23. (3.25 points)

a. (0.5 point)

Briefly describe two scenarios that would lead to an increase in capital charges for investment risk in A.M. Best's net required capital calculation.

b. (1 point)

Identify and briefly describe the two risk categories other than investment risk used in A.M. Best's net required capital calculation.

c. (0.5 point)

Describe the purpose of the "square root rule" used in A.M. Best's BCAR formula.

d. (0.25 point)

Describe the purpose of A.M. Best's natural catastrophe stress testing.

e. (1 point)

Given the following information, explain which company is more likely to have A.M. Best allow its stress-tested BCAR score to fall below the BCAR guidelines.

| | Company A | Company B |
|---|---|---|
| Company Profile | Mutual insurance company | Publicly traded insurance company |
| Line of Business | Commercial Property | Personal Auto, Personal Property, Commercial Auto and Commercial Property |
| Primary Cat Exposure | Hail | Earthquake |

**CONTINUED ON NEXT PAGE**

| QUESTION 23 | |
|---|---|
| **TOTAL POINT VALUE: 3.25** | **LEARNING OBJECTIVE(S): C2** |
| **SAMPLE ANSWERS** | |
| **Part a:** 0.5 point | |
| Any two of the following:<br>• Market volatility that leads to a decline in market value of the investment portfolio<br>• Increase in interest rate, which decrease market value of fixed-income securities<br>• Concentration of asset class with high risk of default<br>• Material amount of foreign investment in a particular investment category<br>• Important recession that would greatly affect the value of equities<br>• Default risk from bond issuers that suddenly increases | |
| **Part b:** 1 point | |
| • Credit risk (any one of the following):<br>o Capital charges are applied to different receivable balances to reflect 3rd party default/counterparty risk.<br>o Reflect the risk that insurer is unable to collect recoverables from reinsurer<br>o Reflect the risk that insurer is unable to collect recoverables from agents and brokers<br>o Reflect the risk that insurer is unable to collect recoverables from policyholders<br>o Reflect the risk that insurer is unable to collect recoverables from residual markets<br><br>• Underwriting risk or Insurance risk (any one of the following):<br>o Capital charges are applied to loss and loss adjustment expense reserves and net premium written<br>o Reflect the pricing risk inherent in a company's mix of business<br>o Reflect any excessive growth in premium or exposure<br>o Reflect the risk inherent in a company's loss reserve | |
| **Part c:** 0.5 point | |
| Sample answers include the following:<br>• Adjustment to reflect the fact that individual risk components will not likely to develop simultaneously<br>• Adjust for the diversification between risk categories<br>• Credit because risk categories are not independent | |
| **Part d:** 0.25 point | |
| Sample answers include the following:<br>• A.M. Best stress a company's BCAR score for a second Catastrophic event<br>• The purpose is test how sensitive a company's balance sheet strength is to a second catastrophic event<br>• Determine the impact on surplus of multiple catastrophic events | |
| **Part e:** 1 point | |

*Sample answer:*

- Company B has more access to capital as a publicly traded company.
- Company B has a more diversified book of business so may have less volatility
- Company B is not exposed to frequent catastrophic event that which can lead to accumulation losses. Earthquake is less subject to occur multiple times.
- So company B is more likely to be allowed to fall below the BCAR Guidelines.

**EXAMINER'S REPORT**

Candidates were expected to demonstrate knowledge of the A.M. Best rating system.

**Part a**

Candidates were expected to list two examples that could lead to an increase in capital charges for investment risk in the A.M. Best rating system such as scenarios that were related to fixed income securities, equities, or interest rates.

A common error was to inverse the effect. For example:

- A decrease of interest rate will decrease the market value of fixed-income securities

Another common error was to only provide an example but not describe the scenario that would lead to an increase in capital charges. For example:

- A decline in market value of the investment portfolio

**Part b**

Candidates were expected to identify and describe credit risk and underwriting or insurance risk.

Common errors include:

- Stating items related to the MCT such as operational risk.
- Only providing the risk but not the description.

**Part c**

Candidates were expected to briefly describe the purpose of the square root rule.

There were no common errors.

**Part d**

Candidates were expected to describe the purpose of the A.M. Best natural catastrophe stress testing.

A common error was not stating the purpose is to test how sensitive a company's balance sheet strength is to a <u>second</u> catastrophic event.

**Part e**

Candidates were expected to use the information provided to determine which company would have the authorization of A.M. Best to fall below the BCAR Guidelines. To get full credit, 3 keys items needed to be discussed: financial flexibility, historical volatility assumed by the diversification of line of business, and exposure to frequent seasonal events.

Common errors include:

- Answering that company A would be more likely to fall below the BCAR guidelines. The question asked candidates to determine which company would be more likely to have A.M. Best authorization to fall below the BCAR guidelines.
- Not discussing each of financial flexibility, historical volatility and exposure to frequent seasonal events.