Chartered Insurance Institute

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment Planning

April 2019 Examination Guide

SPECIAL NOTICES

Candidates entered for the October 2019 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. 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 obtain copies of the two most recent examination guides free of charge at www.cii.co.uk.

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 questions 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

Overall candidates performed well in this paper. The question paper was a broad test of candidate knowledge, testing from across the syllabus and learning outcomes. The paper contained a mix of core content that is tested frequently and more specialist content that is tested less frequently.

The paper was constructed to enable all candidates the opportunity to attain the pass standard, while offering well-prepared candidates the capability to excel without disadvantaging those less prepared.

Some new areas were tested in this sitting and in general, candidates performed poorly to adequately.

In the calculation questions, it was pleasing to see the majority of candidates showing their workings. It is important for candidates in the calculation questions to show their full workings so that credit can still be awarded for completing the correct process even if the final answer is incorrect.

It was very pleasing to see that in almost every question, candidates' answers were aligned with the requirements of the question with no individual question-part(s) being misinterpreted by candidates. This clearly shows that candidates are ensuring they are reading the questions carefully before answering.

In addition, the majority of candidates employed an efficient examination technique, with a bullet-point style format linked to the available marks per question-part. In general, candidates providing focused, succinct answers scored better than those providing unfocused, expansive answers, sometimes written in the hope that by writing more they would gain a greater number of available marks.

Question 1

In part (a) candidates performed well. Relatively few candidates achieved the maximum marks available with many deviating into soft facts and open-ended general questions utilised in fact-finding rather than the context of the case study.

In part (b) candidates performed adequately. In part (b)(i) almost all candidates gained marks for compare against sector/benchmark and out performance/added value/alpha as well as achieving the maximum marks available for part (b)(ii). In part (b)(iii), many candidates offered vague or unfocused answers, such as 'level of cash' with no reference to 'lowest/least'.

In part (c) candidates performed adequately with most candidates gaining the majority of the marks for part (c)(i) with several achieving the maximum marks available. Candidates who did not perform well in part (c)(iii), did not then perform well in part (c)(iv), suggesting poor overall knowledge of fund structures. Many candidates demonstrated a poor understanding of the structure of open-ended collectives in part (c)(iii), believing that more units could simply be created and issued without any link to investor demand. Likewise, in part (c)(iv) candidates also believed that a Real Estate Investment Trust was open-ended and could perform the same function.

In part (d) candidates performed well.

In part (e) candidates did not perform well. In general, candidates' answers stated the efficient market hypothesis in very superficial detail and went on to explain various other theories and/or formulae, including Capital Asset Pricing Model (CAPM), alpha and beta.

In part (f) it was surprisingly to see candidates did not perform well. Despite the question's focus, many candidates stated an assortment of different indices, market sectors, individual stock names as well as different types of investment product.

In part (g) candidates performed adequately. Candidates who followed the requirements of the question in part (g)(i), to explain the main differences, generally performed better as they gained the corresponding/inverse pairs of marks. Candidates who did not perform well stated various explanations for asset allocation, certain investment management styles and beta, so could not gain from the available marks. In part (g)(ii), the vast majority of candidates correctly identified the style for the strategic mark and then also gained investing for long term and more suitable in income generating portfolio marks.

In part (h) candidates did not perform well. Most candidates were able to draw a normal and inverted yield curve and many did so but they were not able to explain what their drawing signified. In part (h)(ii), too many candidates confused inverse with flat or even steepening, giving incorrect reasons for why the curve would invert.

Question 2

In part (a) candidates performed well. Almost every candidate achieved the maximum marks in part (a)(ii), although a small number of candidates completely miscalculated the beta.

In part (b) candidates performed adequately. Most candidates simply duplicated their answer to parts (b)(i) and (ii) suggesting poor overall knowledge. Better-prepared candidates performed well in part (b)(i) with a small number achieving close to maximum marks. In part (b)(ii) almost every candidate achieved only the transaction fees/initial charge/spread/stamp duty and performance fees marks.

In part (c) candidates performed well. Those candidates who did not perform well mainly answered part (c)(i) with a definition and/or formula for Macaulay duration and answered part (c)(iii) with various investment styles, asset allocations and in several instances, references to strategic and tactical asset allocation.

