

INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

20 April 2022 (am)

Subject SA2 – Life Insurance 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 proprietary life insurance company writes only term assurance business.

The company recently considered offering a group life product but decided against proceeding with this option.

- (i) Suggest reasons why the company might have reached the decision **NOT** to enter the group life market. [6]

In the last year, new term assurance business written by the company has increased significantly compared to the previous year.

- (ii) Suggest possible reasons for this increase. [8]

The company has just completed an assessment of its economic capital requirements.

- (iii) Discuss why the company may hold more capital than that indicated by its assessment of its economic capital requirements. [6]

The excess of assets over best estimate liabilities at the end of the current year is much higher than it was projected to be.

- (iv) Suggest possible reasons for this result. [7]

The company operates in a territory subject to the Solvency II regime.

- (v) Describe the main risks that would impact the level of the company's Solvency Capital Requirement. [7]

[Total 34]

2 A life insurance company has completed its Market Consistent Embedded Value (MCEV) results and analysis of change.

- (i) Describe the standard components in the analysis of change that would relate to investment return. [5]

- (ii) Suggest reasons why the company may not show, in its published results, a split by asset type for the investment return in the analysis of MCEV. [8]

The company has identified a material positive investment variance on its without-profits immediate annuity business in the latest annual analysis of MCEV.

- (iii) Discuss the actions the company may take as a result of this positive investment variance. [8]

The company is regulated under Solvency II. Following internal discussion, the company is proposing to cease producing results on an MCEV basis.

- (iv) Discuss the implications, both internal and external, of the company's proposal. [10]

[Total 31]

3 A life insurance company, Company A, has sold income protection, individual term assurance, unit-linked individual pensions and without-profits immediate annuities for a number of years. Another life insurance company, Company B, offers unemployment cover. Company A has entered into an agreement with Company B to add unemployment cover as a rider to their income protection product. Under this arrangement, the unemployment rider will be branded and sold by Company A, but Company B provides the underlying product.

(i) Outline the commercial aspects of this arrangement that would need to be agreed. [3]

(ii) Describe the risks to Company A arising from this arrangement. [6]

Company A is proposing to launch an equity release product.

(iii) Suggest possible reasons for Company A's proposal. [6]

(iv) Outline possible sources Company A could use to base the best estimate assumptions for demographic and expense assumptions on for this new equity release product. [5]

Company A developed a spreadsheet model to estimate profits expected from the product over the next 5 years to include in a business case. It has been suggested that this spreadsheet could also be used for the pricing of the product once it is launched.

(v) Suggest possible reasons why it may **NOT** be appropriate to use this model for pricing once the product goes live. [4]

The company has decided to go ahead with the new equity release product and has developed a new pricing model for the product. However, it has yet to decide whether to price the product on a standalone or a marginal basis.

(vi) Discuss the relative merits of using a marginal basis for pricing this product. [6]

Company A is considering adding a return on capital type metric as a measure for use in its business case process, when deciding which new projects it should invest money in.

(vii) Discuss the key considerations the company would make when deciding how to implement this metric. [5]

[Total 35]

END OF PAPER