

EXAMINATION

20 May 2015

Subject F201 – Health and Care Specialist Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

- 1. Candidates will be issued with instructions to log-in using a password (which you will be provided with at the exam center).*
- 2. Candidates are required to submit their answers in Word format only using the template provided.*
- 3. Save your work continuously throughout the exam, on your computer's hard drive that you have been provided.*
- 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 invigilator/supervisor.*
- 6. Mark allocations are shown in brackets on exam papers.*
- 7. Attempt all 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.

<p>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 list.</p>

QUESTION 1

- (i) Describe the impact that the introduction of the Government Employees Medical Scheme (GEMS) in 2006 has had on the South African medical schemes industry.

[6]

Regulation 4 of the Medical Schemes Act addresses the movement of members between options.

- (ii) Describe Regulation 4 and its application concerning movement between options (excluding termination of membership and re-joining a medical scheme). [2]

- (iii) List the factors that may influence an existing member's decision to change their benefit option. [10]

An open medical scheme's most comprehensive option is the only scheme option that offers benefits for non-PMB hip and knee replacements.

Feedback from brokers indicates that the second most comprehensive option is not competitive compared to similarly priced options in the market and suggest adding a similar non-PMB hip and knee replacement benefit to this second option.

- (iv) Discuss the impact that introducing non-PMB hip and knee replacements to the second most comprehensive option may have on the scheme. [9]

[Total 27]

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QUESTION 2

SaturnMed is a restricted medical scheme associated with a corporate group (the employer).

The employer has just informed the scheme that it intends to sell one of its divisions. As a result the active employees working in this division will leave the scheme at the date of the transaction. The pensioners who historically worked in this division will remain on the scheme.

The scheme has concerns regarding the resulting impact on its long-term sustainability. It is negotiating a deal with the employer in terms of which the employer will make additional payments to the scheme. These payments will be determined retrospectively at the end of each calendar year as the difference between the benefits paid on behalf of this specific group of pensioners (including their dependants) and their risk contributions.

The employer's auditors believe that these payments constitute a subsidy of post-employment healthcare costs and must be provisioned for on the company's balance sheet.

- (i) Summarise the methodology you would follow to calculate the amount of the provision including how you would go about setting the necessary assumptions. [15]

[Total 15]

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QUESTION 3

- (i) Describe the nature of a medical scheme's liabilities. [9]
- (ii) List the characteristics of the assets that should be held to cover these liabilities under a matched investment strategy. [2]

TechMed is a compulsory restricted scheme for employees of DuraMin, a deep underground mining operation.

Mines are allowed to operate their own healthcare facilities. All primary and basic hospital care for TechMed members is provided by DuraMin's healthcare facilities and the scheme pays DuraMin a capitated facility fee for these services.

Complex cases, such as specialised surgery, oncology or severe trauma cases that cannot be handled by these facilities are referred to private hospitals and the related costs are directly remunerated on a fee for service basis.

TechMed's pricing policy is to set contributions such that in any given year the scheme budgets for a break-even on a net healthcare result level, using best estimate projections.

- (iii) Explain the impact that the above arrangement may have on the predictability of TechMed's net healthcare results. [9]

TechMed wishes to increase its return on investments, arguing that it has been able to maintain reserves well above the minimum level for a number of years.

It has conceptually divided its assets into two categories.

"Regulatory assets" refers to the assets that are intended to cover the scheme's Regulatory reserves. 75% of Regulatory assets will be invested in bonds and 25% will be invested in cash.

"Free assets" refers to any assets held by the scheme in excess of the regulatory assets. The scheme has requested that you prepare a certified statement to the effect that it is appropriate for TechMed to invest its free assets outside the limits specified in Annexure B of the Regulations, as contemplated in Regulation 29(3A).

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You have been provided with the following information:

Asset type	Proposed asset allocation (Total assets)	Limit specified in Annexure B of the Regulations
Cash	14.0%	100%
Bonds	41.0%	100%
Property	2.5%	10%
Equities	42.0%	40%
Other	0.5%	3%
Total	100.0%	

The limits on holdings in any single entity will continue to apply.

You have also been provided with the following financial information:

Balance sheet as at 31 December 2014

ASSETS	R million	FUNDS AND LIABILITIES	R million
Non-current assets	308.9	Members' funds	409.2
Available-for-sale investments	308.9	Accumulated funds	409.2
		Available-for-sale revaluation reserve	-
Current assets	116.2	Current liabilities	15.9
Trade and other receivables	15.9	Outstanding claims provision	12.4
Cash and cash equivalents	100.3	Trade and other payables	3.5
Total assets	425.1	Total funds and liabilities	425.1

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Consolidated statement of comprehensive income

Year	Annual Financial Results			Budget
	2012	2013	2014	2015
Average number of members	25 718	19 222	18 008	18 008
Average number of beneficiaries	70 567	52 468	48 317	48 317
Statement of comprehensive income	R millions			
Contribution income	980.7	789.8	811.4	871.7
Relevant healthcare expenditure	(893.7)	(804.2)	(723.7)	(802.4)
Capitation fees	(461.8)	(367.4)	(362.0)	(387.4)
Direct claims	(431.9)	(436.8)	(361.7)	(415.0)
Gross healthcare result	87.0	(14.4)	87.7	69.3
Non-healthcare expenditure	(80.2)	(64.9)	(64.9)	(69.2)
Net healthcare result	6.8	(79.3)	22.8	0.1
Other income	20.6	19.2	8.0	17.5
Investment income	21.3	20.0	8.7	18.1
Asset management and monitoring costs	(0.7)	(0.8)	(0.7)	(0.6)
Total comprehensive income for the year	27.4	(60.1)	30.8	17.6
Accumulated funds per Statement of Financial Position	483.2	469.3	409.2	441.3
Unrealised capital gains	(33.4)	(79.7)	-	(3.3)
Accumulated funds per Regulation 29 of the Act	449.8	389.6	409.2	438.0
Solvency	45.9%	49.3%	50.4%	50.2%

(iv) Discuss the appropriateness of TechMed's proposed investment strategy.

Your response should comprise a discussion of:

- The factors you need to consider;
- Relevant risks;
- The appropriate level of the minimum reserves to be held;
- Additional requests for information you may need to make;
- An evaluation of the relevant aspects of TechMed's experience, based on the available information; and
- Your conclusion.

Show any calculations you make to support your conclusion and state any assumptions you make.

[38]

[Total 58]
[Grand Total 100]

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END OF EXAMINATION