INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

28 April 2015 (am)

Subject ST4 – Pensions and other Benefits
Specialist Technical

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

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

2. *You have 15 minutes before the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.*

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

4. *Mark allocations are shown in brackets.*

5. *Attempt all seven questions, beginning your answer to each question on a new page.*

6. *Candidates should show calculations where this is appropriate.*

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 A large Company provides a death-in-service benefit to each employee. The benefit is a lump sum equal to twice basic salary on the date that the employee dies.

Currently the Company pays the benefit as a normal business expense, and does not insure the benefit or fund for it in advance.

The Company is considering establishing a reserve at the beginning of each financial year, which will be included in their accounts, equal to the expected cost of the death benefit over that year. In addition, it would take out an insurance policy at the start of the financial year to meet any costs in excess of this reserve from lump sums arising as a result of death benefits over the year being higher than expected.

Outline the advantages and disadvantages to the Company of the proposed funding arrangement compared with the current arrangement. [5]

2 The accounting standards board (ASB) of a particular country is considering the introduction of new disclosure requirements so that investors can gain a better understanding of the significance of the pension liabilities of a company.

Pension schemes in the country are not funded. Pensions are guaranteed by the company and the company is required to purchase an insurance policy which would provide the pension should the company become insolvent.

A group representing investors is intending to make representations to the ASB. They would like to be able to rank companies based on the significance of their pension liabilities.

(i) Set out the relevant information that could be included in company accounts under the new disclosure requirements. [3]

(ii) Outline how this information would help investors to understand the significance of the pension liabilities of a particular company. [3]

(iii) Explain how investors might rank companies according to the significance of their pension liabilities when presented with this information. [2]
[Total 8]

3 A defined benefit pension scheme ("the Scheme") provides a non-escalating pension at a specific retirement age, together with a contingent spouse's pension equal to a fixed percentage of the pension payable to the member. The Scheme is set up under trust and the trustees have decided that greater choice should be offered to members when they reach retirement age.

(i) List the options that the trustees might consider offering to members, assuming that there are no legislative constraints. [5]

The trustees have decided that members should be offered a transfer value at retirement, as an alternative to the pension payable under the Scheme. The transfer value would have to be used to purchase a lifetime annuity with an insurance company.

(ii) Outline the issues that a member should consider when deciding whether to accept this option. [5]
[Total 10]

4 A developing country has introduced disclosure of information legislation in relation to defined benefit pension schemes operating in that country. Such schemes are funded and are set up under trust. The legislation includes the requirement to issue an annual statement summarising the current funding position within three months of the start of each calendar year. A statutory body ("the Regulator") has already been set up by the government to regulate the operation of pension schemes. Penalties for non-compliance of the new disclosure legislation, to be imposed on trustees, are at the discretion of the Regulator.

The Regulator has become aware of a particular pension scheme ("the Scheme") where the disclosure requirement has not been met since the legislation was introduced. The Regulator has contacted the Scheme's trustees, and has received the following response:

> "The membership consists entirely of low paid manual employees. We consulted with relevant employee representative groups and agreed that this information would not be meaningful to any of the members. Instead, it would be likely to cause confusion and potentially alarm. We therefore took the decision not to issue such statements to the members."

(i) Outline, with reasons, the different penalties that might be available to the Regulator in relation to this breach. [2]

(ii) Discuss what you would expect the Regulator to take into account when deciding whether any penalty should be imposed on the trustee board of this Scheme. [8]
[Total 10]

5 The government of a developed country wishes to reduce the financial burden on its State Pension Scheme, which is unfunded. It has proposed to make it compulsory for all employers to enrol all employees automatically into a defined contribution pension scheme. Employees may opt out.

The minimum member contribution rate to such schemes is to be 5% p.a. of basic salary and the associated minimum employer contribution rate is to be 10% p.a. of basic salary. In addition, members will have the right to pay additional contributions not exceeding 5% p.a. of basic salary which employers will have to match.

It has also been proposed that the amount payable under the State Pension Scheme should be reduced to a fixed amount intended to meet basic needs only, and that any employee who opts out of a company pension scheme should lose the right to the state pension entirely.

Outline:

(a) The potential short term financial implications for employees.

(b) The potential short term financial implications for employers.

(c) The potential longer term financial implications for employees.

(d) The potential longer term financial implications for employers.

[12]

6 A company currently sponsors a final salary pension scheme ("the Scheme"). It is proposing to close the Scheme to future service accrual and to establish two new arrangements, which are outlined below. Employees will be able to choose which of these to join for future service benefits.

Option 1 is a shared cost targeted defined contribution scheme. Under this arrangement, there would be no investment guarantees. The Company would undertake a regular review of the joint contribution rate and change it as necessary in order to try to reproduce the defined benefit at retirement that would have been provided under the existing Scheme if it had continued.

Option 2 is a cash balance scheme which provides a guaranteed minimum deferred cash sum at retirement based on the amount of Company and member contributions paid. This is then accumulated on an annual basis in line with investment returns generated by the scheme in the period up to retirement, and subject to a minimum accumulation rate of 0% in any year.

(i) Set out, for each option, the features of the design that will need to be determined by the Company before the scheme can be implemented. [12]

(ii) Discuss the issues that an employee should consider when deciding which of the two arrangements to join. [8]

[Total 20]

7 A defined benefit pension scheme ("the Scheme"), which is closed to accrual, is undergoing a formal actuarial valuation as at 31 December 2014. The investment strategy is to invest 80% in return-seeking assets (such as equities and property) and 20% in matching assets (such as government bonds).

The Scheme's trustee ("the trustee") has just received the covenant assessment report for the sponsoring company ("the Company"), which has ranked the covenant as broadly satisfactory. However, the report shows that there are particular concerns about the amount of debt on the Company's balance sheet, which amounts to £300m of secured loans. The report also notes that the market capitalisation of the Company at the valuation date was £200m, and that the pre-tax operating profits for the preceding year were £35m.

On the valuation basis that the Scheme's actuary has proposed, the value of the Scheme's liabilities is £400m on an ongoing basis and £600m on a solvency basis. The market value of the assets is £400m.

The Company is proposing that it only pays the Scheme's expenses (i.e. the costs of administration, professional fees and regulatory charges) until the date of the next valuation, which is due in three years' time. In addition, the Company is proposing that a financial management plan is agreed between the Company and the trustee setting out actions which would be taken if there were a material deterioration in the financial position of the Scheme before the next valuation is due.

(i) Discuss the risks that could impact the financial position of the Scheme, including risks relating to the Scheme's experience and the sponsor covenant, were they to arise over the period until the next valuation is due. [14]

(ii) Discuss the monitoring arrangements that the trustee could put in place to ensure that it has appropriate information in relation to the financial position of the Scheme, including the sponsor covenant, over the period until the next valuation is due. [7]

(iii) Discuss the actions that might be included in the financial management plan. [7]

(iv) Discuss the suitability of insurance as a means of mitigating each of the risks that you have identified in part (i). [7]
[Total 35]

END OF PAPER