EXAMINATIONS

14 April 2000 (am)

Subject 402 — UK Fellowship Life Insurance

Paper One

**You must answer this subject only,
you may not attempt another subject in the 400 series.**

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *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.*

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

3. *Write your surname in full, the initials of your other names and your Candidate's Number on the front of the answer booklet.*

4. *Mark allocations are shown in brackets.*

5. *Attempt all 7 questions, beginning your answer to each question on a separate sheet.*

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet and this question paper.

In addition to this paper you should have available Actuarial Tables and an electronic calculator.

1 List the items which should normally be included in a Financial Condition Report according to GN2. [5]

2 Describe briefly the principal features of the Modified Statutory Basis for reporting profits on long term insurance business, and the difference to the statutory basis. [7]

3 A life insurance company sells group life contracts and group long term sickness contracts. The company is setting the supervisory valuation reserves for these classes of business.

(i) Describe the four parts that make up the reserve for a group life contract. [4]

(ii) Describe how the reserving for a group sickness contract differs from that for the group life contract. [4]
[Total 8]

4 A life insurance company's share of the market for term insurance contracts is declining.

(i) Describe the possible actions open to the company to reverse this position.
[4]

(ii) Discuss the data and other key points the company would need to consider before implementing these actions. [5]
[Total 9]

5 A life insurance company writes unitised with profits contracts designed to repay the capital sum under a domestic mortgage.

(i) State the general principles that the company should follow in determining cash surrender values for with profits contracts. [5]

(ii) Describe how these principles should be put into practice for unitised with profits contracts. [11]

(iii) A client with such a policy, which has been in force for six years out of an original term of 25 years, is moving house and effecting a new 25 year mortgage without altering the amount borrowed.

Describe how the new premium on the existing policy might be calculated if the client wishes to pay the lowest premium possible, and what considerations the company may take into account in making the change. Formulae and bases are not required. [6]
[Total 22]

6 (i) Describe the principles involved in the valuation of unit-linked business for the purposes of supervisory returns. A description of the discounted cash flows is not required. [11]

(ii) A UK life insurance company writes regular premium unit-linked endowment assurance business. The contract has the following features:

- Death and maturity benefits are 101% of the bid value of units.
- Surrender benefits are 100% of the bid value of units.

State, with reasons, a suitable basis for calculating the non-unit reserve for supervisory purposes. [6]

(iii) Another UK life insurance company writes only single premium unit-linked investment bonds. A typical policy has a current unit value of £10,000. The death benefits are 101% of the bid value of units, and the surrender benefits are 100% of the bid value of units, but a surrender penalty of 5% of the fund applies during the first five years. The annual management charge is 1% of the fund.

Explain why the non-unit reserve for a typical policy is likely to be zero. [5]

[Total 22]

7 A mutual life insurance company transacts unit-linked and with profits endowment assurances and without profits pension immediate annuities. As part of its financial management, it calculates its estate each year. This is defined as the excess of the with profits assets over the aggregate with profits asset shares.

The with profits assets are calculated as the company's total net assets, as shown in the Supervisory Returns, less the statutory reserves held in respect of the unit-linked and without profits contracts. The aggregate asset shares represents the total of the individual policy asset shares, calculated by accumulating the premiums paid, less an allowance for expenses and the cost of mortality (equal to the loadings in the premium basis), at the rates of return earned on the assets deemed to support the with profits business.

(i) Discuss the factors that cause changes in the size of the estate over a period of time. [10]

(ii) Explain how the estate might become negative and discuss the implications such an occurrence would have for the company. [12]

(iii) Discuss the appropriateness of using part of the estate to subsidise the terms on which new business is written, assuming the estate is positive. [5]

You should ignore the effects of taxation. [Total 27]