GI FREU Model Solutions
Spring 2016

1. **Learning Objectives:**

2. The candidate will understand the analysis of a general insurer's financial health through prescribed formulas, ratios and other solvency regulation methods.

Learning Outcomes:

(2b) Understand and apply the elements of the NAIC RBC formula.

(2e) Understand the development and principles of solvency regulation, including that in the U.S., Canada and the E.U.

(2g) Demonstrate knowledge of ORSA and its implementations.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 12 (Solvency Monitoring)

NAIC, "NAIC Own Risk and Solvency Assessment (ORSA) Guidance Manual"

NAIC, "The U.S. National State-Based System of Insurance Regulation and the Solvency Modernization Initiative"

Commentary on Question:

This question tests a candidate's understanding of issues in solvency monitoring.

Solution:

(a) Explain how uniform risk charges in a regulatory required capital formula, such as NAIC RBC, may lead to behavior by an insurer that increases its risk of insolvency for each of the following types of risks:

(i) Reserving risk

(ii) Reinsurance credit risk

Commentary on Question:

The model solution is an example of a full credit solution. Other full credit responses are possible. Note that "uniform risk charges" implied "uniform risk charge formula across companies" because it was followed by "such as NAIC RBC." It did not imply "uniform risk charges by line of business" as this is not the case for NAIC RBC.

1. Continued

Reserving risk: Risk of insolvency is reduced when reserves are adequate. Uniform risk charges, pegged to actual reserves, penalize insurers with adequate reserves and reward insurers at greater risk with deficient reserves.

Reinsurance credit risk: Risk of insolvency is reduced when insurers cede an appropriate amount of business to financially strong reinsurers. Uniform risk charges penalize insurers who pay more for reinsurance from financially strong reinsurers and reward insurers who buy less expensive reinsurance from financially weak reinsurers.

(b) Explain why the NAIC adopted Own Risk Solvency Assessment (ORSA) reporting as part of the solvency monitoring regime for insurers.

Commentary on Question:
The model solution is an example of a full credit solution. Other full credit responses are possible.

ORSA was adopted by the NAIC to provide regulators with the insurer's views on risk management and setting target capital to its own risk tolerances. ORSA enhances the information available to regulators since NAIC RBC provides a retrospective look at solvency whereas ORSA provides a prospective look at solvency. Furthermore, ORSA requires actuarial modeling of insurance risks including those risks not included in NAIC RBC because they are not easily quantified.

(c) Explain how duplicative examination efforts by state regulators are minimized for insurers writing in multiple states.

Commentary on Question:
The model solution is an example of a full credit solution. Other full credit responses are possible.

- Regulators may rely on the exam work of the NAIC accredited domiciliary state.
- For large insurance holding company groups, regulators are encouraged to coordinate their examinations of individual entities by following a lead state concept for the insurer group.

2. Learning Objectives:

3. The candidate will be able to apply the standards of practice regarding the responsibilities of the actuary as defined by regulators and the American Academy of Actuaries.

Learning Outcomes:

(3a) Describe, interpret and apply the applicable Standards of Practice.

(3b) Describe, interpret and apply the responsibilities of the actuary with respect to the Statement of Actuarial Opinion and the Actuarial Report.

(3d) Describe and apply the concept of materiality.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 14 (Overview of the General Insurance Statement of Actuarial Opinion)

AAA, Committee on Property and Liability Financial Reporting, "A Public Policy Practice Note, Statements of Actuarial Opinion on Property and Casualty Loss Reserves"

AAA, Task Force on Materiality, "Materiality, Concepts on Professionalism"

Actuarial Standards Board, Actuarial Standard of Practice No. 36, Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves

Commentary on Question:

This question tests the candidate's understanding of details with respect to the SAO.

Solution:

(a) Identify two reasons the regulator may have granted NICE an exemption from the SAO requirement in its first year of operation.

Commentary on Question:

The model solution identifies three reasons. Only two of the three were required for full credit.

- Exemption for Small Companies
- Exemption for Nature of Business
- Financial Hardship Exemption

2. Continued

(b) Select the type of SAO indicated by the total reserves reported by NICE management. Justify your selection.

- "Determination of Deficient or Inadequate Provision"
- This is because the total reported reserves are below the low end of the actuarial range of reasonable reserve estimates.

(c) Explain whether or not there would be a risk of material adverse deviation for NICE.

Commentary on Question:
One approach to a solution for this question requires a reasonable selection of materiality. The model solution represents one example of a full credit solution using this approach. The materiality selection in the model solution is one of many possible reasonable selections because a selection of materiality for the SAO requires actuarial judgment. An alternative approach to the solution for this question would note that the level of materiality required for the reported reserves to not have a risk of material adverse deviation is 2.7 million (9.0 million – 6.3 million) and that this is not a reasonable selection of materiality since it is well over any reasonable percentage of reported surplus.

Assume that materiality is 5% of surplus or 75,000. There would be a risk of material adverse deviation because reported reserves plus the materiality standard equals 6.38 million which is over 2 million below the upper limit of the reasonable range determined by the actuary.

(d) Explain why an actuary might select a range of estimates without selecting a point estimate within the range.

Commentary on Question:
The model solution represents one example of a full credit solution.

- The Appointed Actuary opines on the reasonableness of a reserve amount carried by an insurer.
- There may not be sufficient information to choose a "best estimate" amount within a reasonable range.
- A point estimate suggests a precision to the estimate that may not exist. There is normally significant uncertainty around any point estimate.

2. Continued

(e) Identify the data you should review with respect to asbestos liability exposures for the next year's SAO, assuming that the acquisition is successfully completed.

Commentary on Question:
There a number of acceptable data sources that can be identified for full credit. A full credit response should have included at least two data sources. The model solution represents one example of a full credit solution.

- the company's disclosure in the Notes to the Financial Statements
- the company's SEC Form 10-K

(f) Describe four aspects of the company's asbestos liability exposures that you should comment on in next year's SAO, assuming that the acquisition is successfully completed.

Commentary on Question:
There a number of aspects that can be identified for full credit. A full credit response required four aspects. The model solution represents one example of a full credit solution.

- Whether there appears to be a material exposure
- The aggregate dollar amount of reserves held for this exposure
- Whether the liabilities are being handled by a dedicated/experienced unit
- Whether the actuary believes that the ultimate liability is actuarially estimable

3. Learning Objectives:

1. The candidate will understand the elements of financial reporting for general insurance companies.

Learning Outcomes:

(1e) Understand and apply the concepts of reinsurance accounting.

