CURRICULUM 2019

SPECIMEN EXAMINATION

Subject SP5 – Investment and Finance
Specialist Principles

Time allowed: Three hours and fifteen minutes

INSTRUCTIONS TO THE CANDIDATE

1. Enter all the candidate and examination details as requested on the front of your answer booklet.

2. You must not start writing your answers in the booklet until instructed to do so by the supervisor.

3. Mark allocations are shown in brackets.

4. Attempt all 8 questions, beginning your answer to each question on a new page.

5. Candidates should show calculations where this is appropriate.

Graph paper is NOT required for this paper.

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.

In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.
1  Q1 Sept 2014

(i) Define the term risk budgeting in the context of portfolio construction. [2]

(ii) Outline how the process of risk budgeting is carried out. [5]

[Total 7]

2  Q6 April 2014 – reduced number of sectors to 4 from 5 in (ii), removed part (ii) (c) and reduced number of marks for (ii) by 3

(i) State the main factors affecting equity prices. [2]

An individual has recently received an inheritance from a family member and has decided to invest in the equity market for the first time. They have approached a financial adviser to provide guidance on the individual equities in which they should invest. The individual wishes to have exposure in their portfolio to companies which:

- are large.
- are risky.
- have a high dividend yield.
- have a well-known brand name.
- operate globally.
- move ahead of the trade cycle.
- have volatile profits.
- have high gearing.

(ii) (a) Identify four equity sectors which would ensure that all of the characteristics above are covered.

(b) State, for each of these sectors, the characteristics from the above list which are satisfied. [8]

[Total 10]
3  **Q1 April 2014 – Reduced marks by 1 mark**

An investor has an actively managed bond portfolio currently comprising 50% US government bonds and 50% US investment grade corporate bonds.

The portfolio has specified duration targets for each type of bond and there are various other restrictions on the bonds that can be held.

The bond manager is benchmarked against a broad market index comprising all US denominated investment grade bonds (government, supranational, agency, corporate), and is targeted with outperforming this index by 1% p.a. net of fees.

The manager charges a fee of 0.20% p.a. plus a performance fee of 10% of returns in excess of the 1% target.

Describe the implications of this mandate.

[Total 7]

4  **Q3 April 2014**

(i) List the factors that investors should consider in determining the impact of tax on an investment.

A major economy has decided to simplify its tax system by taxing all income (earned, unearned or gifts) and realised gains and losses at a single rate of 15%. Each citizen will have an annual personal tax-free allowance of $10,000. Interest payments on personal borrowings may be offset against income, but all other allowances will disappear. Activities and investment schemes that previously enjoyed favourable tax treatment will now be taxed at standard rates.

(ii) Describe the potential impacts on the personal investment marketplace.

[Total 10]
It has been decided to change the format of a set of examinations to a multiple-choice format (with no negative marking for incorrect answers).

An examiner is in the process of setting questions and is seeking advice regarding the ordering of the correct and incorrect answers.

The examiner has heard about the theories of behavioural finance and wishes to ensure that the placement of the correct answers will minimise the chances of the students simply guessing the correct answers. He is seeking recommendations as to whether to put the correct answers as the first choice, the last choice or somewhere in the middle.

Based on the theory of behavioural finance:

(i) Suggest where the examiner should place the correct answer in the list of choices (first, last, 2nd, 3rd or 4th) in multiple choice questions with five options, all outlined in considerable detail. [2]

(ii) Suggest where the examiner should place the correct answer (first or last) in multiple choice questions with two options, both outlined in considerable detail. [2]

(iii) Explain the reasoning behind your answers. [8]

[Total 12]
The following market data and information has been provided about a pension fund wholly invested in US equities:

<table>
<thead>
<tr>
<th>Date</th>
<th>Market Value of Fund ($000s)</th>
<th>Domestic Share Index (Capital Only)</th>
<th>Dividend Yield on Domestic Share Index (% per annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Dec 2015</td>
<td>3600</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>31 Mar 2016</td>
<td>3600</td>
<td>1603</td>
<td>4.3</td>
</tr>
<tr>
<td>30 June 2016</td>
<td>4050</td>
<td>1776</td>
<td>4.2</td>
</tr>
<tr>
<td>30 Sept 2016</td>
<td>4500</td>
<td>1797</td>
<td>3.9</td>
</tr>
<tr>
<td>31 Dec 2016</td>
<td>4200</td>
<td>1680</td>
<td>4.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Period (2016)</th>
<th>Contribution Income (Outgo if negative) ($000s)</th>
<th>Investment Income ($000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>56</td>
<td>52</td>
</tr>
<tr>
<td>Q2</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Q3</td>
<td>187</td>
<td>60</td>
</tr>
<tr>
<td>Q4</td>
<td>–52</td>
<td>68</td>
</tr>
</tbody>
</table>

Contributions and investment income all occur on the last day of each quarter.

(i) Calculate for each period and over the full year:

(a) the time-weighted return.
(b) the money-weighted return.
(c) the index return.

State any assumptions made. [9]

(ii) Comment on these returns. [3]

(iii) Compare the investment income actually received by the fund with the investment income that would have been received if the fund had been invested in the index. [2]

(iv) Explain the conclusions that might be drawn about the stock selection policy of the fund, using the information from parts (ii) and (iii). [3]

[Total 17]
7  Q6 Sept 2015 - Reduced marks in part (ii) by one mark

An established life insurance company primarily writes annuity business but has been struggling to maintain adequate capital reserves. A competitor insurance company is performing due diligence on the insurance company with a view to making a takeover offer. The risk of future insolvency is to be analysed using asset-liability modelling techniques.

(i) State the steps that would be taken to construct the model. [3]

The results of the asset-liability modelling suggest that there is insufficient interest rate hedging at the longer durations.

(ii) Assess the advantages and disadvantages of TWO methods that could be used to hedge this risk. [14]

[Total 17]

8  Q8 April 2015 – reduced (i) by one mark

A large global charity provides long term care to the elderly whilst at the same time seeking to have minimal impact on the environment.

(i) Determine what should be the main investment objectives for the charity’s assets. [7]

Following a review of the current investments, it has been decided that a small proportion of the assets should be invested in infrastructure. A specialist investment manager has therefore been appointed.

(ii) Describe the main features of an infrastructure investment. [6]

(iii) Assess whether infrastructure might be considered a suitable asset class for the charity. [4]

(iv) State what should be included in the explicit written mandate between the trustees of the charity and the investment managers. [3]

[Total 20]

END OF PAPER