In part (d) it was pleasing to see candidates performed very well with the majority of candidates achieving full marks. Those candidates who did not perform well either stated a method without explanation or included full replication as one of the methods, despite its exclusion in the question. This reinforces the importance of reading a question fully prior to answering it.

In part (e) candidates performed adequately. Most candidates who did not perform well answered with factors a financial adviser would consider when constructing an individual client's portfolio rather than those considered by a fund manager.

Question 3

In part (a) candidates performed adequately. Several candidates correctly calculated the undiluted net asset value but then did not calculate the discount/premium, so were not able to achieve those marks.

In part (b) candidates performed adequately. In part (b)(i), the majority of candidates either did not deduct or add the relevant values and/or mixed up the numerator & denominator, as a consequence they could only achieve a small number of the available marks.

In part (c) candidates performed adequately. Candidates generally answered based upon a value strategy and so were able to gain some of the available marks but not those distinct to a deep value strategy. Candidates who did not perform well also explained alternate investment styles as well as other investment principles and general investment maxims, so were not able to gain well from the available marks.

In part (d) candidates performed well. Many candidates who did not perform well answered with general risks of equity investment, i.e. market/systematic and stock/non-systematic risk, as well as other risks such as counterparty and inflation, which were not connected to the case study and therefore could not gain marks.

Chartered Insurance Institute

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

April 2019 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2018/2019, 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 client's circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c), (d), (e), (f), (g) and (h) which follow.

Beth, aged 46, has just inherited £230,000 following the death of her widowed mother and is looking to invest the money over the long term. She has been self-employed for the past few years with an average net profit of £40,000 per annum.

Beth would like to invest the inheritance to generate a gross income of £6,000 per annum and would also like to see some capital growth.

Beth currently holds three funds in the commercial property sector on a direct basis, as shown in **Table 1**. She invested into these several years ago with the proceeds from her divorce. Beth is pleased with the performance of her existing investments but was concerned in the summer 2016 when she received some correspondence from one of the fund managers stating that she would not be able to withdraw her capital for a period of time.

Table 1

Fund Type	**Fund structure**	**Current cash level within fund**	**5 year fund return**	**Tracking error**	**Information Ratio**
Commercial property	Exchange Traded Fund	1%	38%	-	-9.09%
City office	Real Estate Investment Trust	0.5%	45%	-	1.35%
Direct property	Open-Ended Investment Company	15%	48%	7.2%	-

Beth has asked her financial adviser for investment advice in respect of her inheritance. The financial adviser is planning a portfolio consisting of UK equities and UK corporate bonds funds only. The adviser is considering strategic or tactical asset allocation, using both passive and active funds.

Beth has also asked for information about the yield curve and wants to know how it could impact upon her potential investment.

Questions

*To gain maximum marks for calculations you **must** show **all** your workings and express your answer to **two** decimal places.*

(a) State the additional information that the financial adviser would require from Beth in order to establish her investment needs. **(7)**

(b) **(i)** Explain the purpose of the information ratio to Beth. **(4)**

(ii) Calculate, **showing all your workings**, the information ratio for the direct property OEIC. *Assume a benchmark return of 40%.* **(4)**

(iii) State **six** reasons how city office REIT may have achieved the highest information ratio. **(6)**

(c) **(i)** Explain the potential reasons why the direct property OEIC has a higher level of cash. **(5)**

(ii) Explain the effects of the higher level of cash within the direct property OEIC. **(3)**

(iii) State **four** ways in which an open-ended fund structure could respond to a liquidity crisis following substantial redemption requests. **(4)**

(iv) State **four** ways in which a closed-ended fund structure could respond to a liquidity crisis following substantial redemption requests. **(4)**

(d) The financial adviser uses an efficient frontier curve when evaluating the portfolio's asset allocation.

(i) State the **three** inputs required to produce an efficient frontier curve. **(3)**

(ii) Explain how the efficient frontier is used in investment planning. **(3)**

(iii) State **five** limitations of using the efficient frontier. **(5)**

(e) Incorporating passive funds within the investment portfolio assumes the efficient market hypothesis (EMH) applies in one of its forms.