Sources:

Brehm, P. and Ruhm, D., "Risk Transfer Testing of Reinsurance Contracts"

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 4 (Accounting for Reinsurance Contracts)

NAIC Statement of Statutory Accounting Principles

- No. 62 Revised, "Property and Casualty Reinsurance"

Commentary on Question:

This question tests the candidate's understanding of the rules for reinsurance accounting under U.S. statutory accounting. The question also tests the candidate's knowledge regarding the assessment of risk transfer.

Solution:

(a) Describe the two necessary conditions for a reinsurance contract to meet the requirement for transferring insurance risk in U.S. statutory accounting.

- The reinsurer assumes significant insurance risk under the reinsured portions of the underlying insurance agreements; and
- It is reasonably possible that the reinsurer may realize a significant loss from the transaction.

(b) Calculate the RCR, in percentage form, for JB's aggregate excess of loss contract with Bru Re.

Commentary on Question:

Displaying the calculation of the RCR may be organized in different ways. The model solution represents an example of a full credit solution for the calculation.

RCR% = pT/E(G) where
E(G) = expected economic gain, p = probability of net economic loss,
T = average net economic loss when a net economic loss occurs
Net gain(loss) = Premium – Loss / (1 + Treasury Rate%)
Premium is 50, Treasury Rate is 5%

3. Continued

Gross aggregate claim amount (in millions)	Probability	Reinsured Loss	Net Gain(Loss)	Net Loss Indicator
0	80.0%	0	50.0	0
50	12.5%	10	40.5	0
350	7.0%	310	(245.2)	1
1000	0.5%	500	(426.2)	1

E(G) = 50×80%+40.5×12.5%– 245.2×7%– 426.2×0.5% = 25.8
p = 100% – 80% – 12.5% = 7.5%
T = (245.2×7%+426.2×0.5%)/7.5% = 19.3/.075 = 257.3
RCR% = 7.5% × 257.3 / 25.8 = 74.9%

(c) Explain why JB would likely not need to test for risk transfer with respect to this aggregate excess of loss contract with Bru Re.

- Testing for risk transfer is not required when risk transfer is self-evident. Risk transfer in most excess of loss reinsurance contracts is self-evident.
- This excess of loss reinsurance contract is priced so that the reinsurer may experience a significant loss. Therefore, risk transfer is self-evident for this contract and testing is not required.

(d) Identify an example of a reinsurance contract provision that could have been included in this aggregate excess reinsurance contract that would shift insurance risk back to JB.

Commentary on Question:
There are many possible examples. A full credit response required only one example. The model solution provides two examples.

- Retrospective rating providing additional premiums for poor experience
- Cancellation provision allowing reinsurance to be cancelled if results are worse than expected

(e) Describe two of the required attestations.

Commentary on Question:
The model solution provides all three of the attestations. Only two were required for full credit.

3. Continued

1. No separate written or oral agreements with a reinsurer reduce, limit, mitigate, or otherwise affect any losses under the reinsurance contract.
2. Wherever risk transfer is not self-evident, documentation of the economic intent of the reinsurance and the risk transfer analysis evidencing the proper accounting treatment is available for review.
3. The insurer complies with SSAP 62 requirements and has appropriate monitoring controls.

4. Learning Objectives:

4. The candidate will be able to describe the current and historical regulatory environment.

Learning Outcomes:

(4b) Describe and interpret the current state of general insurance regulation in the U.S. and its development.

Sources:

Insurance Regulation, The Institutes

- Chapter 2 (Development of Insurance Regulation)

Mayer Brown, "Understanding the New Financial Reform Legislation: The Dodd-Frank Wall Street Reform and Consumer Protection Act"

Commentary on Question:

This question tests the candidate's understanding of certain issues in insurance regulation in the United States.

Solution:

(a) Identify two other Congressional acts that the business of insurance was subject to after the SEUA decision that the insurance industry believed would change normal industry practice.

Commentary on Question:

The model solution identifies three acts. Only two were required for full credit.

- Sherman Antitrust Act
- Clayton Antitrust Act
- Robinson-Patman Act

(b) Identify two activities by insurers that are prohibited by the NAIC's Act Relating to Unfair Methods.

Commentary on Question:

There are a number of activities prohibited by this act. The model solution identifies three activities. Only two were required for full credit.

- Misrepresentation and false advertising of insurance policies
- False financial statements
- Unfair discrimination

(c) Explain how GLB affected regulation of the business of insurance.

4. Continued

Commentary on Question:
There are a number of ways that GLB affected regulation of the business of insurance. The model solution is an example of a full credit solution.

- GLB prohibits state actions that would prevent bank-related firms from selling insurance on the same basis as insurance producers.
- GLB compels states to facilitate insurance producers' ability to operate in more than one state.

(d) Describe the conditions under which the FIO may preempt state measures of insurance regulation.

- Dodd-Frank authorizes the FIO to preempt state measures that, in the FIO's judgment, are:
  - inconsistent with covered agreements, or
  - otherwise result in less favorable treatment of insurers domiciled in foreign jurisdictions that are subject to covered agreements than the treatment accorded to U.S. insurers that are admitted in the state.

5. Learning Objectives:

1. The candidate will understand the elements of financial reporting for general insurance companies.

Learning Outcomes:

(1c) Describe the elements of the NAIC Annual Statement.

(1d) Complete and interpret selected pages/schedules in the NAIC Annual Statement as included in the resources.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 7 (Statutory Loss Accounting and Schedule P)

Commentary on Question:

This question tests the candidate's understanding of Schedule P in the NAIC Annual Statement.

Solution:

(a) Explain how one would reconcile *Total Losses and Loss Expenses Incurred* as shown in Annual Statement Schedule P Part 1 – Summary to the sum of the following amounts from the Statement of Income:

(i) Line 2 (*Losses incurred*); and

(ii) Line 3 (*Loss adjustment expenses incurred*).

Commentary on Question:

There are a number of ways that this can be explained. A full credit solution should be clear noting that Schedule P from the current year and the prior year are required for this reconciliation and the elements from them that are required.

AS = Annual Statement, SP1-S = Schedule P Part 1 – Summary
Let the current year be 20X1 and the prior year 20X0.

