

EXAMINATION

21 May 2025 (am)

Subject F204 — Retirement and Related Benefits Fellowship Applications

Examination time: Three hours and fifteen minutes (includes reading time)

Upload time: Five minutes

[Total time on examination countdown clock: Three hours and twenty minutes]

Total marks: 100

INSTRUCTIONS TO THE CANDIDATE

Failure to adhere to any of these instructions could incur examination sanctions including disqualification from the examination.

1. The question paper is only available on the ASSA Exam Platform as a PDF download and may not be printed. Copy/paste of questions or parts thereof is allowed from the question paper to your Word answer document only.
2. Download the Word answer document template from the ASSA Exam Platform. Save this Word answer document on your desktop using your **full Candidate Number**, which starts with “F204-exa-2025-...”, as filename. **Do not name your answer script with your name or member number.**
3. You are required to submit your answers in Word format ONLY using this document. No answers in any other format (e.g. handwritten) will be accepted. Save work regularly.
4. Ensure that your **full Candidate Number** appears in the “header” of your Word answer document. [Double-click on the header at the top of the Word document, input your Candidate Number only in the header, then press “Esc” to close the header.] **Do not use your name or member number anywhere in your Word answer document.**
5. You may not access any file from your computer, use any other computer software (e.g., Email or Excel), or open any other browser, collaboration tools or AI tools (e.g. Copilot, ChatGPT etc.) during the examination. Nor may you use Grammarly, Grammarly Premium or similar add-ins. Microsoft Word spellcheck is allowed.
6. You are not permitted to bring any other material into the examination (e.g. a Formulae and Tables book). Any such information/material that may be required will be provided to you in the examination.
7. You are strongly encouraged to use the first 15 minutes as reading time only, however, you may start answering the paper whenever you are ready.

8. Mark allocations are shown in brackets.
9. Attempt all questions, starting each on a new page (as provided for in the Word answer document).
10. Show calculations where appropriate. You may not use other materials except blank paper for calculations. You may use a calculator from the ASSA-approved list only.
11. At the end of the three hours and 15 minutes examination time, you must stop writing and start uploading your Word answer document. **You may NOT continue to write during the five minutes upload time.**
12. Upload your Word answer document only onto the ASSA Exam Platform. Once you have uploaded your document, you must click on **Finish Attempt** to save your document. You will still be allowed to go back and check that you have uploaded the correct version of your answer script (**Review Attempt**) if you have time. Remember that you may not type answers in the last 5 minutes of upload time.
13. Once you are satisfied with your uploaded document, click **Finish Attempt** and **Finish all and Submit**. Once you have submitted, you will not be able to make any changes.
14. **You must submit your Word answer document BEFORE the time on your examination countdown clock runs out.**

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. The onus remains on you to read and implement all examination instructions.

END OF INSTRUCTIONS

QUESTION 1

BuildCorp currently offers a defined contribution (DC) arrangement with a normal retirement age of 65. The current membership of the fund consists of male construction workers. To maintain consistent benefit levels, until 31 December 2019, the fund provided death in service benefits in line with the benefits that were payable under its previous defined benefit fund. The defined benefit fund was designed to provide a pension of 80% of final salary after 40 years' service.

The death in service benefit structure consisted of the following two components:

Lump sum	2x pensionable salary
Spouse's pension	50% of the member's prospective pension based on service to normal retirement age (maximum of 40 years)

Pensions can be appropriately valued assuming AM92 mortality and a net 4% per annum discount rate, where both males and females are valued using the standard male rates. Most members are married, and spouses are assumed to be the same age as members.

The single life annuity factors using the relevant AM92 table at various ages are as follows:

Age	Annuity factor
25	22.52
30	21.834
45	18.823
50	17.444

With effect from 1 January 2020, the death benefit was changed to the following two components:

Lump sum	6x pensionable salary
Plus	The member's share in the DC fund

- i. Discuss the advantages and disadvantages of the benefit structure that was in place prior to 1 January 2020. [5]

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On 1 January 2020, Joe Nkosi was aged 25 years with 5 years' service. His salary at 1 January 2020 was R50 000 per annum and he had a member share of R22 000.

Thando Mnisi was aged 45 on 1 January 2020, which was the average age of BuildCorp's employees at that date. At 1 January 2020, he had been with the company for 15 years, his salary was R200 000 per annum and he had a member share of R400 000.

Both members were married as of 1 January 2020.

