC would differ from the spot price of gold. **(6)**

(c) Given Atique's concern that the price of gold may fall in the short-term, he is considering hedging his current British sovereign gold coins holdings by using a futures contract.

(i) State the type of futures contract Atique should enter into to compensate for a fall in the price of gold and explain how it achieves this objective. **(7)**

(ii) If the initial margin charge is 5%, calculate, **showing all your workings**, the cost of hedging 100 troy ounces of gold, using a three months futures contract. *Ignore commission and other charges in your answer.* **(4)**

(iii) Explain to Atique why a three month's futures contract might **not** be the best way to hedge his position. **(6)**

(iv) State **five** other types of derivative or instrument that could be used to hedge Atique's gold sovereign exposure. **(5)**

Total marks available for this question: 40

Question 3

Read carefully all information provided in the case study before attempting the questions. Your answers should take into account the clients circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c) and (d) which follow.

Pramesh holds shares in Lake Edge plc.

Financial information about this company is included in the table below:

Equity	**Lake Edge**
Sector	Financial Technology
Share price	105p
Long term borrowing	£10,000,000
Shareholders' capital	£45,000,000
Reserves	£750,000
Interest paid	£300,000
Tax paid	£0
Gross profit	£1,400,000
Price-to-book value	0.32

The Financial Technology sector average return on capital employed (ROCE) is 2%.

Pramesh initially purchased some shares in Lake Edge on its market debut at 200p and added to his holding when Lake Edge undertook a rights issue at 300p.

At that time, he was concerned about the level of share price but noted that the issue was likely to be fully subscribed by other investors.

Lake Edge's share price has recently fallen significantly to its current level.

Questions

(a) **(i)** State the **three** elements that make up the definition of 'equity' for the return on equity formula. **(3)**

(ii) Calculate, **showing all your workings**, the return on equity (ROE) for Lake Edge. **(5)**

(iii) Calculate, **showing all your workings**, the return on capital employed (ROCE) for Lake Edge. **(5)**

(iv) Calculate, **showing all your workings**, the interest Lake Edge paid as a percentage of gross profit. **(3)**

(b) In relation to your answers to **parts (a)(ii), (iii) and (iv)** above, explain briefly the impact the borrowings have had on Lake Edge's returns and the possible reasons. **(5)**

(c) Describe the main drawbacks in using price-to-book (P/B) when valuing a company as a potential investment. **(6)**

(d) As a result of a recent fall in Lake Edge's share price, Pramesh is considering whether or not he should dispose of the shares.

(i) From a behavioural finance perspective, state **four** reasons why Pramesh may be inclined not to sell, and explain one justification for each reason, based upon Pramesh's situation. **(8)**

(ii) Identify **five** non-behavioural reasons why Pramesh might decide to retain his shares in Lake Edge. **(5)**

Total marks available for this question: 40

NOTE ON MODEL ANSWERS
The model answers given are those which would achieve maximum marks. However, there are alternative answers to some question parts which would also gain high marks. For the sake of clarity and brevity not all of these alternative answers are shown. An oblique (/) indicates an equally acceptable alternative answer.

Model answer for Question 1

(a) **(i)**

- UK equity 5% x 22% = 1.10%
- Int Equity 15% x 31% = 4.65%
- Sov bds 11% x 12% = 1.32%
- Corp Bds 7 x 20% = 1.4 %
- Property 6 x 5% = 0.3%
- Emerging 18 x 10% = 1.8%
- Markets 10.57%

(ii)

- value = £162,000 + (£162,000 x 10.57%)
- = £179,123.40

(iii)

- UK equity underweight;
- on worst/poor performer;
- but bettered Benchmark performance/so fund selection better.
- International Equity overweight;
- on best/good performing asset class;
- but underperformed benchmark/poor fund selection.
- Emerging Market, same asset allocation;
- but outperformed/better fund choice.