Therefore (i) + (ii) from the 20X1 AS is equal to the following:

- 20X1 AS SP1-S net incurred by accident year
- – 20X0 AS SP1-S net incurred by accident year (excluding the oldest accident year)
- + 20X1 AS SP1-S prior years' row net payments
- + 20X1 AS SP1-S prior years' row net unpaid
- – 20X0 AS SP1-S prior years' row net unpaid
- – 20X0 AS SP1-S net unpaid for oldest accident year shown

5. Continued

(b) Explain the effect on a company's Schedule P Part 2 incurred loss development if one of its reinsurers becomes insolvent and its reinsurance recoverables become uncollectible.

- Recoverable would be reduced to zero, so net incurred would increase by the recoverable reduction.
- Since Schedule P incurred loss development is on a net basis, this would show as adverse incurred loss development.

(c) Describe the circumstances under which the historical loss development figures in Schedule P Part 2 from a prior year's annual statement will differ from the corresponding figures included in the current year's annual statement even though there are no errors or corrections.

Commentary on Question:
There are several different circumstances that can result in this. The model solution provides two circumstances. Only one circumstance was required for full credit.

- This can occur when there is intercompany pooling and the pooling percentage changes.
- This can occur when the insurer is involved in a merger/acquisition transaction.

(d) Describe two potential issues that may limit the usefulness of the Schedule P derived average paid severity development on claims closed triangles, as described above, for a trend analysis even when there is a sufficient volume of claims data to make inferences.

Commentary on Question:
There are a number of potential issues. The model solution includes three potential issues. Only two were required for full credit.

- Amounts are on a net basis so they can be distorted by reinsurance.
- Part 3 paid losses include partial payments on claims still open.
- Schedule P lines of business are broad, exposures within this line may have changed over time.

6. Learning Objectives:

5. The candidate will be able to understand tort law and insurance law with respect to its impact on the general insurance industry.

Learning Outcomes:

(5a) Describe and interpret the key elements of tort law and the underlying principles of insurance law.

(5e) Describe and interpret legal cases/issues from *Important Legal cases with Respect to the U.S. General Insurance Industry.*

Sources:

Excerpts from Business Law for Insurance Professionals, Institutes Custom Publishing, Assignment 2 (Tort Law)

RAND Institute for Civil Justice, "Changes in the Standards for Admitting Expert Evidence," RB-9037-ICJ

Commentary on Question:

This question tests the candidate's understanding of important issues in tort liability (admissibility of expert evidence and strict liability) as it applies to a given set of facts.

Solution:

(a) Assess the likelihood that the plaintiffs' expert testimony will be admitted by the judge presiding over this case using the U.S. Supreme Court decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* as a guide.

Commentary on Question:

A full credit response was required to outline at least three of the five Daubert factors and relate them to the facts of the case as presented. The assessment may either be that the testimony is likely to be admitted or not likely to be admitted. Widely varying responses are possible for full credit. The model solution is an example of a full credit response.

In *Daubert v. Merrell Dow*, the judge ruling in the case identified a number of factors that should be assessed in order to determine if expert testimony should be admitted. These factors include:

1. The existence and maintenance of standards controlling the particular technique's operation;
2. Whether it has been subjected to peer review and publication; and
3. Its known or potential rate of error.

6. Continued

- The first factor noted above is likely satisfied because Dr. Key has followed established protocol for research experiments on animals.
- The second factor noted above is not satisfied because the results of the experiment were not peer reviewed.
- With respect to the third factor, no known or potential rate of error is specifically mentioned. However, the same experiment was repeated and did not provide the same conclusion. Furthermore, the results from most animal studies on radiofrequency emissions are inconclusive. Cohort studies would likely suggest that the results from Dr. Key's first experiment were an anomaly.
- It is likely that the testimony will not be admitted because it would not satisfy the second and third factors as noted above.

(b) Assess the applicability of strict liability as a basis for this tort.

Commentary on Question:
A full credit response was required to indicate that this is a products liability lawsuit and describe at least three of the five conditions a plaintiff must show in a products liability lawsuit for application of strict liability. The conditions described then needed to be related to the facts of the case as presented. The assessment may either be that strict liability should or should not apply. Widely varying responses are possible for full credit. The model solution is an example of a full credit response.

- This is a products liability tort. In a products liability tort, the plaintiff must show the following to base it on strict liability:
  1. The seller was in the business of selling products.
  2. The product was dangerously defective when it left the manufacturer's or seller's custody or control.
  3. The defect was the proximate cause of the injury.

  - The first condition noted above is satisfied because FRE is in the business of marketing and selling its phones.
  - The second condition is likely satisfied because the alleged dangerous defect of high radiofrequency emissions is by manufacturer design to boost the signal. The radiofrequency emissions from FRE phones are higher than normal and children are theoretically at greater risk. FRE markets the phones to children.
  - The third condition is satisfied only if the plaintiff can prove causation between increased radiofrequency emissions and brain cancer in children.
  - For these reasons, if the plaintiffs can prove causation, they will not need to prove negligence because strict liability will apply.

7. Learning Objectives:

1. The candidate will understand the elements of financial reporting for general insurance companies.

Learning Outcomes:

(1a) Understand and apply the concepts of insurance accounting.

(1d) Complete and interpret selected pages/schedules in the NAIC Annual Statement as included in the resources.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 1 (Accounting Systems for General Insurers)
- Chapter 9 (Measuring Total Income for General Insurers)

Solution:

Calculate MGI's investment gain allocated to HO for the 2015 Insurance Expense Exhibit.

Commentary on Question:

This question tests the candidate's understanding of the investment gain allocation calculation in the IEE. There are several approaches that may be taken to perform this calculation. The model solution presents one approach.
The following acronyms are used in the model solution:
PHS = policyholders surplus, RCG = realized capital gains,
II = investment income, IGR = investment gain ratio,
UEPR = unearned premium reserve, LAE = loss adjustment expenses,
EP = earned premium, WP = written premium, AB = agents' balances,
Mean is average over 2014 and 2015.

Amounts shown in the calculation are in thousands.

