INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

23 September 2021 (am)

Subject SA4 – Pensions and Other Benefits

Specialist Advanced

Time allowed: Three hours and twenty minutes

In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator.

If you encounter any issues during the examination please contact the Assessment Team on T. 0044 (0) 1865 268 873.

1 A funding valuation has recently been completed for a final salary defined benefit pension scheme. The scheme has all categories of members: actives, deferreds and pensioners. The results, on several bases, are shown below:

	Funding (£m)	*Self-sufficiency (£m)*	*Buyout (£m)*
Liabilities	660	800	900
Assets	720	720	720
Surplus/(deficit)	60	(80)	(180)
Funding level	109%	90%	80%

(i) Describe what is meant by a self-sufficiency basis. [2]

(ii) Set out the likely reasons for the differences between results on the three bases shown above. [6]

As part of the funding valuation, the scheme's trustees secured an independent review of the sponsor's covenant. This concluded that the overall covenant was weak, although the balance sheet was strong and there is a large cash holding.

The scheme currently invests in 75% return seeking assets and 25% Liability Driven Investments (LDI). The LDI portfolio hedges 75% of the interest and 70% of the inflation risk.

The sponsor has approached the trustees expressing the desire to remove the likelihood of any further funding commitment to the scheme in the future. They have asked the trustees to consider the possibility of securing the scheme's liabilities with an external provider, on the following basis:

- The scheme will be moved into a pooled arrangement, which will be funded at 110% of the self-sufficiency level.
- On entry, schemes have to provide 100% of the self-sufficiency funding liability.
- The external providers add further capital to bring the funding level to 110%.
- Members could receive defined contribution top ups if experience is good.
- The long-term aim is to run off benefits.
- All links to the sponsor are broken.

The trustees have asked for a report to be prepared outlining the advantages and disadvantages of:

- securing liabilities with the external provider.
- continuing with the current strategy.
- moving to a self-sufficiency strategy.
- buying-out.

(iii) Set out the main points that should be included in the report, including any important issues for other stakeholders. [18]

(iv) Explain how the key findings of the report might have differed had the sponsor's covenant been rated as strong. [3]

The sponsor and trustees have agreed to move to a self-sufficiency strategy in the short term.

The sponsor wants to move out of the return seeking assets and into matching assets, but keep the LDI investments, as they have been particularly successful in the past.

(v) Discuss briefly the suitability of LDI investments as part of a self-sufficiency strategy. [3]

[Total 32]

2 (i) List the main objectives of accounting standards in relation to pension schemes. [3]

A company based in a developed country produces annual reports on its defined benefit pension scheme liabilities in accordance with the IFRS accounting standard (IAS19).

The balance sheet as at 1 January 2020, shown in local currency, was:

	Millions
Active members	500
Deferred members	700
Pensioners in payment	800
Total	**2,000**
Assets	2,100
Surplus	**100**

The cost of accrual for 2020 was estimated to be 80 million, 25% of total pensionable salary. Active members contribute at a rate of 5% of pensionable salary.

You have been asked to estimate the balance sheet as at 1 January 2021, based on financial conditions as at 1 September 2020. Yields as at 1 January 2020 and 1 September 2020 are:

	1 January 2020 (% p.a.)	*1 September 2020 (% p.a.)*
Corporate bond yield	2.76	1.69
20-year government bond yield	1.82	0.97
Index-linked government bond yield	–1.53	–2.17

Deferred pension revaluation is in line with the inflation assumption.

Pensionable salaries are assumed to increase annually in line with inflation plus 1%.

Pensions do not increase in payment.

Assets as at 1 September 2020 were 2,800 million.

(ii) Prepare an estimated balance sheet as at 1 January 2021, stating any assumptions you make. [10]

Following the year end of 31 December 2020, you have been asked to complete the year-end disclosures.

During the year, the scheme ceased accrual for active members on 1 October 2020, and the link to pensionable salaries was broken. A buy-out of the scheme's pensioners was completed on the same date. The price paid for the buy-out was 900 million.

(iii) Describe the terms 'settlement' and 'curtailment' in relation to accounting disclosures. [3]

Yields as at 1 October 2020 and 1 January 2021 were:

	1 October 2020 (% p.a.)	*1 January 2021 (% p.a.)*
Corporate bond yield	1.90	2.20
20-year government bond yield	1.06	1.40
Index-linked government bond yield	–2.10	–1.90

The balance sheet at 1 January 2021 was:

	Millions
Deferred members	1,360
Pensioners in payment	20
Total	**1,380**
Assets	1,650
Surplus	**270**

(iv) Produce the pension cost for 2020 as at 1 January 2021. You can assume the total value of items that would be included in 'Other Comprehensive Income' is zero. [14]

(v) Explain the difference it would make to the result in part (iv) if:

(a) the buy-out of pensioner benefits had been a buy-in.

(b) the active members' benefits had retained a salary link when accrual ceased on 1 October 2020.

[3]
[Total 33]

3 (i) Describe the term ‘incentive exercise’ in relation to a defined benefit pension scheme. [2]

(ii) List FOUR types of incentive exercise, outlining for each the key advantages and disadvantages from the viewpoint of a scheme member. [8]

A firm of consultants provides actuarial and administration services to a number of occupational pension schemes. The firm has been contacted by an 82-year-old pensioner member of a final salary pension scheme for which the firm provides actuarial and administration services.

The member has received two letters about their pension.

The first letter is from the chair of trustees of the scheme, offering the member a cash sum of £10,000 in respect of full and final settlement of all their benefits in the scheme.

The second letter is from the chief executive officer of the sponsor of the scheme, who happens to be the same person that sent the first letter. This letter offers an additional cash sum of £2,000 if the member accepts the trustees’ offer before the end of the following month.

The member has asked the administration team for advice on what to do. The administration team were not involved in providing any figures.

(iii) Suggest reasons why:

(a) the trustees offered a precise amount of £10,000.

(b) the sponsor has put a time limit on their offer of £2,000.

[3]

The administration team is concerned about the possibility that the member has been placed in a position with insufficient understanding and has asked the scheme’s actuary to write to the trustees about the offers.

(iv) Set out the main points the actuary would make in the letter. [12]

Following the actuary’s letter, the trustees confirmed that the offer has only been made to this one member. They have decided they wish to make full commutation available to all members of the scheme who are eligible, both now and in the future.

The trustees have asked the actuary to provide a short report advising them on the best way to provide this option.

(v) Outline the points the actuary would make in this report. [10]
[Total 35]

END OF PAPER