(iv)

- £179,123.40 - £162,000
- = £17,123.40 - £11,300
- = £5,823.40 x 10%
- = £582.34

(b)

- A single indicator of performance/enables comparison with benchmark.
- Made up from elements of a number of different indices/sectors/asset classes.
- In a fixed proportion.
- Dependent on the fund's objectives;
- and risk profile.

(c) **(i)**

- 12
- \- 1.5
- / 6
- = 1.75

(ii)

- 12 - [1.5 + 2(9 - 1.5)]
- 12 - [1.5 + 2(7.5)]
- 12 - (1.5 + 15) = 12 - 16.5 = -4.5

(iii)

- Combovest has a higher Sharpe ratio;
- so has a better risk adjusted return than Multivest.
- The Combovest Manager has a higher Alpha;
- so is better fund/stock-picker/added value;
- so Ben may consider keeping Combovest.

(d) **(i)**

- Undertakings for Collective Investments in Transferable Securities (UCITS) authorised/recognition by EU.
- For retail distribution/UCIS not retail.
- UCITS benefit from better Liquidity.
- UCITS regulated/UCIS not regulated.
- Compensation/investor protection.
- Transparency (of underlying assets/literature)/valuation basis).
- Diversity.
- Borrowing restrictions.

(ii) *Candidates would have gained full marks for any five of the following:*

- Existing holders.
- Certified High Net Worth investors.
- Enterprise and Charitable.
- Eligible Employees of the Fund.
- Eligible Counterparty or Professional/institutional Client (non-retail).
- Certified Sophisticated Investors.
- Self-Certified Sophisticated Investors.

(e) (i) Diversification:

- Not more than 10% value of fund;
- in any one company.
- No more than four companies at maximum/holdings over 5% cannot exceed 40% in total.
- Remainder, maximum 5% of fund value;
- Resulting in minimum of 16 holdings.
- Max 10% unquoted companies.

(ii) Borrowing:

- Borrowing only/normally not permitted;
- up to 10%;
- on a temporary basis/up to three months:
- if supported by expected receipts.

(f) (i) Fettered

- Only/solely/exclusively;
- in-house range funds.

Unfettered

- Unfettered funds can use funds from other managers/third party;
- as well as their own.

(ii) Fettered Advantage

- Can be cheaper/lower costs to run;
- as no additional charge over and above existing underlying fund charges is allowed/no charges above the standard annual management charge (AMC) allowed.

Unfettered Advantage

- Not restricted/broader choice of funds/managers/sectors;
- if one fund fails to perform it can be replaced as wide universe available.

(g) **(i)** *Candidates would have gained full marks for any five of the following:*

- Overall manager decides on asset allocation.
- Appoints manager for each sector/objective/proportion of the fund;
- and monitors its performance.
- Can replace managers/new manager takes over the existing assets.
- Funds are segregated;
- and discretionary.

(ii) *Candidates would have gained full marks for any two of the following:*

Advantages

- Bespoke mandate/overall manager has say in investments.
- No requirement to sell a fund and buy a new one.
- Can replace managers.

Disadvantages

- The new manager, is however, left with whatever his predecessor chose to buy;
- limited number of managers willing to run mandate.

Model answer for Question 2

(a) **Benefits**

- Diversification.
- Reduce overall risk/volatility.
- Negative correlation with equities and bonds.
- Hedge against inflation.
- Hedge against political/financial uncertainty/safe haven.
- Capital Gains Tax free.

Drawbacks

- No income.
- Storage/insurance costs/could get stolen.
- Price affected by intangible factors/supply and demand.
- Wide buy/sell spreads/high transaction costs.

(b) **(i)** **Physical**

- Allocated/owns gold/bullion.

Synthetic

- Purchases futures/swaps/derivatives.

(ii) **Synthetic**

- Uses futures/swaps/derivatives.
- Futures/derivative prices are higher than spot prices/contango.
- To reflect costs of storage/insurance/interest.
- Over the 3-month period.
- Ongoing charges/rollover cost.
- Market expectations.