MGI's investment gain allocated to HO for the 2015 Insurance Expense Exhibit is
IG_HO_2015
= IGR_2015 × [Mean Loss & LAE_HO + Mean UEPR_HO + Mean PHS_HO – Mean AB_HO]

IGR_2015
= [II_2015 + RCG_2015] / [Mean Loss & LAE + Mean UEPR + Mean PHS – Mean AB]

Using the relation EP = WP + UEPR_beg – UEPR_end we have:
UEPR_2015 = 2,500 + 1,300 – 2,425 = 1,375
UEPR_2015_HO = 1,750 + 850 – 1,700 = 900

7. Continued

IGR_2015
= [215+20] / [(335+30+380+35)/2 + (1,300+1,375)/2 + (5,500+6,000)/2 – (100+130)/2]
= 235 / [390 + 1,337.5 + 5,750 – 115] = 3.2%

In order to calculate IG_HO one needs Mean PHS_HO.

Mean PHS_HO
= Mean PHS × (Mean Loss & LAE_HO + Mean UEPR_HO + EP_2015_HO) / (Mean Loss & LAE + Mean UEPR + EP_2015)
= 5,750 × [(250+20+300+25+850+900)/2 + 1,700] / [390 + 1,337.5 + 2,425]
= 3,977.6

IG_HO_2015 = 3.2% × [297.5 + 875 + 3,977.6 – ((70+90)/2)] = 161.8

8. Learning Objectives:

4. The candidate will be able to describe the current and historical regulatory environment.

Learning Outcomes:

(4c) Compare different forms of rate regulation.

(4d) Discuss market conduct regulation.

(4e) Discuss the issues regarding usage based insurance and telematics in automobile insurance.

Sources:

Insurance Regulation, The Institutes

- Chapter 7 (Underwriting Regulation)
- Chapter 8 (Rate Regulation)

Cappelletti, A., "Usage Based Insurance and Telematics"

Solution:

Recommend four changes to RGO's UBI rate filing in order to allay potential regulatory concerns. Justify your recommendation.

Commentary on Question:

This question tests the candidate's understanding of UBI rating and insurance regulation. There are many potential changes that could be recommended from the list of facts as presented. In order to achieve full credit, each of the four recommendations identified by the candidate must include justification showing knowledge of insurance regulation applied to the facts presented. The model solution is one example of a full credit response.

The following four changes are recommended to address potential regulatory concerns:

1 Modify B so that some current rating factors are maintained.
2 Modify D to eliminate real-time transmission of GPS location.
3 Modify F & G so that the rate is not a minimum and that UBI provides a discount for safe driving habits instead of a surcharge for bad driving habits.
4 Modify H so that RGO must supply its formula to the regulator. RGO must also provide policyholders with more information from the UBI rating so that they can understand its influence on pricing and how they can change their driving habits to reduce their premiums.

8. Continued

Recommendation 1 is required to reduce the potentially significant dislocation to RGO's current book of business. RGO should eliminate current rating factors incrementally over time to minimize dislocation and possible market disruption.

Recommendation 2 is required to allay concerns over policyholder privacy. Transmission of GPS location in real-time could be used to harm a policyholder if it were intercepted by those wishing to do harm.

Recommendation 3 is required to eliminate the issue of cancelling a policy for non-payment of recurrent surcharges. There can be valid reasons why a charge may not go through a smartphone account.

Recommendation 4 is required for transparency. To allay concerns of revealing proprietary information, there can be a confidentiality agreement. However, the regulator must have full access to the rating formula in order to properly assess it. Furthermore, policyholders require better disclosure of information so that it creates incentives for safer driving habits.

9. **Learning Objectives:**

2. The candidate will understand the analysis of a general insurer's financial health through prescribed formulas, ratios and other solvency regulation methods.

Learning Outcomes:

(2a) Evaluate the financial health of a general insurer using information contained in the Annual Statement.

(2b) Understand and apply the elements of the NAIC RBC formula.

(2e) Understand the development and principles of solvency regulation, including that in the U.S., Canada and the E.U.

(2i) Discuss the function of credit rating agencies and their impact on general insurers.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 12 (Solvency Monitoring)
- Chapter 13 (General Insurance Financial Ratings)
- Chapter 14 (Overview of the General Insurance Statement of Actuarial Opinion)

NAIC, "The U.S. National State-Based System of Insurance Regulation and the Solvency Modernization Initiative"

Commentary on Question:

This question tests the candidate's understanding of certain issues in solvency monitoring in the United States.

Solution:

(a) Explain how each of the main grounds for regulatory action identified above justify or do not justify regulatory action regarding XYZ's operations.

A. Action is justified since XYZ's investments and reinsurance likely create a hazardous financial condition.
B. Action is not justified as there is no improperly disposed property indicated and no altering/concealing of financial books indicated.
C. Action is likely justified since regulatory action is in the best interest of policyholders because policyholders will be harmed if XYZ becomes insolvent from risky investments and weak reinsurance. The risk of insolvency could become greater with the planned acquisition.
D. Action is likely justified because the combination of risky investments, weak reinsurance and negotiations for a significant acquisition indicate that the person in control of XYZ may be inexperienced or incapable.

9. Continued

(b) Describe one way that a regulator can use each of the following to show that XYZ may require regulatory action:

(i) NAIC Annual Statement

(ii) NAIC Risk-Based Capital (RBC)

(iii) Statement of Actuarial Opinion (SAO)

(iv) NAIC Own Risk and Solvency Assessment Report (ORSA)

(v) Financial rating from a major national rating agency

Commentary on Question:
There are many possible responses for each of (i) to (v). The model solution is an example of a full credit response.

(i) Use Schedule F to assess any delays in recoveries from the financially weak reinsurers.

(ii) Review the action level indicated by the current RBC and the RBC revised to assume that some of the financially weak reinsurers fail.

(iii) Review the Appointed Actuary's comments on reinsurance to see if any warning signs are noted.

(iv) Review the financial projection and see if the potential acquisition would cause undue financial strain.

(v) Review XYZ's financial ratings to see its current level and if there have been any ratings downgrades.

10. Learning Objectives:

4. The candidate will be able to describe the current and historical regulatory environment.

Learning Outcomes:

(4f) Describe the development of general insurance programs controlled by government or collective insurance industry organizations.

(4g) Describe the mechanisms of operation for government and/or collective insurance industry controlled programs as included in the resources.

Sources:

AAA Flood Insurance Subcommittee, "The National Flood Insurance Program: Past, Present … and Future?"

Cappelletti, A., "Government Provision of General Insurance"

Commentary on Question:

This question tests the candidate's understanding of some of the NFIP mechanisms of operation and the involvement of government in the provision of general insurance.

