

Actuarial Society of South Africa

EXAMINATION

19 October 2021

Subject F204 – Retirement and Related Benefits Specialist Applications

Time allowed: Three hours and fifteen minutes, plus an additional five minutes to allow for uploading your file in the ASSA Exam Platform

Total marks: 100

INSTRUCTIONS TO THE CANDIDATE

1. Ensure that you are logged in and authenticated through Examiity before you attempt the examination.
2. Ensure that you have your candidate number handy to input as part of the examination.
3. Questions are only available in the ASSA Exam Platform and may not be printed. Copy/paste of questions or parts thereof is only allowed between the Exam Platform and the Word answer document.
4. You will be provided with a Word template to access and use to complete your questions. You may only use the file provided to you. No other file from your PC may be accessed.
5. Ensure that your Candidate number appears in the Header of your Word template. [Select “Insert”, then “Header”, input your candidate number on blank header template and select “Close Header”]. **DO NOT USE YOUR NAME OR MEMBER NUMBER ON YOUR ANSWER SCRIPT.**
6. You may not use any other computer program (e.g. Email or Excel), nor open any other browser during the examination.
7. You may not make use of a Formulae and Tables book during the examination. Any such information that may be required will be provided to you within the examination.
8. You are strongly encouraged to use the first 15 minutes as reading time only, however, you may commence answering the paper whenever you are ready.
9. Mark allocations are shown in brackets.
10. Attempt all questions.
11. Show calculations where this is appropriate. You may use blank paper to carry out rough work calculations. You may use a calculator from the approved list only.
12. Upload your answer file into the ASSA Exam Platform **BEFORE** the examination time expires.

13. *Once you have added your file, you MUST click on FINISH ATTEMPT to save your file. You will still be allowed to go back and make changes (REVIEW ATTEMPT) if you have time.*
14. *Once you are satisfied with your uploaded file, click **FINISH ATTEMPT and FINISH ALL AND SUBMIT** whereafter you will not be able to make more changes. Take this into account when finishing early - once you have submitted, you will not be able to make any more changes to your answers.*
15. *It is the candidate's responsibility to ensure that all work is submitted BEFORE the end of the examination time. Take this into account when planning your review and submission. There will be no time announcements.*
16. *An option to opt out of the exam will become available 1 hour after the official exam start time. If you select the Opt-Out option, you agree and understand that your entire script/answers will be deleted and cannot be retrieved at a later stage and that your script or part thereof will not be put forward for marking.*

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.

END OF INSTRUCTIONS

QUESTION 1

A new company in the mining sector has commenced operating in South Africa. It has requested your assistance in designing a retirement benefit strategy for its employees.

One of the employee unions is insisting that the company provides a defined contribution provident fund for all employees. Before making its decision, the company would like to understand the different options that are available in South Africa.

- i. Outline the options available to the company, including the nature of the retirement benefits that could be provided, and the options for the retirement vehicles that could be used.

[15]

The Financial Director of the company has noted that when designing the fund, it is important to understand the conditions for tax approval and the taxation of the various components of any arrangement as they apply in South Africa.

- ii. Outline the conditions for tax approval and the tax treatment of contributions, withdrawal and retirement benefits and investments in respect of South African retirement arrangements.

[10]

- iii. Briefly explain the changes in taxation legislation over the last few years and the resulting additional considerations for the company.

[3]

As it is a new business, the company does not wish to take on any additional financial risk. The company is also committed to building good relationships with the employee unions. For these reasons, it has chosen to establish a defined contribution fund.

The company would like to understand exactly how this fund would work, particularly the factors that affect members' benefits.

- iv. Briefly explain the factors that affect members' benefits and how these could be addressed by the design of the fund to maximise members' benefits.

[6]

[Total 34]

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QUESTION 2

A South African company has a scheme that subsidises 50% of the cost of post-retirement medical aid contributions of current and former employees (pensioners). The subsidy is payable for life, and commences on retirement between the ages of 55 years and 65 years.

The 50% subsidy also applies to the spouse's contribution and continues if the retired employee pre-deceases the spouse. The subsidy is based on whatever medical aid benefit option the retired employee (or spouse) elects under the company's medical aid scheme. No benefit is payable on resignation. On death before retirement the subsidy will apply to the spouse's contribution, with the benefit commencing on the death of the employee and being payable for the life of the spouse.

The company has recently appointed a new Chief Financial Officer (CFO) who is unfamiliar with post-retirement medical aid subsidy schemes. The CFO has contacted you, a consulting actuary with no prior experience with the company, to assist him in understanding the implications of the scheme.

The previous IAS19 valuation of the scheme liabilities was carried out as at 30 April 2020. The results and financial assumptions are summarised below.

Liability / Asset Recognised in Statement of Financial Position at:	30 April 2020
Defined Benefit Obligation:	R480.5m
Pensioners	R260.1m
Employees	R220.4m
Assets at Fair Value	R0
Asset / (Liability) Recognised	(R480.5m)
Assumptions:	
Discount Rate	10.7%
Medical aid contribution increase rate	8.0%
Inflation	6.0%
Projected Components of the Defined Benefit Cost for period ending:	30 April 2021
Projected Service Cost	R30.6m
Estimated medical subsidy payments to continuation members and retirees	R27.0m

The CFO has requested you to provide an estimate of the liability as at 30 April 2021. Nominal and inflation linked government bond yields have increased by 2.0% for the year to 30 April 2021. The medical aid contribution increase was 5.0% in the last year.

- i. Estimate the liability as at 30 April 2021. Show your workings and state any assumptions that you make.

[8]

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- ii. Using the results in i. above, estimate the charges to profit or loss and other comprehensive income for the year ending 30 April 2021.

[3]

An investment consultant advised the CFO that the Company should invest in an external investment portfolio to pre-fund the post-retirement medical aid liability. The investment consultant advised that the investment portfolio would be constructed in such a way as to be a good match for the current liability, but also take into account future increases and retirements. The CFO has asked you for your views on this proposal.

- iii. Discuss the points you would make in reply to the CFO.

[7]

The CFO has also asked you to set out ways in which the post-retirement medical aid scheme liability can be contained or made more predictable in future.

- iv. Set out five alternatives and briefly describe how each contains or makes the future liability more predictable.

[15]

The Company was sent a listing of the scheme liability by employee as part of the 30 April 2020 IAS19 valuation. The CFO has calculated the liability per year of service for each employee and is concerned that the results vary greatly by employee.

- v. Explain the reasons for the variances by employee.

[4]

The CFO is considering incorporating the post-retirement subsidy scheme cost for future service into each employee's cost-to-company package. The CFO has asked for your views in this regard.

- vi. Draft your response to the CFO.

[6]

[Total 43]

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QUESTION 3

The South African government offers four state-funded benefits to its citizens, aimed at providing a social security net for the most vulnerable members of society.

i. Briefly describe the environment in which these benefits are provided. [5]

ii. Briefly describe these benefits and, for each benefit, state how it is funded. [7]

The government is proposing two changes to the social security benefits system currently in place:

- a. Current state old-age grant is to be pre-funded.
- b. The level of the state old-age grant and the child grant are to be doubled.

iii. Outline the advantages and disadvantages of pre-funding the state old-age grant. [4]

iv. Assess the implications of the proposed increase in the level of the state old age pension and the child grant. Your answer should address:

- the likely impact on birth rates
- the various ways that the benefits could be financed
- the impact on contributions to occupational and individual retirement funding arrangements
- the impact on the means-test.

[7]

[Total 23]

[Grand Total 100]

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END OF EXAMINATION