Describe the weak form of EMH. **(6)**

(f) List **three** Investment Association sectors that could be suitable to provide the funds to construct the UK equity component of the investment portfolio to meet Beth's objectives. **(3)**

(g) **(i)** Explain the main differences between strategic and tactical asset allocation. **(8)**

(ii) State, giving **two** reasons why, which type of asset allocation would be most suitable for Beth. **(3)**

(h) **(i)** Explain a normal yield curve to Beth. **(4)**

(ii) Outline what would cause a normal yield curve to invert and explain the potential implications for Beth's portfolio. **(8)**

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 client's circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c), (d) and (e) which follow.

Noam, a retail client, has approached his financial adviser Clare for investment advice. He has an existing investment portfolio and wishes to add some new money to the portfolio. Noam has read about absolute return funds and has asked Clare to select one for the new investment, as he believes this could give him attractive returns with a low risk of losing money.

As part of her investment research, Clare is assessing Myriad, an absolute return fund that uses a combination of passive exchange traded funds (ETFs) and active open-ended investment companies (OEICs) to create a portfolio which invests across UK equities, fixed interest securities, derivatives and cash. The fund manager changes the underlying assets frequently to deliver absolute returns. Details of the fund are shown in **Table 1**.

Table 1

	Expected Return	**Expected Market Return**	**Risk Free Return**	**Alpha**
Myriad fund	4%	6%	0.75%	1.5%

The Ongoing Charges Figure (OCF) of the fund is 1.7%.

Questions

*To gain maximum marks for calculations you **must** show **all** your workings and express your answer to **two** decimal places.*

(a) **(i)** Explain **four** benefits of using the Capital Asset Pricing Model (CAPM) in assessing the potential suitability of the Myriad fund. **(4)**

(ii) Calculate, **showing all your workings**, the beta for the Myriad fund using the CAPM. **(5)**

(iii) Comment on how the Myriad fund would be expected to perform compared to its benchmark index in both rising and falling markets based on your answer to part **(a)(ii)** above. **(3)**

(b) **(i)** List **four** fees that are included within the OCF figure. **(4)**

(ii) State **four** costs in addition to those in your answer to part **(b)(i)** above that may be paid when investing in the Myriad fund. **(4)**

(c) Myriad's manager is concerned about potential changes in monetary policy and is intending to reduce Myriad's fixed interest duration and increase its credit quality.

(i) State what is meant by modified duration. **(2)**

(ii) State what is meant by credit quality. **(2)**

(iii) Explain briefly how Myriad's manager achieves the above objective. **(2)**

(d) State and explain briefly the **three** other methods that an equity ETF would use to track its underlying index. ***Exclude** full replication from your answer.* **(6)**

(e) Identify **eight** factors the Myriad manager would consider when deciding whether to invest in OEICs or ETFs. **(8)**

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 client's circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c) and (d) which follow.

A financial adviser has recently taken on a new retail client, Haymi, who has an existing investment portfolio. The adviser is researching the two companies that make up the portfolio.

GDV Trust plc is an investment trust that invests in global equities and employs a deep value investment philosophy. Additional financial information for GDV Trust plc is shown in **Table 1**.

Aviation Alloys plc is a company producing high tech aerospace components, which it sells internationally to aircraft manufacturers. Additional financial information for Aviation Alloys plc is shown in **Table 2**.

Both companies are listed on the FTSE-250 Index.

Table 1

	Shares issued	**Warrants issued**	**Share price**	**Total capital employed**	**Long term debt**	**Warrant subscription price**
GDV Trust plc	22,000,000	650,000	228p	£73,400,000	£18,000,000	89p

Table 2

	Ordinary shares issued	**Profit attributable to all shareholders**	**Preference share dividend**	**Ordinary share dividend**
Aviation Alloys plc	80,000,000	£34,000,000	£5,900,000	£17,000,000

Questions

*To gain maximum marks for calculations you **must** show **all** your workings and express your answers to **two** decimal places.*

(a) **(i)** Calculate, **showing all your workings**, the undiluted net asset value per share for GDV Trust plc and its discount/premium. **(7)**

(ii) Calculate, **showing all your workings**, the diluted net asset value per share for GDV Trust plc. *Assume that all the warrants are exercised at the subscription price*. **(4)**