Solution:

(a) Describe four key differences between private-sector insurance and insurance offered in the U.S. through the National Flood Insurance Program.

Commentary on Question:

There are a number of key differences. Only four were required for full credit. The model solution provides five key differences. The differences described in the model solution are not intended to be an exhaustive list of key differences.

NFIP = National Flood Insurance Program
PSI = private-sector insurance

- NFIP is involved in the regulation of flood plain management. Insurers in PSI are generally not involved.
- NFIP has the power to mandate coverage. Insurers in PSI do not have the power to mandate coverage.
- NFIP policies use actual cash value to settle claims. Insurers in PSI generally use replacement cost to settle claims.
- NFIP policy language is provided by statute. PSI insurers develop/modify the policy language they use.
- NFIP does not include a profit provision in its rates. Insurers in PSI include a profit provision in rates.

10. Continued

(b) Propose two actions the government can undertake to stimulate the offering of flood insurance in the private insurance market. Justify your proposals.

Commentary on Question:
There are a number of actions that could be proposed. Full credit requires two proposed actions in which each proposal is reasonable and includes a justification that explains how it will stimulate the offering of flood insurance in the private insurance market. The model solution is an example of a full credit solution.

The government could set up a reinsurer that will reinsure much of the risk from private sector flood insurance through highly subsidized stop-loss reinsurance. With this form of government-provided reinsurance, the risk to private insurers is minimized, which should stimulate private insurers to offer flood insurance policies.

The government could introduce legislation requiring property owners to purchase flood insurance to be eligible for any disaster assistance. This action should ensure that there is a demand for flood insurance policies which should stimulate the private sector to offer the policies.

11. Learning Objectives:

1. The candidate will understand the elements of financial reporting for general insurance companies.

Learning Outcomes:

(1a) Understand and apply the concepts of insurance accounting.

(1f) Understand and apply the elements of discounting for general insurance loss reserves.

(1g) Demonstrate knowledge of taxation for general insurers in the U.S.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 1 (Accounting Systems for General Insurers)
- Chapter 15 (Federal Income Taxes for General Insurers)

Commentary on Question:

This question tests the candidate's understanding of insurance accounting, discounting and taxation. It also tests the candidate's ability to calculate discounted reserves.

Solution:

(a) Explain whether JGIC's loss ratio information for 2015 is consistent with the practice of "reserve strengthening."

- Since the 2015 calendar year loss ratio is greater than the 2015 accident year loss ratio, the company incurred amounts on past accident years' claims during 2015. This was either by payments greater than reserved amounts and/or by increasing reserves.
- This pattern would be expected from reserve strengthening. Therefore it is consistent, but not proof of, reserve strengthening.

(b) Calculate the difference between JGIC's 2015 income tax liability using discounted loss reserves and its income tax liability using undiscounted loss reserves for accident years 2013 to 2015.

Commentary on Question:

There are several approaches one may take to perform this calculation. The model solution shows one approach as an example of a full credit solution.

The key to this question is recognizing that the 2015 tax liability is based on incurred amounts during the year, not loss reserves at year-end. In order to calculate the effect of discounting on the 2015 tax liability, one needs to compare the change in reserves during 2015 on a discounted basis to the undiscounted basis.

11. Continued

AY = accident year, Δ = change in

Amounts in table are in millions.

AY	Nominal Ultimate	2015 Undiscounted Loss Reserves	2015 Discounted Loss Reserves	2014 Undiscounted Loss Reserves	2014 Discounted Loss Reserves
2013	40	=0	=0	=.2×40 =8	=8/(1.03^.5) =7.9
2014	50	=.2×50 =10	=10/(1.03^.5) =9.9	=(.3+.2)×50 = 25	=15/(1.03^.5)+ 10/(1.03^1.5) =24.3
2015	60	=(.3+.2)×60 =30	=18/(1.03^.5)+ 12/(1.03^1.5) =29.2		
Total		40	39.1	33	32.2

Δ Undiscounted Reserves = 40,000,000 – 33,000,000 = 7,000,000
Δ Discounted Reserves = 39,100,000 – 32,200,000 = 6,900,000

Difference in 2015 income tax liability due to the effect of discounting =
[7,000,000 - 6,900,000] × .35 = 35,000.

12. Learning Objectives:

5. The candidate will be able to understand tort law and insurance law with respect to its impact on the general insurance industry.

Learning Outcomes:

(5c) Discuss the issues of tort trends and tort reform as it applies to the general insurance industry.

(5d) Understand mass torts/class action suits and discuss their impact on the general insurance industry.

Sources:

Cappelletti, A., "Tort Issues for General Insurance Actuaries"

Commentary on Question:

This question tests the candidate's understanding of certain issues in tort law including trends, reforms and mass torts.

Solution:

(a) Provide one argument for and one argument against the use of medical care cost trends as a proxy for tort cost trends for pricing a liability book of business.

Commentary on Question:

There exist several arguments both for and against. The model solution is an example of a full credit solution providing one argument for and one argument against.

FOR: Tort awards often include amounts to compensate plaintiffs for bodily injury. These amounts usually represent a substantial portion of the damages awarded. Bodily injury awards include large amounts for medical care so the trends may be similar.

AGAINST: Medical care costs represent only a portion of direct tort costs. Loss expenses are a large portion of costs and likely do not have the same trend as medical care trends.

(b) Explain the purpose of tort reform with respect to the collateral source rule.

- Collateral source rule bars admissibility of evidence that a plaintiff's losses may be compensated from other sources.
- Some states have reformed this by putting in place limits to the rule in order to reduce the incidence of double recovery.

12. Continued

(c) Describe what distinguishes mass torts from other torts.

Commentary on Question:
There are several factors that distinguish mass torts from other torts. The model solution is an example of a full credit solution.

- Mass torts are very large in scope regarding the number of claimants and the amount of damages.
- Courts are now stricter on evidence allowed in mass torts (expert testimony, actual harm, etc.) so as not to have a recurrence of a mass tort similar to asbestos.

13. Learning Objectives:

4. The candidate will be able to describe the current and historical regulatory environment.

Learning Outcomes:

(4a) Describe the functions of key regulatory bodies in the U.S. including the NAIC and SEC.

(4b) Describe and interpret the current state of general insurance regulation in the U.S. and its development.

