19. (2.5 points)

The following information from the Dynamic Capital Adequacy Testing (DCAT) analysis of a federally regulated property and casualty insurance company is available as at December 31, 2018.

Scenario	**Variable**	**2019**	**2020**	**2021**	**2022**
Base scenario	MCT Ratio	215%	240%	250%	265%
	Assets	1,000,000	1,100,000	1,210,000	1,331,000
	Liabilities	700,000	770,000	847,000	931,700
Frequency/ severity (loss ratio)	MCT Ratio	215%	170%	125%	146%
	Assets	1,000,000	944,000	890,400	919,440
	Liabilities	700,000	714,000	727,400	720,140
Misestimation of policy liabilities (unpaid claims)	MCT Ratio	215.0%	-18.2%	11.2%	40.4%
	Assets	1,000,000	744,000	770,400	799,440
	Liabilities	700,000	764,000	757,400	750,140
Combined economic scenario	MCT Ratio	215.0%	114.1%	148.8%	182.2%
	Assets	1,000,000	802,000	831,700	864,370
	Liabilities	700,000	722,000	718,700	715,070

Internal Target: 200%

a. (0.5 point)

Describe the requirements of a DCAT base scenario.

b. (0.5 point)

Assess whether or not the company is in satisfactory financial condition.

c. (0.5 point)

Identify two possible management actions that the actuary may consider under the misestimation of policy liabilities scenario.

d. (0.5 point)

Identify two possible ripple effects that the actuary may consider under the frequency/severity (loss ratio) scenario.

e. (0.5 point)

A catastrophic event occurs after the report is completed, but before the presentation to the Board is made. Describe the actions that the Appointed Actuary (AA) should take.

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QUESTION 19

TOTAL POINT VALUE: 2.5 points	**LEARNING OBJECTIVE(S): C2**

SAMPLE ANSWERS

Part a: 0.5 point

Two of the following

- A realistic set of assumptions used to forecast insurer's financial condition during forecast period.
- Usually consistent with business plan unless it is unrealistic.
- Throughout the forecast period, the base scenario is required to have MCT > 150%.
- Throughout the forecast period, assets are greater than liabilities.

Part b: 0.5 point

Sample

- Under the base scenario, MCT is greater than 150% throughout the forecast period.
- For all base and adverse scenarios throughout the forecast period, assets must be greater than liabilities. However, under unpaid claims adverse scenario, liabilities are greater than assets in 2020, so the company is not in a satisfactory financial condition.

Part c: 0.5 point

Two of the following

- Implement rate increase where possible
- Review target mix of business
- Sell and reinvest assets
- Review reserving and claims handling guidelines
- Review reinsurance coverage
- Review investment strategy
- Settling claims faster

Part d: 0.5 point

Two of the following

- Loss of reinsurance coverage for the remainder of the term
- Forced sale or liquidation of assets
- Deterioration of loss ratio
- Increase in combined ratio

- Deterioration of ROE
- Rating agency downgrade
- Increase in policy liabilities related to current reinsurance contract
- Post event inflation
- Insolvency of one or more reinsurers
- Increase in reinsurance rates
- Increased PACICC assessments

Part e: 0.5 point

Sample

If the event has a material impact on the company and invalidates the report, the actuary should amend the report and disclose it. However, if the event is not material, should only disclose.

EXAMINER'S REPORT

Candidates were expected to understand the details of Dynamic Capital Adequacy Testing.

Part a

Candidates were expected to describe the base scenario in the context of the DCAT. At least two key elements were expected.

A common error was listing only one item out of two.

Part b

Candidates were expected to assess whether the company was in a satisfactory financial condition.

Common errors included:

- Stating that the company needed to have a positive MCT ratio to have a satisfactory financial condition

Part c

Candidates were expected to identify two management actions that the actuary may consider under the misestimation of policy liabilities.

Common errors included:

- Providing management actions not related to the misestimation of policy liabilities scenario
- Providing only one answer
- Providing ripple effects instead of management actions

Part d

Candidates were expected to identify two ripple effects that the actuary may consider under the frequency/severity (loss ratio).

Common errors included:

- Providing ripple effects not related to the frequency/severity (loss ratio) scenario
- Providing only one answer
- Providing management actions instead of ripple effects

Part e

Candidates were expected to describe the actions that the actuary needs to take when a catastrophic event occurs after the report is completed, but before the presentation to the Board is made.

Common errors included:

- Identifying this event as a subsequent event, which was not the case as the catastrophe occurred after the report date. Assuming that a catastrophic event would automatically invalidate the report. This is not necessarily the case if the event is not material to the company.