(iii) Identify the implications for Haymi if she chooses not to exercise the warrant. **(3)**

(b) **(i)** Calculate, **showing all your workings**, GDV Trust plc's net gearing ratio. **(4)**

(ii) State **four** possible consequences for GDV Trust plc of an increase in its borrowings. **(4)**

(iii) Calculate, **showing all your workings***,* the basic earnings per share (EPS) for Aviation Alloys plc. **(4)**

(iv) Calculate, **showing all your workings**, the dividend cover on an individual share basis for Aviation Alloys plc. **(4)**

(c) Explain briefly what is meant by a deep value investment strategy. **(4)**

(d) Based upon the description in the case study, list the **three** main risks that are specific to Aviation Alloys plc's business and give **one** example for **each** of the three risks. **(6)**

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)
- Attitude to risk.
- Capacity for loss.
- State of health.
- Emergency fund.
- Other assets/ liabilities.
- Ethical/Socially Responsible Investment preferences.
- Future lump sums required.

(b) **(i)**
- Compare against sector/benchmark.
- Assess risk adjusted returns.
- Out performance/added value/alpha.
- Consistency of the manager.

(ii) 48 - 40 / 7.2 = 1.11

(iii) *Candidates would have gained full marks for any six of the following:*
- Sub-sector/commercial office out-performance against sector.
- Consistency of the fund manager.
- Manager's skill in office purchases;
- and disposals.
- Lowest level of cash.
- Trading at premium/closing discount.
- Use of gearing/leverage.
- Tax structure/status/efficiency.

(c) **(i)**
- Inflows into the fund.
- Manager unable to make new investments/deal flow slowed down.
- To cover redemptions.
- Just about to purchase/just sold property.
- Rental income.

(ii) *Candidates would have gained full marks for any three of the following:*
- Drag on performance.
- Reduces risk/protects in falling market.
- Dilutes yield.
- Reduces risk of forced sales/buying opportunities.

(iii) *Candidates would have gained full marks for any four of the following:*
Open-ended/OEIC/ETF
- Dilution levy/exit penalty.
- Switch pricing/swing-pricing/offer to bid price/fair value price.
- Borrow to fund redemptions.
- Gated/limited redemptions/change dealing frequency.
- Suspend redemptions.
- Forced sale of property(ies).

(iv) *Candidates would have gained full marks for any four of the following:*
Closed-ended/REIT
- Borrow.
- Move to discount/widen spread/match buyers and sellers.
- Suspend dealing.
- Rights issue.
- Sell property.

(d) **(i)**
- Expected return.
- Standard deviation/level of risk.
- Correlation.

(ii)
- To set (optimum) asset allocation.
- To show best/highest return;
- given level of risk.

(iii)
- Assumes standard deviation as measure of risk.
- Does not take into account attitude to risk/capacity for loss.
- Uses historic data to predict expected returns.
- Excludes impact of costs and charges.
- Assumes portfolio uses passive funds/cannot factor Alpha.

(e)
- Current prices;
- fully reflect;
- all past prices/trading information.
- Prices cannot be predicted;
- by analysing historic data.
- Technical analysis does not work/fundamental analysis does work.

(f) *Candidates would have gained full marks for any three of the following:*
- UK Equity Income.
- UK All Companies.
- UK Smaller Companies.
- UK Equity & Bond Income.
- Mixed 0-35%/20-60%/40%-85%/Flexible.

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

Strategic
- Fixed weightings/allocation;
- long term;
- with occasional/infrequent rebalancing.
- Little variation from objective.
- No response to market changes.

Tactical
- Varying weightings/allocation;
- short term;
- with frequent rebalancing.
- Substantial variation from objective.
- Take advantage of market changes.

(ii) *Candidates would have gained full marks for any three of the following:*
- Strategic.
- Investing for long term.
- Objective known at outset.
- More suitable in income generating portfolio.

(h) **(i)**
- Longer dated bonds;
- yield more;
- than shorter dated ones.
- Economic optimism/long term interest rates/inflation will be higher.