Sources:

Insurance Regulation, The Institutes

- Chapter 1 (Introduction to Insurance Regulation)
- Chapter 2 (Development of Insurance Regulation)
- Chapter 3 (Federal and Other Influences on Insurance Regulation)
- Chapter 5 (State Department of Insurance Operations)

Vaughan, T., "The Economic Crisis and Lessons from (and for) U.S. Insurance Regulation"

Commentary on Question:

This question tests the candidate's understanding of certain issues in the regulation of insurance.

Solution:

(a) Describe two reasons why the insurance industry is more highly regulated than many other industries.

Commentary on Question:

There are several reasons. Only two were required for full credit. The model solution is an example of a full credit response.

One reason is that of consumer protection. Regulation protects consumers by increasing the likelihood that insurers will be able to keep their future promises to provide compensation on the occurrence of contingent events.

Another reason is that the insurance industry is a key sector of the economy. The failure of some of the larger insurance companies, or the simultaneous failure of many smaller insurance companies, could disrupt the broader provision of critical financial services.

13. Continued

(b) Define the following concepts:

(i) Regulatory forbearance

(ii) Regulatory capture

(i) Regulatory forbearance: Failure to take prompt and stringent action when facing a potentially troubled firm since intervention is not pleasant.
(ii) Regulatory capture: Tendency for regulators to take on the mindset of an interest group rather than their regulatory role.

(c) Describe the ramifications of regulatory forbearance.

- Failure to act can increase the ultimate size of the problem/deficiencies.
- Failure to act enables the company in trouble to take increased risks that may lead to further damage.

(d) Describe the ramifications of regulatory capture.

- This may lead to the creation of additional agencies with the potential for higher costs of regulation.
- This may lead to lowering of regulatory capital standards.

(e) Describe two systems of peer review and multistate oversight within the framework of insurance regulation in the United States.

Commentary on Question:
There are more than two systems of peer review and multistate oversight within the framework of insurance regulation in the United States. Only two were required for full credit. The model solution is an example of a full credit response.

NAIC Financial Analysis Division
- Centralized function of NAIC that performs ongoing financial analysis of all nationally significant insurers.
- It is done independently of the work done by individual state regulators.

Financial Analysis Working Group
- A working group of experienced financial regulators.
- It is a forum for collaboration and problem-solving for potentially troubled insurers. It reviews companies and asks questions of the primary state regulator.

14. Learning Objectives:

1. The candidate will understand the elements of financial reporting for general insurance companies.

Learning Outcomes:

(1d) Complete and interpret selected pages/schedules in the NAIC Annual Statement as included in the resources.

(1h) Estimate the premium asset for retrospectively rated polices for financial reporting.

Sources:

Teng, M. and Perkins, M., "Estimating the Premium Asset on Retrospectively Rated Policies"

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 5 (Accounting Perspectives for Non-Admitted Assets)

Commentary on Question:

This question tests the candidate's ability to estimate the premium asset for retrospectively rated polices and understand how they are reported under U.S. statutory accounting.

Solution:

(a) Identify two reasons a loss capping ratio is required.

- To remove the portion of loss on the policies outside the boundaries of the retrospective rating plan maximum and minimum.
- To remove the portion of loss exceeding the per accident limit of the retrospective rating plan.

(b) Calculate the cumulative PDLD (CPDLD) ratio for the first retrospective adjustment.

First, calculate PDLD at 1st, 2nd and 3rd Retro:

$$PDLD_1 = [BPF \times TM / (ELR \times \%Loss_1)] + (LCR_1 \times LCF \times TM)$$
$$= [0.25 \times 1.04 / (0.60 \times 0.75)] + (0.65 \times 1.26 \times 1.04)$$
$$= 1.43$$
$$PDLD_2 = (LCR_2 \times LCF \times TM) = 0.3 \times 1.26 \times 1.04 = 0.39$$
$$PDLD_3 = (LCR_3 \times LCF \times TM) = 0 \times 1.26 \times 1.04 = 0$$

14. Continued

Calculate CPDLD at 1st Retro as the weighted sum of PDLDs by expected percentage of loss emerged from 1st to 3rd adjustment:

$$CPDLD_1 = [(1.43 \times 0.75) + (0.39 \times 0.2) + (0 \times 0.05)] / (0.75 + 0.2 + 0.05)$$
$$= 1.15$$

(c) Calculate the premium asset for the policy period subject to the first retrospective adjustment with the information in the above table and the ratio calculated in part (b).

Premium Asset = Estimated Total Premium – Premium Booked
= Expected Future Loss Emergence × $CPDLD_1$ – Premium Booked
= 210,000,000 × 1.15 – 225,000,000 = 16,700,000

(d) Describe the U.S. statutory accounting rule for admitting the premium asset on retrospectively rated policies.

This is a receivable not yet due:

- Ten percent of unsecured receivables not yet due are not admitted.
- Secured receivables not yet due are fully admitted.

15. **Learning Objectives:**

2. The candidate will understand the analysis of a general insurer's financial health through prescribed formulas, ratios and other solvency regulation methods.

Learning Outcomes:

(2c) Calculate and interpret the results of financial health ratios.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 11 (Measuring Insurer Financial Strength)

Commentary on Question:

This question tests the candidate's understanding of investment yield and the relationship between NAIC IRIS Ratios and the NAIC FAST process.

Solution:

(a) Describe two considerations with respect to the investment income used in the calculation of investment yield.

Commentary on Question:

There are several considerations. Only two were required for full credit. The model solution is an example of a full credit solution.

- Should investment income be stated gross or net of investment expenses?
- Should investment income include or exclude capital gains?

(b) Explain why an IRIS Ratio 6 value that exceeds the acceptable range may be an indicator of financial distress.

- A financially distressed insurer may hold high-yield bonds increasing the investment yield as a strategy to make up for underwriting losses.
- This strategy to increase investment yield also directly increases investment volatility and risk.

(c) Compare the FAST process for determining potential financial distress to the IRIS process.

Commentary on Question:

There are a number of items that may be compared. The model solution is an example of the level of comparison required for full credit.

Each financial ratio in the FAST process gives a numerical score, not a pass-fail result as in IRIS ratios which are each a hard pass/fail. FAST scores were designed to mitigate manipulation of the financial ratios that are used in IRIS.

15. Continued

The overall FAST score is a weighted sum of individual scores assigned to ranges on financial ratios, but the scoring system is not disclosed. IRIS ratios give equal weight to each ratio for disclosed exceptional amounts.