(c) **(i)**
- Short futures contract.
- Involves obligation.
- To sell;
- at a specific price/price set at outset/strike price;
- at a certain date/three months ahead.
- If price falls can sell gold at higher price as per contract/earns profit;
- effectively buying it back for delivery/ covering any losses/closing out the contract for cash.

(ii)
- 100
- x £963
- £96,300 x 5%
- = £4,815

(iii) *Candidates would have gained full marks for any six of the following:*
- Margin calls if market moves against him.
- Volatility of underlying commodity.
- Need for constant monitoring.
- Usually limited to professional/institutional investors.
- Complex investment/special broker test before dealing.
- Possibility of unlimited loss.
- Underlying must be delivered.

(iv)
- Spread betting.
- Contract for difference.
- Options (Not call)/forwards.
- Short exchange traded commodity (ETC)/Exchange Traded Fund (ETF)/Exchange traded notes (ETN).
- Covered warrant.

Model answer for Question 3

(a) **(i)**

- Shareholders' capital/funds.
- Reserves.
- and retained profits.

(ii)

$$\frac{\text{Net profit after interest \& tax}}{\text{Shareholders funds}}$$

$$\frac{£1{,}400{,}000 - £300{,}000}{[£45{,}000{,}000 + £750{,}000]}$$

= £1,100,000 / £45,750,000
x 100 = 2.4%

(iii)

$$\frac{\text{Earnings before interest and tax}}{\text{Shareholders funds + long-term borrowing}}$$

$$\frac{£1{,}400{,}000}{[£45{,}000{,}000 + £750{,}000] + £10{,}000{,}000]}$$

x 100 = 2.51121076 = 2.51%

(iv)

- £300,000 / £1,400,000 x 100
- = 21.43%

(b) *Candidates would have gained full marks for any five of the following:*

- Return on capital employed (ROCE) is greater than return on equity (ROE);
- borrowings have increased earnings/earnings before interest and tax (EBIT);
- borrowing is costing more than the profit created.
- Unless the borrowings are recent or have been used to fund an acquisition where profits are not yet flowing.
- This is common to the sector which is a recent creation;
- and Lake Edge ROCE still better/higher than peer group.

(c) *Candidates would have gained full marks for any six of the following:*

- Book value of assets may differ from market/sale value.
- Current valuation/does not factor in future cash flow/earnings.
- Not suitable for companies with intangible assets/only measures tangible assets.
- Can be easily distorted by share price movement.
- Not suitable for comparing companies in different sectors.
- Output not robust/low price-to-book (P/B) ratios does not automatically mean undervalued.
- Low P/B may be function of terminally falling share price.

(d) **(i)**

- Loss aversion.
- Selling at 105p would realise a loss.
- Anchoring.
- He paid 200p & 300p/round figures for the stock.
- Endowment effect/emotional attachment.
- Sense of attachment/loyalty.
- Overconfidence/optimism.
- Believes stock is still a good investment/his own analysis is best.

(ii)

- New technology sector/industry/scope for growth.
- Better than average ROCE for sector.
- May be oversold after recent selling/recovery stock.
- To see through the effects of the rights issue/reduced borrowing.
- Possible takeover target/breakup value greater than share price.

All questions in the October 2018 paper will be based on English law and practice applicable in the tax year 2018/2019, unless stated otherwise and should be answered accordingly.