(ii) *Candidates would have gained full marks for any eight of the following:*
- Expectation that;
- long term interest rates will fall;
- short term interest rates will rise;
- long term inflation will fall.
- Economic outlook pessimistic/low growth/recession.

- More capital will be needed to provide income/longer bonds more expensive.
- Change duration of bonds purchased.
- Asset allocation may need to be changed/revised.

- Property funds value rise/outperform.

Model answer for Question 2

(a) **(i)** *Candidates would have gained full marks for any four of the following:*
- Easy to calculate/uses widely available information.
- Takes account of systematic/market risk.
- Reflects fact most portfolios are diversified to remove unsystematic risk.
- Robust/trusted.
- Gives an expected return/benchmark.

(ii) 4 = 0.75 + beta (6 - 0.75)
(4 - 0.75)
= beta (5.25)
3.25 / 5.25 = beta
Beta = 0.62

(iii)
- Less volatile/sensitive;
- so is likely to underperform in rising markets;
- so is likely to outperform in falling markets.

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

- Management fee/Annual Management Charge.
- Administration fees/secretarial/directors fees/insurance.
- Marketing.
- Audit/tax compliance fees.
- Registration/regulatory fees.
- Custody/depositary/trustee.

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

- Transactions fees/initial charge/spread/Stamp Duty.
- Performance fees.
- One off legal/professional charges.
- Interest/gearing costs.
- Adviser charge.

(c) **(i)**

- Measure of sensitivity of bond's price;
- to changes in interest rates.

(ii)

- Measure of credit worthiness/risk of default.
- Determined by rating agencies/credit rating.

(iii)

- Sell long dated/buy short dated.
- Sell lower credit/buy higher credit.

(d)

- Sampling/stratification.
- Buys some/a sample of index constituents.

- Optimisation.
- Uses computer model/algorithm.

- Futures/synthetic.
- Uses derivatives.

(e) *Candidates would have gained full marks for any eight of the following:*

- Charges.
- Tracking error/benchmark.
- Standard deviation/risk.
- Dealing frequency.
- Alpha/stock-picking/performance/reputation.
- Duplication/concentration risk.
- Dividends.
- Mandate/style/passive/active.
- Counterparty risk.

Model answer for Question 3

(a) **(i)** £73,400,000 - £18,000,000
= £55,400,000 / 22,000,000
= £2.51818181 = £2.52

Undiluted
£2.52 - £2.28
= 24p/9.5% discount

(ii) 650,000 x £0.89 = £578,500
+ £55,400,000
= £55,978,500 / (22,000,000 + 650,000)
= 2.4714570 = £2.47

(iii)
- Her existing shareholding will be diluted.
- Share price/investment value will fall.
- She could sell warrant(s) for cash/warrant(s) could expire.

(b) **(i)** (73,400,000 - 18,000,000) = 55,400,000

18,000,000 / 55,400,000 x 100 = 32.49%

(ii)
- Increases profit.
- Increases losses.
- Increase financial risk/interest rate sensitivity
- Share price more volatile/discount may change.

(iii) £34,000,000 - £5,900,000
= £28,100,000 / 80,000,000
= 35.125p

(iv) £17,000,000 / 80,000,000 = 21.25p

35.125 / 21.25 = 1.652941 = 1.65x

(c) *Candidates would have gained full marks for any four of the following:*
- Investing for long term;
- in undervalued/out of favour stocks.
- Price less than net asset value/book value.
- Contrarian view/buying what others are selling.
- Buy and hold/low turnover.
- Limited downside/greater upside/mean reversion.

(d)

- **Economic risk.**
- Aviation sector cyclical.

- **Currency risk.**
- Earnings on overseas sales/exports impacted by currency volatility.

Candidates would have gained two marks for any two of the following:

- **Political risk.**
- Effect of tariffs/trade sanctions.
- Costs of responding to Brexit.
- Effect of emissions regulations.

All questions in the October 2019 paper will be based on English law and practice applicable in the tax year 2019/2020, unless stated otherwise and should be answered accordingly.

The Tax Tables which follow were applicable to the October 2018 and April 2019 examinations.