- ii.
- a. Determine the death in service benefits for the above two individuals under both the new and previous benefit structures, assuming they had died at the point at which the benefit structure was changed, i.e. on 1 January 2020. [7]
 - b. Compare your answers in ii.a.) in respect of each individual as well as between the two individuals. [4]

Five years later, on 1 January 2025, the same individuals received new benefit statements. Mr. Nkosi's salary has increased to R110 000 per annum and his member share to R100 000 while Mr. Mnisi's salary has increased to R265 000 and his member share to R500 000.

Both members are still married as of 1 January 2025.

- iii. Repeat the calculations in ii.a. at the later date and explain the changes in the results of this calculation compared to the previous calculation, in relation to each benefit structure. [7]

Mr. Nkosi has complained that he believes the new death in service benefit structure is unfair and prejudices younger married members when compared to the previous benefit structure.

- iv. Evaluate the validity of this complaint. [5]
- v. Propose an alternative benefit structure that would address the concerns raised. [3]

[Total 31]

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QUESTION 2

Fund Y is a defined contribution pension fund with R20bn in assets. The Fund has 20 000 members.

Fund Y's default investment strategy is a typical balanced portfolio (the Balanced Portfolio) up until age 60 years, with a 2-year phased transition to a more stable portfolio (the Stable Portfolio) by age 62 years which then applies up to the normal retirement age of 65 years. Members can opt out of the default strategy by choosing any other investment portfolio offered by Fund Y.

The default investment strategy is designed to align with Fund Y's annuity strategy, which is a with-profit annuity secured from an insurer. In addition to the Balanced and Stable portfolios, Fund Y also offers a portfolio investing primarily in inflation linked bonds (the ILB Portfolio) for those members targeting a guaranteed annuity with inflationary increases at retirement.

Historically, 80% of retiring members take a living annuity at retirement, 15% take a with-profit annuity and 5% of members take a guaranteed annuity with inflationary increases.

- i. a. Explain the 3 types of annuities. [9]
- b. Assess the risks they each pose to a retiree. [6]

Member X has followed the default investment strategy and has been a member of Fund Y for 34 years. Member X is 3 months away from retirement at age 65.

- ii. Describe what information Fund Y should have provided to Member X over the years of membership. [6]
- iii. Discuss the issues Member X should be considering in preparation for retirement. [4]

Member X's financial advisor has suggested to him that a living annuity is a better product as under both the with-profit and guaranteed annuity with inflationary increases, the insurance company takes his money when he dies. Member X has asked you if this is true.

- iv. Outline the points you would make in responding to Member X. [6]

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Another Trustee has pointed out that very few members opt for a guaranteed annuity with inflationary increases at retirement. His view is that this is because pricing for these annuities is volatile and often presents poor value for money compared to the other annuity options.

- v. Outline the points you would make to the trustee that cover pricing and other barriers to take up. [4]

Yet another Trustee has asked you about a hybrid annuity product that he has read about that starts off as a normal living annuity with the option to transfer in stages to a with-profit annuity.

- vi. Explain the workings of such a hybrid annuity including its advantages and disadvantages. [7]

[Total 42]

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QUESTION 3

You are attending the investment strategy workshop for a large defined contribution retirement fund with segregated assets. One of the trustees has noted that recent investment conferences seem to have placed a significant focus on socially responsible investments.

- i. Explain socially responsible investing and its role in the investment strategy for a South African retirement fund. [8]

One of the member Trustees has noted that the South African retirement industry underwent a significant change with the introduction of the 2-component (“2-pot”) legislation on 1 September 2024 and has suggested that the savings pot should always be available for short term needs and its investment strategy should therefore have a short-term focus.

The Chairperson of the Board, who is also the company financial director, believes that the changes in legislation were significant enough to require the Fund to review the overall investment strategy.

The Chairperson has asked that you consider how these changes in legislation may impact on the design of a fund’s underlying investment strategy from a liquidity point of view.

- ii. Draft the points that you would make in response to the trustee.
Hint: Summarise the liquidity requirements pre and post 2024 and how a fund may manage them, including during the transition period. [13]

The member trustee has suggested that the only change needed is to move all the existing savings component assets and all future savings component contributions into the Fund’s interest-bearing bank account that can be accessed when needed.

- iii. Evaluate the advantages and disadvantages of this approach. [6]

[Total 27]

[Grand Total 100]

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END OF EXAMINATION