The Tax Tables which follow are applicable to the October 2017 and April 2018 examinations. The Tax Tables for the October 2018 examination can be found online on the CII website: www.cii.co.uk

INCOME TAX

RATES OF TAX	2016/2017	2017/2018
Starting rate for savings*	0%	0%
Basic rate	20%	20%
Higher rate	40%	40%
Additional rate	45%	45%
Starting-rate limit	£5,000*	£5,000*
Threshold of taxable income above which higher rate applies	£32,000	£33,500
Threshold of taxable income above which additional rate applies	£150,000	£150,000
Child benefit charge from 7 January 2013:		
1% of benefit for every £100 of income over	£50,000	£50,000

**not applicable if taxable non-savings income exceeds the starting rate band.*

Dividend Allowance		£5,000
Dividend tax rates		
Basic rate		7.5%
Higher rate		32.5%
Additional rate		38.1%
Trusts		
Standard rate band		£1,000
Rate applicable to trusts		
- dividends		38.1%
- other income		45%

MAIN PERSONAL ALLOWANCES AND RELIEFS		
Income limit for Personal Allowance *§*	£100,000	£100,000
Personal Allowance (basic)	£11,000	£11,500
Married/civil partners (minimum) at 10% *†*	£3,220	£3,260
Married/civil partners at 10% *†*	£8,355	£8,445
Transferable tax allowance for married couples/civil partners	£1,100	£1,150
Income limit for age-related allowances*†*	£27,700	£28,000
Rent a Room relief	£4,250	£7,500
Blind Person's Allowance	£2,290	£2,320
Enterprise Investment Scheme relief limit on £1,000,000 max	30%	30%
Seed Enterprise Investment relief limit on £100,000 max	50%	50%
Venture Capital Trust relief limit on £200,000 max	30%	30%

§ the Personal Allowance reduces by £1 for every £2 of income above the income limit irrespective of age (under the income threshold).
† where at least one spouse/civil partner was born before 6 April 1935.

Child Tax Credit (CTC)		
- Child element per child (maximum)	£2,780	£2,780
- family element	£545	£545
Threshold for tapered withdrawal of CTC	£16,105	£16,105

NATIONAL INSURANCE CONTRIBUTIONS

Class 1 Employee		**Weekly**
Lower Earnings Limit (LEL)	£113	
Primary threshold	£157	
Upper Earnings Limit (UEL)	£866	

Total earnings £ per week	**CLASS 1 EMPLOYEE CONTRIBUTIONS**
Up to 157.00*****	Nil
157.01 – 866.00	12%
Above 866.00	2%

**This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £113 per week. This £113 to £157 band is a zero-rate band introduced in order to protect lower earners' rights to contributory State benefits e.g. the new State Pension.*

Total earnings £ per week	**CLASS 1 EMPLOYER CONTRIBUTIONS**
Below 157.00**	Nil
157.01 – 866.00	13.8%
Excess over 866.00	13.8%

*** Secondary earnings threshold.*

Class 2 (self-employed)	Flat rate per week £2.85 where profits exceed £6,025 per annum.
Class 3 (voluntary)	Flat rate per week £14.25.
Class 4 (self-employed)	9% on profits between £8,164 - £45,000. 2% on profits above £45,000.

PENSIONS

TAX YEAR	LIFETIME ALLOWANCE
2006/2007	£1,500,000
2007/2008	£1,600,000
2008/2009	£1,650,000
2009/2010	£1,750,000
2010/2011	£1,800,000
2011/2012	£1,800,000
2012/2013	£1,500,000
2013/2014	£1,500,000
2014/2015	£1,250,000
2015/2016	£1,250,000
2016/2017	£1,000,000
2017/2018	£1,000,000

LIFETIME ALLOWANCE CHARGE

55% of excess over lifetime allowance if taken as a lump sum.
25% of excess over lifetime allowance if taken in the form of income, which is subsequently taxed under PAYE.

ANNUAL ALLOWANCE

TAX YEAR	ANNUAL ALLOWANCE
2011/2012	£50,000
2012/2013	£50,000
2013/2014	£50,000
2014/2015	£40,000
2015/2016	£40,000~
2016/2017	£40,000*
2017/2018	£40,000*

~ increased to £80,000 for pension input between April - 8 July 2015. If not used, can be carried forward to pension input period of 9 July 2015 - 6 April 2016, subject to a maximum of £40,000.

