EXAMINATION

24 October 2011

Subject A302
Communications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details at the beginning of each question.*
2. *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.*
3. *You must not start typing your answers until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt both questions, beginning your answer to each question on a new page*
6. *Candidates should show calculations where this is appropriate.*
7. *Candidates are required to do a word count.*

AT THE END OF THE EXAMINATION

Save your answers with the password provided and hand in your question paper.

In addition to this paper you should have available the 2002 edition of the Formulae

QUESTION 1

You work for a life insurance company that has recently launched a regular premium unit-linked endowment assurance. The amount payable on surrender is equal to the bid value of the units allocated to the policy less a surrender penalty.

The Head of Training has asked one of your colleagues, a junior student, to prepare a short script that will assist the company's call centre agents to deal with clients who would like clarity on the surrender penalty.

The junior student's first draft is shown below.

Profit testing and surrender scales

The profit testing method is used first to set the charges under the contract, ignoring the withdrawal decrement. The process is then repeated for a policy which is assumed to be surrendered at various points in the past.

At the end point of each of these projections, a surrender penalty that produces the same target profit as the profit test with no withdrawals is determined.

This process results in the profit generated by the product being largely independent of the persistency experienced.

The entire procedure is repeated using tranches of policies of different ages, premium sizes and terms to obtain a comprehensive charging structure. The results are then subjected to sensitivity tests.
The surrender penalties are then converted into a simplified scale that can be operated in practice.

However, the surrender values so derived are likely to prove uncompetitive, particularly at shorter durations. The company may therefore have to accept lower profit levels from policies that are surrendered prematurely. In this case, the surrender penalty scale would be adjusted to produce more acceptable surrender values.

The underlying objective is to produce projected surrender and maturity values which are acceptable to the Sales and Marketing area, while maintaining the profitability of the product at a financially acceptable level.

PLEASE TURN OVER

You have started to redraft the above written material into a suitable oral script. Your redraft currently reads as follows:

AGENT: *Good afternoon, XYZ Life Insurance, Nazleen speaking. How may I help you?*

CLIENT: *I am considering purchasing a regular premium unit-linked endowment assurance policy. My broker sent me some information about the product. A surrender penalty was mentioned in the documentation. What is it and how is it calculated?*

AGENT: *The unit-linked endowment that you are considering buying does have a surrender penalty. Let me start by making sure we both understand how your policy would work. The premium you pay XYZ Life is used to buy units in an investment fund. When your policy matures, we pay you out the value of the units you have accumulated. Is that your understanding?*

CLIENT: *Yes*

Body of the script, allowing for brief client interaction

CLIENT: *Yes, it has. Thank you.*

AGENT: *Great! Please call again if you have any further questions. Good-bye.*

Complete the script in 450 to 550 words, giving a clarifying explanation of surrender penalties.

Notes:

- You need not mention how the adjusted surrender penalty (after factoring competitiveness) would be fed back into the profit test and the subsequent adjustment of other charges in order to ensure that the target profit is achieved.
- You may assume that the client is comfortable with the following terms: units, investment fund and maturity.
- Sizeable commission and administration expenses are incurred at the inception date of an endowment assurance policy.
- Mirror the format displayed in the draft script in your solution.
- Start your draft after the client confirms that he understands how the product works. End your draft just before the client thanks the agent.
- Word count includes "AGENT:" and "CLIENT:" labels.
- Indicate word count at the bottom of your script.

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PLEASE TURN OVER

QUESTION 2

You are a marketing actuary with LifeCo, a large life insurance company. LifeCo has a large portfolio of post-retirement product options that includes guaranteed annuities.

Gary Turnbull is one of your guaranteed annuity clients. He purchased the product five years ago and receives a fixed monthly payment of R7 700. He recently requested a transfer value quotation. He has written a letter to you to complain about the value provided. He feels that the quoted amount of R940 000 is hopelessly too low and wants it to be revised upwards. His proposed method for calculating his transfer value is as follows:

Original purchase price	R1 022 000
Plus interest (using the five-year average annual JSE return of 12%), calculated as 60% of R 1022 000	R 613 200
Less the 60 payments received so far	R 462 000
Resultant transfer value	R1 173 200

Write a reply to the client in 400 to 500 words, explaining the method used by your company and reconciling the value he provided with that provided by LifeCo. Your explanation should cover the reason why bonds are the preferred investment vehicle for reserves held in respect of this product.

Notes:

1. LifeCo sets the transfer value equal to the net premium reserve.
2. The assumptions underlying the net premium reserve calculation are as follows:
   a. An interest rate of 8% per annum is assumed. This is the long-term average return expected to be earned on the portfolio of bonds backing the product.
   b. Payment will be made for another 20 years precisely.
3. Equities are viewed as too volatile an investment for a guaranteed annuity portfolio.
4. A portfolio of bonds is held by LifeCo whose income stream matches expected annuity payments.
5. The original purchase price was calculated assuming that payments would be made for 25 years precisely.
6. Profit and expenses can be ignored.
7. Values must be rounded to the nearest R100 to avoid spurious accuracy.
8. You may assume that the client is familiar with the terms “shares” and “bonds”.
9. Create a client address where necessary in the letter.
10. The word count does not include addresses, salutation and close. Indicate word count on the paper.

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