

EXAMINATION

November 2013 (am)

Subject F104 — Pension and Other Benefits Fellowship Principles

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Use the instructions and password provided at the examination center to log in.*
2. *Submit your answers in Word format only using the template provided.*
3. *Save your work regularly throughout the examination on the supplied computers' hard drive.*
4. *You have 15 minutes at 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.*
5. *You must not start typing your answers until instructed to do so by the supervisor.*
6. *Mark allocations are shown in brackets on exam papers.*
7. *Attempt all six (6) questions, beginning your answer to each question on a new page.*
8. *Candidates should show calculations where this is appropriate.*

Note: The Actuarial Society of South Africa will not be held responsible for loss of data where candidates have not followed instructions as set out above.

AT THE END OF THE EXAMINATION

Save your answers on the hard drive AND hand in this question paper.

<p><i>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</i></p>
--

QUESTION 1

- i. What are the common aims that most accounting standards are attempting to achieve when providing disclosure to owners of capital through a company's formal accounts? [2]
- ii. In order to achieve these aims, what possible disclosure requirements may be needed? [4]

[Total 6]

QUESTION 2

You have been asked by the trustees of a defined benefit fund to assist with the introduction of a commutation option on retirement for members.

- i) Describe this option and state the factors to consider in setting the terms for the option. [3]
- ii) The fund currently has a spouse's benefit. What is the potential problem that commutation poses for a member's partner? How can this be avoided? [1]
- iii) One of the trustees has suggested that a single fixed commutation factor be used for all members retiring from the fund. What should the trustees consider when deciding whether to follow this approach? [8]

[Total 12]

QUESTION 3

You are the actuary to a defined benefit fund sponsored by a large retailer. The financial director of the retailer has approached you about introducing a new defined contribution fund for members instead of the defined benefit arrangement.

The defined benefit fund currently has the following assets and liabilities, valued on a best estimate basis:

Active members	R200 million
Pensioners	R 90 million
Deferred pensioners	R 54 million
Total market value of assets	R 330 million

Active member liabilities are valued using the projected unit method. Pensions are currently paid from the fund.

PLEASE TURN OVER

The defined benefit fund does not offer a cash benefit on withdrawal. Members who leave the employment of the company are required to leave their accrued pensions in the fund, and these become payable at the fund's normal retirement age of 60.

- i) What are the scheme design considerations you would advise your client to consider when setting up the defined contribution arrangement? [16]
- ii) How would you go about setting the total contribution rate to be paid towards retirement in a new defined contribution fund? [4]
- iii) The financial director would prefer to convert the existing defined benefit fund into a defined contribution fund. Outline the major factors that would need to be considered during this conversion process. [10]
- iv) The chief executive office (CEO) of the retailer would prefer to discontinue the defined benefit fund and set up a new defined contribution fund as she hopes this will address the problem of the deficit in the defined benefit fund. Briefly outline your response to the CEO, highlighting the principles to be taken into consideration when determining discontinuance terms. [5½]
- v) The trustees of this fund are concerned about the strength of the sponsor covenant and would like this assessed. List the credit assessment techniques that could be used. [3½]

[Total 39]

QUESTION 4

The valuation of a small defined benefit fund has just been completed. At this valuation date, the market value of assets is R56 400 000. At the previous valuation, exactly a year earlier, the market value of assets was R34 500 000.

The expected rate of return on the assets allowed for in the basis of both valuations is 8.30% per annum. Cash flows for the year were net positive into the fund and totalled R14 200 000.

- i) Calculate the surplus that has accrued in the fund over the year as a result of investment returns being greater than what was expected. [3]
- ii) Explain the factors that affect how this surplus might be used. [9]

[Total 12]

PLEASE TURN OVER

QUESTION 5

Express the attained age standard contribution rate in terms of the projected unit standard contribution at any age x . What can be deduced from this?

[Total 5]

QUESTION 6

A large, mature defined benefit pension fund currently pays pensions directly from the fund. The trustees have asked for your advice on the management of the assets and liabilities in respect of the pensioners.

The most recent valuation of the pensioner liabilities, conducted as at 31 March 2013, showed the pensioner liability totalled R750 million. As at the previous valuation, conducted a year earlier, the total pensioner liability was R690 million.

- i) The trustees are concerned about the change in the value of the pensioner liability over the year. What are the possible reasons for the increase in the liability? [4]
- ii) The total liabilities of the fund are R 1 360 million as at 31 March 2013, including both the active member and the pensioner liabilities. The fund has total assets of R 1 540 million.

The trustees are considering managing the assets in respect of the pensioners separately from those of the active members.

- a) What risks would the trustees potentially be able to mitigate through this proposed separation of assets? [4]
- b) What do the trustees need to consider in implementing this proposal? Your response should include, but need not be limited to, issues related to investment strategy and the practical implementation of the proposal. [12]
- iii) In assisting the trustees with their decision, you have suggested that an asset liability modelling exercise be conducted. Briefly describe the outputs from the process that the trustees can expect. [6]

[Total 26]

END OF PAPER