**tapered at a rate of £1 for every £2 of adjusted income in excess of £150,000 where threshold income exceeds £110,000.*

MONEY PURCHASE ANNUAL ALLOWANCE	2016/2017	2017/2018
	£10,000	£4,000

ANNUAL ALLOWANCE CHARGE

20% - 45% determined by the member's taxable income and the amount of total pension input in excess of the annual allowance or money purchase annual allowance.

CAPITAL GAINS TAX

EXEMPTIONS	**2016/2017**	**2017/2018**
Individuals, estates etc	£11,100	£11,300
Trusts generally	£5,550	£5,650
Chattels proceeds (restricted to five thirds of proceeds exceeding limit)	£6,000	£6,000

TAX RATES		
Individuals:		
Up to basic rate limit	10%	10%
Above basic rate limit	20%	20%
Surcharge for residential property and carried interest	8%	8%
Trustees and Personal Representatives	20%	20%
Entrepreneurs' Relief* – Gains taxed at:	10%	10%
Lifetime limit	£10,000,000	£10,000,000

**For trading businesses and companies (minimum 5% employee or director shareholding) held for at least one year.*

INHERITANCE TAX

RATES OF TAX ON TRANSFERS	2016/2017	2017/2018
Transfers made on death after 5 April 2015		
- Up to £325,000	Nil	Nil
- Excess over £325,000	40%	40%
Transfers made after 5 April 2015		
- Lifetime transfers to and from certain trusts	20%	20%

A lower rate of 36% applies where at least 10% of deceased's net estate is left to a registered charity.

MAIN EXEMPTIONS

	2016/2017	2017/2018
Transfers to		
- UK-domiciled spouse/civil partner	No limit	No limit
- non-UK-domiciled spouse/civil partner (from UK-domiciled spouse)	£325,000	£325,000
- main residence nil rate band*	£100,000	£100,000
- UK-registered charities	No limit	No limit

**Available for estates up to £2,000,000 and then tapered at the rate of £1 for every £2 in excess until fully extinguished*

	2016/2017	2017/2018
Lifetime transfers		
- Annual exemption per donor	£3,000	£3,000
- Small gifts exemption	£250	£250
Wedding/civil partnership gifts by		
- parent	£5,000	£5,000
- grandparent/bride and/or groom	£2,500	£2,500
- other person	£1,000	£1,000

100% relief: businesses, unlisted/AIM companies, certain farmland/building
50% relief: certain other business assets

Reduced tax charge on gifts within 7 years of death:

- Years before death	0-3	3-4	4-5	5-6	6-7
- Inheritance Tax payable	100%	80%	60%	40%	20%

Quick succession relief:

- Years since IHT paid	0-1	1-2	2-3	3-4	4-5
- Inheritance Tax relief	100%	80%	60%	40%	20%

CAR BENEFIT FOR EMPLOYEES

The charge for company car benefits is based on the carbon dioxide (CO_2) emissions. There is no reduction for high business mileage users.

For 2017/2018:

- The percentage charge is 9% of the car's list price for CO_2 emissions of 50g/km or less.
- For cars with CO_2 emissions of 51g/km to 75g/km the percentage is 13%.
- For cars with CO_2 emissions of 76g/km to 94g/km the percentage is 17%.
- Cars with CO_2 emissions of 95g/km have a percentage charge of 18% and thereafter the charge increases by 1% for every complete 5g/km to a maximum of 37% (emissions of 200g/km and above).

There is an additional 3% supplement for diesel cars not meeting Euro IV emission standards. However, the maximum charge remains 37% of the car's list price.

Car fuel The benefit is calculated as the CO_2 emissions % relevant to the car and that % applied to a set figure (£22,600 for 2017/2018) e.g. car emission 100g/km = 17% on car benefit scale. 17% of £22,600 = £3,842.

1. **Accessories** are, in most cases, included in the list price on which the benefit is calculated.
2. **List price** is reduced for capital contributions made by the employee up to £5,000.
3. **Car benefit** is reduced by the amount of employee's contributions towards running costs.
4. **Fuel scale** is reduced only if the employee makes good **all** the fuel used for private journeys.
5. **All car and fuel benefits** are subject to employers National Insurance contribution's (Class 1A) of 13.8%.

