



Exam GIFREU

AFTERNOON SESSION

Date: Thursday, November 1, 2018

Time: 1:30 p.m. – 3:45 p.m.

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This afternoon session consists of 9 questions numbered 14 through 22 for a total of 40 points. The points for each question are indicated at the beginning of the question. No questions pertain to the Case Study.
2. Failure to stop writing after time is called will result in the disqualification of your answers or further disciplinary action.
3. While every attempt is made to avoid defective questions, sometimes they do occur. If you believe a question is defective, the supervisor or proctor cannot give you any guidance beyond the instructions on the exam booklet.

Written-Answer Instructions

1. Write your candidate number at the top of each sheet. Your name must not appear.
2. Write on only one side of a sheet. Start each question on a fresh sheet. On each sheet, write the number of the question that you are answering. Do not answer more than one question on a single sheet.
3. The answer should be confined to the question as set.
4. When you are asked to calculate, show all your work including any applicable formulas.
5. When you finish, insert all your written-answer sheets into the Essay Answer Envelope. Be sure to hand in all your answer sheets because they cannot be accepted later. Seal the envelope and write your candidate number in the space provided on the outside of the envelope. Check the appropriate box to indicate morning or afternoon session for Exam GIFREU.
6. Be sure your written-answer envelope is signed because if it is not, your examination will not be graded.

****BEGINNING OF EXAMINATION****

**Afternoon Session
Beginning with Question 14**

- 14.** (3 points) You are given the following ceded reinsurance information for Big Dog General (BDG) as of December 31, 2017. Amounts in the tables are taken from BDG’s Schedule F exhibits and are in thousands.

Reinsurer	Authorized	Reinsurance Recoverable on Paid Losses and Paid Loss Adjustment Expenses					Amounts in Dispute
		Current	Overdue				
			1 to 29 Days	30 to 90 Days	91 to 120 Days	Over 120 Days	
PQ Re	YES	46	15	24	30	25	0
UV Re	NO	40	23	30	25	12	5

Reinsurer	Amounts Received Prior 90 Days	Known Case Loss & LAE Reserves	IBNR Loss & LAE Reserves	Unearned Premiums	Funds Held by Company Under Reinsurance Treaties	Letters of Credit
PQ Re	9	48	24	28	150	0
UV Re	8	55	19	0	16	85

- Both reinsurers are based in the U.S. and are not affiliated with BDG.
- UV Re is not a certified reinsurer.
- *Amounts in Dispute* are included in the amounts shown for *Reinsurance Recoverable on Paid Losses and Paid Loss Adjustment Expenses*.
- None of the amounts in dispute are overdue.
- BDG’s management estimates the following uncollectible loss recoverables:
 - 5,000 from PQ Re; and
 - 15,000 from UV Re.

Determine BDG’s total Schedule F provision for reinsurance for the 2017 Annual Statement.

15. (5 points)

- (a) (1 point) Explain why flood risk is generally considered uninsurable without government involvement.

In the U.S., the National Insurance Flood Plan (NFIP) was created by the federal government to provide flood insurance.

- (b) (0.5 points) State two purposes of the NFIP other than to provide flood insurance.
- (c) (1 point) Describe a significant problem created by the NFIP's approach to extreme catastrophic events.

In Canada, the government is not involved in the provision of flood insurance. Flood insurance must be obtained in the private insurance market.

- (d) (1 point) Explain why homeowners insurance in Canada generally proved inadequate during the 2013 Calgary catastrophic flooding event.

In France, the government supports payments for catastrophic floods.

- (e) (1.5 points) Describe the French government's mechanism and conditions for these payments.

16. (5 points)

- (a) (1 point) Compare the meaning of the following two attributes of an insurer's booked reserves:
 - (i) Sufficiency
 - (ii) Soundness
- (b) (2 points) Compare the calculation of sufficient reserves in a Canadian insurer's Appointed Actuary's Report (AAR) to that in a U.S. Statement of Actuarial Opinion (SAO).
- (c) (1 point) Compare what is required, if anything, for an actuarial peer review of opinions in the U.S. and Canada.

The Dynamic Capital Adequacy Test (DCAT) is one of the responsibilities of the Appointed Actuary for an insurance company operating in Canada.

- (d) (1 point) Compare the purpose of the DCAT to the purpose of the actuarial reserve opinion.

17. (5 points) New Fifth Avenue Insurance (NFAI), a U.S. general insurer, writes a commercial insurance policy with the following attributes:

- Effective June 15, 2017;
- Annual, unsecured policy with a large deductible feature;
 - Insurer pays each claim and then seeks a deductible recovery, up to 250,000 for each claim, from the insured.
- Deposit premium of 2,400,000, paid in four equal installments of 600,000: due June 15, 2017, September 15, 2017, December 15, 2017 and March 15, 2018;
- Audit premium is determined after policy expiry: due July 15, 2018;
- The agent for NFAI is QCA, an agency bill operation (i.e., the insured pays premium to QCA, then QCA remits premium, less commissions due, to NFAI);
- QCA is paid an agents' commission of 20% (of the total annual deposit premium) on the policy effective date.