INCOME TAX

RATES OF TAX	2017/2018	2018/2019
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	£33,500	£34,500
Threshold of taxable income above which additional rate applies	£150,000	£150,000
Child benefit charge:		
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		£2,000
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)	£11,500	£11,850
Married/civil partners (minimum) at 10% †	£3,260	£3,360
Married/civil partners at 10% †	£8,445	£8,695
Transferable tax allowance for married couples/civil partners	£1,150	£1,190
Income limit for Married couple's allowance†	£28,000	£28,900
Rent a Room relief	£7,500	£7,500
Blind Person's Allowance	£2,320	£2,390
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.
*** maximum for 'standard' investment but for 'knowledge intensive' investment, the limit is £2,000,000.*

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)	£116
Primary threshold	£162
Upper Earnings Limit (UEL)	£892

Total earnings £ per week	CLASS 1 EMPLOYEE CONTRIBUTIONS
Up to 162.00*	Nil
162.01 – 892.00	12%
Above 892.00	2%

**This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £116 per week. This £116 to £162 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 162.00**	Nil
162.01 – 892	13.8%
Excess over 892.00	13.8%

*** Secondary earnings threshold.*

Class 2 (self-employed)	Flat rate per week £2.95 where profits exceed £6,205 per annum.
Class 3 (voluntary)	Flat rate per week £14.65.
Class 4 (self-employed)	9% on profits between £8,424 - £46,350. 2% on profits above £46,350.

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
2018/2019	£1,030,000

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*
2018/2019	£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	2017/2018	2018/2019
	£4,000	£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	2017/2018	2018/2019
Individuals, estates etc	£11,300	£11,700
Trusts generally	£5,650	£5,850
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	2017/2018	2018/2019
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

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	£125,000
- 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*

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 2018/2019:

- The percentage charge is 13% 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 16%.
- For cars with CO_2 emissions of 76g/km to 94g/km the percentage is 19%.
- Cars with CO_2 emissions of 95g/km have a percentage charge of 20% and thereafter the charge increases by 1% for every complete 5g/km to a maximum of 37% (emissions of 190g/km and above).

There is an additional 4% 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 (£23,400 for 2018/2019) e.g. car emission 90g/km = 19% on car benefit scale. 19% of £23,400 = £4,446.

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

	2017/2018 Rates	2018/2019 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

	2017/2018	2018/2019
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:	50 or less*	51-110	111 or more
Capital allowance:	100%	18%	8%
	first year	reducing balance	reducing balance

**If new*

MAIN SOCIAL SECURITY BENEFITS

		2017/2018	2018/2019
		£	£
Child Benefit	First child	20.70	20.70
	Subsequent children	13.70	13.70
	Guardian's allowance	16.70	17.20
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 109.65	Up to 110.75
Attendance Allowance	Lower rate	55.65	57.30
	Higher rate	83.10	85.60
basic State Pension	Single	122.30	125.95
	Married	195.60	201.45
new State Pension	Single	159.55	164.35
Pension Credit	Single person standard minimum guarantee	159.35	163.00
	Married couple standard minimum guarantee	243.25	248.80
	Maximum savings ignored in calculating income	10,000.00	10,000.00
Bereavement Payment*		2,000.00	2,000.00
Bereavement Support Payment**	Higher rate - First payment	3,500.00	3,500.00
	Higher rate - monthly payment	350.00	350.00
	Lower rate – First payment	2,500.00	2,500.00
	Lower rate – monthly payment	100.00	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		140.98	145.18

**Only applicable where spouse or civil partner died before 6 April 2017.*
*** Only applicable where spouse or civil partner died on or after 6 April 2017.*

CORPORATION TAX

	2017/2018	2018/2019
Standard rate	19%	19%

VALUE ADDED TAX

	2017/2018	2018/2019
Standard rate	20%	20%
Annual registration threshold	£85,000	£85,000
Deregistration threshold	£83,000	£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 and Northern Ireland only. Land Transaction Tax (LTT) is payable in Wales and Land and Buildings Transaction Tax (LBTT) is payable in Scotland. The rates for LTT and LBTT are different to the rates shown 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.

First-time buyers benefit from SDLT relief on purchases up to £500,000 when purchasing their main residence. On purchases up to £300,000, no SDLT is payable. On purchases between £300,000 and £500,000, a flat rate of 5% is charged on the balance above £300,000.