PRIVATE VEHICLES USED FOR WORK

	2016/2017 Rates	2017/2018 Rates
Cars		
On the first 10,000 business miles in tax year	45p per mile	45p per mile
Each business mile above 10,000 business miles	25p per mile	25p per mile
Motor Cycles	24p per mile	24p per mile
Bicycles	20p per mile	20p per mile

MAIN CAPITAL AND OTHER ALLOWANCES

	2016/2017	2017/2018
Plant & machinery (excluding cars) 100% annual investment allowance (first year)	£200,000	£200,000
Plant & machinery (reducing balance) per annum	18%	18%
Patent rights & know-how (reducing balance) per annum	25%	25%
Certain long-life assets, integral features of buildings (reducing balance) per annum	8%	8%
Energy & water-efficient equipment	100%	100%
Zero emission goods vehicles (new)	100%	100%
Qualifying flat conversions, business premises & renovations	100%	100%

Motor cars: Expenditure on or after 01 April 2016 (Corporation Tax) or 06 April 2016 (Income Tax)

CO_2 emissions of g/km:	75 or less*	76-130	131 or more
Capital allowance:	100% first year	18% reducing balance	8% reducing balance

**If new*

MAIN SOCIAL SECURITY BENEFITS

		2016/2017	2017/2018
		£	£
Child Benefit	First child	20.70	20.70
	Subsequent children	13.70	13.70
	Guardian's allowance	16.55	16.70
Employment and Support Allowance	Assessment Phase		
	Age 16 – 24	Up to 57.90	Up to 57.90
	Aged 25 or over	Up to 73.10	Up to 73.10
	Main Phase		
	Work Related Activity Group	Up to 102.15	Up to 102.15
	Support Group	Up to 109.30	Up to 109.65
Attendance Allowance	Lower rate	55.10	55.65
	Higher rate	82.30	83.10
basic State Pension	Single	119.30	122.30
	Married	190.80	195.60
new State Pension	Single	155.65	159.55
Pension Credit	Single person standard minimum guarantee	155.60	159.35
	Married couple standard minimum guarantee	237.55	243.25
	Maximum savings ignored in calculating income	10,000.00	10,000.00
Bereavement Payment Support Payment*		2,000.00	2,000.00
Higher rate - lump sum		N/A	3,500.00
Higher rate - monthly payment		N/A	350.00
Standard rate – lump sum		N/A	2,500.00
Standard rate – monthly payment		N/A	100.00
Jobseekers Allowance	Age 18 - 24	57.90	57.90
	Age 25 or over	73.10	73.10
Statutory Maternity, Paternity and Adoption Pay		139.58	140.98

*Only applicable where spouse or civil partner died on or after 6 April 2007**

CORPORATION TAX

	2016/2017	2017/2018
Standard rate	20%	19%

VALUE ADDED TAX

	2016/2017	2017/2018
Standard rate	20%	20%
Annual registration threshold	£83,000	£85,000
Deregistration threshold	£81,000	£83,000

STAMP DUTY LAND TAX

	Residential
Value up to £125,000	0%
£125,001 - £250,000	2%
£250,001 and £925,000	5%
£925,001 and £1,500,000	10%
£1,500,001 and over	12%

Stamp Duty Land Tax (SDLT) is payable in England, Wales and Northern Ireland only. Land and Buildings Transaction Tax (LBTT) is payable in Scotland at different rates to the above.

Additional SDLT of 3% may apply to the purchase of additional residential properties purchased for £40,000 or greater.

SDLT is charged at 15% on interests in residential dwellings costing more than £500,000 purchased by certain corporate bodies or non-natural persons.

	Non residential
Value up to £150,000	0%
£150,001 and £250,000	2%
£250,001 and over	5%