- (a) (1.5 points) Provide NFAI's accounting entries for this policy on June 15, 2017 under U.S. GAAP if QCA did not remit the premium it owed on that date.
- (b) (1 point) Describe how the accounting entries provided in part (a) would differ under U.S. statutory accounting.

Assume the following:

- QCA remitted payment to NFAI for the June 15, 2017 installment when it was due;
 - No other amounts were remitted to NFAI by QCA in 2017;
 - At policy inception, NFAI anticipated receiving an additional 100,000 in audit premiums for this policy.
- (c) (1.5 points) Determine the admitted and non-admitted amounts for the following assets of NFAI as related to this policy on December 31, 2017 under U.S. statutory accounting:
- (i) Agents' balances
 - (ii) Premium receivables

At the end of the policy period, NFAI paid a claim of 260,000 but it has not yet billed the insured for deductible reimbursement.

- (d) (1 point) Explain how NFAI should account for the deductible reimbursement receivable at the end of the policy period under U.S. statutory accounting.

18. (4 points) There are three categories of product defects that can lead to legal action in a lawsuit. One of these categories is “failure-to-warn.”

(a) (1 point) Describe the two other categories of product defects.

The case of *Wyeth v. Levine* involved a claim of failure-to-warn. Levine brought both common law negligence and strict liability claims against Wyeth.

(b) (2 points) Explain the main difference between the application of strict liability and negligence to a tort law case.

In *Wyeth v. Levine*, the defendant argued before the Supreme Court of the U.S. that federal law should pre-empt state law regarding warning labels. The defendant used a warning label approved by U.S. Food and Drug Administration (FDA) and did not have pre-approval of the FDA to strengthen the warning.

(c) (1 point) Explain the ruling of the Supreme Court of the U.S. regarding this argument.

19. (4 points)

- (a) (1.5 points) Define the following ratios for a general insurer:
 - (i) Operating margin
 - (ii) Underwriting leverage ratio
- (b) (2 points) Explain why the following operating margin strategies are typically used by general insurers:
 - (i) High-volume/low-margin for personal lines policies
 - (ii) Low-volume/high-margin for commercial lines policies
- (c) (0.5 points) State the expected range of leverage ratios for the following types of general insurers:
 - (i) Personal lines writers
 - (ii) Commercial lines writers

20. (6 points)

- (a) (2 points) Describe the following items related to the three Pillars of Solvency II:
- (i) Three key valuation principles under Pillar I.
 - (ii) The Ladder of Intervention under Pillar I.
 - (iii) Two functions of an insurer that are required to have established policies and procedures under Pillar II.
 - (iv) One element of public disclosure under Pillar III.
- (b) (1 point) Explain the difference between principles-based and rules-based regulation.

A guaranty fund is a state system to pay the claims of insolvent insurers.

- (c) (0.5 points) Explain how guaranty funds can reduce market discipline.
- (d) (0.5 points) Describe how guaranty funds can increase the amount of risk assumed by insurers.

State laws establishing guaranty funds generally follow the NAIC's Post-Assessment Property and Liability Insurance Guaranty Association Model Act. The model act includes a number of guaranty fund limitations on claim payments which apply in addition to the original policy terms. One of these limitations is the *large net worth deductible*.

- (e) (1 point) Explain the purpose of including the *large net worth deductible* in the model act.

Most general insurance policies are covered by a state guaranty fund if issued by insurers licensed to transact insurance in that state. However, certain lines of business are almost always excluded because the model act includes a *lines covered* limitation.

- (f) (1 point) Identify four policy types that are almost always excluded.

21. (5 points) As part of an annual rating agency review, a rating agency requested that U.S. general insurer Y-Risk-It Insurance provide it with the following information based on Schedule P Part 1 for all lines combined.

Item I. A comparison by accident year (AY) between the developed gross (i.e., direct and assumed) ultimate loss ratios reported in the 2017 Annual Statement (AS) and the initial gross ultimate loss ratio reported for the corresponding AYs. Note: Initial refers to the AY estimate at 12 months of development.

Item II. A reconciliation between the net paid loss and loss adjustment expenses (L&LAE) shown in the 2017 AS statement of income for the current calendar year and Schedule P Part 1.

Assume there have been no loss portfolio transfers, reinsurance commutations, change in pooling arrangements or mergers & acquisitions since the inception of Y-Risk-It.

- (a) (1.5 points) Explain how to derive the loss ratios from the Schedule Ps as requested in Item I for all individual AYs from 2008 to 2017.
- (b) (1.5 points) Explain what the rating agency could gain from a review of Item I.
- (c) (1 point) Describe potential limitations from the rating agency review of Item I.
- (d) (1 point) Explain how to derive net paid L&LAE using Schedule P Part 1 as requested in Item II.

22. (3 points) The following federal entities were created in the U.S. through the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank):

- (i) Financial Stability Oversight Council (FSOC)
- (ii) Federal Insurance Office (FIO)
- (iii) Bureau of Consumer Financial Protection (BCFP)

Describe two responsibilities of each entity.

****END OF EXAMINATION****
Afternoon Session

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