16. Learning Objectives:

3. The candidate will be able to apply the standards of practice regarding the responsibilities of the actuary as defined by regulators and the American Academy of Actuaries.

Learning Outcomes:

(3a) Describe, interpret and apply the applicable Standards of Practice.

(3b) Describe, interpret and apply the responsibilities of the actuary with respect to the Statement of Actuarial Opinion and the Actuarial Report.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 14 (Overview of the General Insurance Statement of Actuarial Opinion)

AAA, Committee on Property and Liability Financial Reporting, "A Public Policy Practice Note, Statements of Actuarial Opinion on Property and Casualty Loss Reserves"

Actuarial Standards Board, Actuarial Standard of Practice:

- No. 36, Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves
- No. 43, Property/Casualty Unpaid Claim Estimates

Commentary on Question:

This question tests the candidate's understanding of issues regarding ASOPs and the SAO.

Solution:

(a) Explain the issue with the terms "best estimate" and "actuarial estimate" as described in ASOP 43.

The terms do not sufficiently identify the intended measure or objective of the estimate.

(b) Identify two alternative terms ASOP 43 recommends in place of the terms "best estimate" and "actuarial estimate."

Commentary on Question:

Many alternative terms are acceptable. Only two were required for full credit. The model solution is an example of a full credit solution.

- Median estimate
- Actuarial central estimate

16. Continued

(c) Propose a response to company management regarding their request.

The Actuarial Opinion Summary (AOS) is a confidential document and it is filed with the domiciliary state only; it is not filed with the NAIC. The AOS must disclose the range if a range has been calculated as part of the actuary's analysis; this is not optional.

(d) Describe the other types of opinions.

- Deficient or Inadequate – Stated reserve is less than the minimum amount that the actuary believes is reasonable.
- Redundant or Excess – Stated reserve is greater than the maximum amount that the actuary believes is reasonable.
- Qualified Opinion – When the reserves for a certain item in the scope cannot be reasonably estimated or the actuary is unable to render an opinion on certain items and the item in question is likely to be material.
- No Opinion – When the actuary cannot reach a conclusion due to deficiencies or limitations in the data, analyses, assumptions, or related information.

(e) Explain what the actuary should determine from the most recent prior opinion.

- Whether the current assumptions, procedures, or methods differ from those employed in providing the most recent prior opinion.
- If they differ, the actuary should consider whether the changes are likely to have had a material effect on the actuary's unpaid claim estimate.

17. Learning Objectives:

2. The candidate will understand the analysis of a general insurer's financial health through prescribed formulas, ratios and other solvency regulation methods.

Learning Outcomes:

(2d) Discuss the Canadian Minimum Capital Test and the Canadian Dynamic Capital Adequacy Test.

(2e) Understand the development and principles of solvency regulation, including that in the U.S., Canada and the E.U.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 12 (Solvency Monitoring)

Commentary on Question:

This question tests the candidate's understanding of insurance risk and the DCAT.

Solution:

(a) Explain how diversification across lines of business may decrease risk for an insurer.

Commentary on Question:

There are a number of possible explanations that are valid for full credit. The model solution is an example of a full credit response.

Overly specialized insurers are vulnerable to market changes in a line of business. Diversification by line of business may decrease risk because market changes in a line of business will only affect a portion its policies.

(b) Explain how diversification across lines of business may increase risk for an insurer.

Commentary on Question:

There are a number of possible explanations that are valid for full credit. The model solution is an example of a full credit response.

Diversification into markets where a firm has no expertise is risky as it will compete against specialized insurers with greater expertise in that market.

(c) Describe the two conditions that must be met for an insurer to be considered to have a satisfactory financial condition through the forecast period.

1) Assets are greater than liabilities for the base scenario and all plausible adverse scenarios.
2) The supervisory target capital level is met for the base scenario.

18. Learning Objectives:

1. The candidate will understand the elements of financial reporting for general insurance companies.

Learning Outcomes:

(1a) Understand and apply the concepts of insurance accounting.

(1b) Understand and compare different financial reporting standards for general insurers including: U.S. Statutory Account Principles (SAP), U.S. Generally Accepted Accounting Principles (GAAP), Canadian Generally Accepted Accounting Principles (CGAAP), Solvency II and International Financial Reporting Standards (IFRS).

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 1 (Accounting Systems for General Insurers)
- Chapter 2 (Accounting for Insurance Contracts)
- Chapter 3 (Accounting for Financial Instruments)

NAIC, Accounting Practices and Procedures Manual

- Preamble

Commentary on Question:

This question tests the candidate's understanding of basic insurance accounting concepts and certain differences between U.S. GAAP and U.S. statutory accounting principles.

Solution:

(a) Determine the incurred losses recorded in the 2015 income statement for this book of business.

Incurred losses 2015 = Ultimate at 12/31/15 – Ultimate at 12/31/14
= 90,000 – (10,000+60,000+30,000)
= –10,000

(b) Calculate the inception-to-date underwriting result as of December 31, 2015 for this book of business.

Inception-to-date underwriting result as of December 31, 2015
= total premium – total losses – total expenses
= (110,000 + 10,000) – 90,000 – (0.30 × (110,000 + 10,000))
= – 6,000

18. Continued

(c) Identify the organization that establishes and oversees:

(i) U.S. generally accepted accounting principles (GAAP)

(ii) U.S. statutory accounting principles (SAP)

Commentary on Question:
The model solution is an example of a full credit response. For (i), SEC was also acceptable. For (ii), the NAIC or insurance regulators was also acceptable.

(i) FASB oversees U.S. GAAP accounting.

(ii) State insurance departments oversee U.S. SAP.

(d) Compare the emphases of U.S. GAAP and U.S. SAP in terms of balance sheet amounts versus income statement amounts.

- U.S. GAAP emphasis is income statement for transparency of earnings and comparisons between companies.
- U.S. SAP emphasis is on balance sheet for solvency.

(e) Compare the treatment of acquisition expenses under U.S. GAAP and U.S. SAP.

- U.S. SAP recognizes acquisition expenses immediately as they are incurred.
- U.S. GAAP capitalizes the expenses by establishing an asset for prepaid expenses and amortizes the expenses over time as premiums are earned.

(f) Describe how U.S. GAAP treats expenses of preparing bids for policies that are not written.

U.S. GAAP does not consider these to be acquisition expenses and writes them off immediately as they are incurred.

19. **Learning Objectives:**

5. The candidate will be able to understand tort law and insurance law with respect to its impact on the general insurance industry.

Learning Outcomes:

(5a) Describe and interpret the key elements of tort law and the underlying principles of insurance law.

Sources:

Excerpts from Business Law for Insurance Professionals, Institutes Custom Publishing, Assignment 1 (Contract Law: Insurance Applications)

Commentary on Question:

This question tests the candidate's understanding of insurance contract law and its application to a given set of facts.

Solution:

(a) Explain whether or not Ally and Sunil's agreement satisfies the following three special characteristics that an insurance contract should have:

(i) Conditional

(ii) Utmost good faith

(iii) Indemnity

Commentary on Question:

Widely varying full credit responses are possible. The model solution is an example of a full credit solution.

(i) This is satisfied because in the agreement:

- Ally will have a claim only if the lemonade inventory has sustained a loss; and
- Ally must inform Sunil that a loss has occurred.

(ii) This is satisfied because in the agreement:

- Ally is trusting Sunil to pay for any lost inventory if a covered peril damages her lemonade stand and inventory; and
- Sunil is trusting that Ally isn't misrepresenting a material fact regarding exposures to loss.

(iii) This is satisfied because in the agreement:

- Ally will receive an amount up to total loss of lemonade inventory restoring her to the same financial position prior to the loss subject to the conditions indicated.

19. Continued

(b) Assess whether or not Sunil can establish false representation by Ally.

Commentary on Question:
Widely varying full credit responses are possible. The model solution is an example of a full credit solution.

Sunil must prove that Ally's representation of the cooler being at least half-filled with lemonade is false or misleading. Remnants in the cooler appeared to be only water supporting a case for misrepresentation.

If Sunil determines that Ally did make a false representation, Sunil must then prove the misrepresentation was material. The premium was based on Ally's word that a total loss of lemonade inventory would be 25 dollars. If Ally filled her large cooler with water and claimed a full loss of lemonade, this would be material since very little lemonade was actually lost.

Sunil should get an impartial party to examine the remaining liquid in the cooler. Since the majority of the product lost can be shown to be water, Sunil should attempt to settle on a partial loss basis due to material misrepresentation.

20. Learning Objectives:

1. The candidate will understand the elements of financial reporting for general insurance companies.

Learning Outcomes:

(1c) Describe the elements of the NAIC Annual Statement.

(1d) Complete and interpret selected pages/schedules in the NAIC Annual Statement as included in the resources.

(1e) Understand and apply the concepts of reinsurance accounting.

Sources:

General Insurance Financial Reporting Topics, Second Edition, Society of Actuaries

- Chapter 6 (Schedule F, Statutory Credit for Reinsurance)

Commentary on Question:

This question tests the candidate's understanding of Schedule F and the ability to calculate a Schedule F provision.

Solution:

(a) Determine PCB's total Schedule F provision for reinsurance.

Commentary on Question:

Different approaches can be taken to calculate the provision. The model solution uses one approach as an example of a full credit response.

B-Re: Unauthorized, not certified

- Provision = total recoverables – collateral + minimum of [20% of (overdue recoverables + amounts in dispute), collateral)]
- = 250 – (45 + 55) + minimum of [20% of (26 + 19 + 20),(45 + 55)]
- = 163

Q-Re: Authorized

- Determine if slow paying: loss recoverables more than 90 days past due (on claims not in dispute) divided by the total loss recoverables (on claims not in dispute) plus the payments received in the past 90 days
- (27 + 6) / (110 – 15 + 10) = 0.314 > 0.2, therefore Q-Re is slow paying
- Provision = the greater of 20% of the unsecured recoverables and 20% of the (loss recoverables more than 90 days past due and amounts in dispute)
- = maximum of [20% of (200 – 36), 20% of (27 + 6 + 15)]
- = 33

20. Continued

Therefore the computed provision is 196 (= 163 + 33).

The company estimates its uncollectible reinsurance recoverables as 65 (35+30). The Schedule F provision is the maximum of the computed provision and the company's estimate of uncollectible reinsurance recoverables. Therefore the Schedule F provision is as computed, 196.

(b) Determine PCB's U.S. GAAP provision for uncollectible reinsurance.

GAAP provision is equal to PCB's estimate of uncollectible reinsurance recoverables, which is 35+30 = 65.

(c) Explain how Schedule F – Part 9, *Restatement of Balance Sheet to Identify Net Credit for Reinsurance*, can be used to assess the financial strength of an insurer.

Commentary on Question:
The model solution is an example of a full credit solution.

Part 9 shows how much of statutory surplus is contributed by reinsurance. This reveals the company's exposure to counterparty risks and potential reliance on reinsurance to pass IRIS tests.

21. Learning Objectives:

4. The candidate will be able to describe the current and historical regulatory environment.

Learning Outcomes:

(4d) Discuss market conduct regulation.

Sources:

Insurance Regulation, The Institutes

- Chapter 7 (Underwriting Regulation)
- Chapter 10 (Producer Regulation)

Commentary on Question:

This question tests the candidate's understanding of underwriting and producer regulation.

Solution:

(a) Identify four activities by an insurer that would be investigated as a violation in a state's department of insurance market conduct examination of underwriting.

Commentary on Question:

There are many activities that would be investigated as a violation. Only four were required for full credit. The model solution is an example of a full credit solution.

- Discriminating unfairly in risk selection according to applicable legal requirements
- Misclassifying risks
- Canceling (or non-renewing) policies contrary to applicable legal requirements
- Using underwriting rules (or rates) that are not on file with or approved by the appropriate DOI

(b) Describe the fiduciary responsibility of an insurance producer to a policyholder in an insurance transaction.

There is a duty to be honest and forthright with the policyholder. Any premiums collected from the policyholder must be protected and paid to the insurers in a timely manner to ensure that the policyholder has valid coverage.

(c) Describe the practice of twisting by insurance producers.

Twisting is a producer's illegal misrepresentation that convinces a customer to cancel one policy and purchase another policy that is detrimental to the customer.

21. Continued

(d) Identify two reasons for the suspension, revocation or nonrenewal of a producer's license by a state using the NAIC's Producer Licensing Model Act.

Commentary on Question:
There are a number of reasons. Only two were required for full credit. The model solution is an example of a full credit solution.

- materially untrue statement in license application
- cheating on a license examination