Exam 6C

Exam 6-Canada

Regulation and Financial Reporting
(Nation Specific)

October 23, 2018

4 HOURS

INSTRUCTIONS TO CANDIDATES

1. This 71.25 point examination consists of 30 problem and essay questions.

2. For the problem and essay questions, the number of points for each full question and part of a question is indicated at the beginning of the question or part. Answer these questions on the lined sheets provided in your Examination Envelope. Use <u>dark</u> pencil or ink. Do not use multiple colors or correction fluid/tape.

   - Write your Candidate ID number and the examination number, 6C, at the top of each answer sheet. For your Candidate ID number, four boxes are provided corresponding to one box for each digit in your Candidate ID number. If your Candidate ID number is fewer than 4 digits, begin in the first box and do <u>not</u> include leading zeroes. Your name, or any other identifying mark, must not appear.

   - Do not answer more than one question on a single sheet of paper. <u>Write only on the front lined side of the paper</u> – **DO NOT WRITE ON THE BACK OF THE PAPER**. Be careful to give the number of the question you are answering on each sheet. If your response cannot be confined to one page, please use additional sheets of paper as necessary. Clearly mark the question number on each page of the response in addition to using a label such as "Page 1 of 2" on the first sheet of paper and then "Page 2 of 2" on the second sheet of paper.

   - The answer should be concise and confined to the question as posed. <u>When a specified number of items are requested, do not offer more items than requested.</u> For example, if you are requested to provide three items, only the first three responses will be graded.

   - <u>In order to receive full credit</u> or to maximize partial credit on mathematical and computational questions, you must clearly outline your approach in either verbal or mathematical form, showing calculations where necessary. Also, you must clearly <u>specify any additional assumptions</u> you have made to answer the question.

CONTINUE TO NEXT PAGE OF INSTRUCTIONS
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3. Do all problems until you reach the last page of the examination where "END OF EXAMINATION" is marked.

   All questions should be answered according to the Canadian statutory accounting practices and principles, unless specifically instructed otherwise. SAP refers to Statutory Accounting Principles, and GAAP refers to Generally Accepted Accounting Principles.

4. Prior to the start of the exam you will have a **fifteen-minute reading period** in which you can silently read the questions and check the exam booklet for missing or defective pages. A chart indicating the point value for each question is attached to the back of the examination. Writing will NOT be permitted during this time and you will not be permitted to hold pens or pencils. You will also not be allowed to use calculators. The supervisor has additional exams for those candidates who have defective exam booklets.

5. Your Examination Envelope is pre-labeled with your Candidate ID number, name, exam number and test center. Do not remove this label. Keep a record of your Candidate ID number for future inquiries regarding this exam.

6. Candidates must remain in the examination center until two hours after the start of the examination. The examination starts after the reading period is complete. You may leave the examination room to use the restroom with permission from the supervisor. To avoid excessive noise during the end of the examination, candidates may not leave the exam room during the last fifteen minutes of the examination.

7. At the end of the examination, place all answer sheets in the Examination Envelope. Please insert your answer sheets in your envelope in question number order. Insert a numbered page for each question, even if you have not attempted to answer that question. Nothing written in the examination booklet will be graded. Only the answer sheets will be graded. Also place any included reference materials in the Examination Envelope. BEFORE YOU TURN THE EXAMINATION ENVELOPE IN TO THE SUPERVISOR, BE SURE TO SIGN IT IN THE SPACE PROVIDED ABOVE THE CUT-OUT WINDOW.

8. If you have brought a self-addressed, stamped envelope, you may put the examination booklet and scrap paper inside and submit it separately to the supervisor. It will be mailed to you. Do not put the self-addressed stamped envelope inside the Examination Envelope. Interoffice mail is not acceptable.

   If you do not have a self-addressed, stamped envelope, please place the examination booklet in the Examination Envelope and seal the envelope. You may not take it with you. Do not put scrap paper in the Examination Envelope. The supervisor will collect your scrap paper.

   Candidates may obtain a copy of the examination from the CAS Web Site.

   All extra answer sheets, scrap paper, etc. must be returned to the supervisor for disposal.

9. Candidates must not give or receive assistance of any kind during the examination. Any cheating, any attempt to cheat, assisting others to cheat, or participating therein, or other improper conduct will result in the Casualty Actuarial Society and the Canadian Institute of Actuaries disqualifying the candidate's paper, and such other disciplinary action as may be deemed appropriate within the guidelines of the CAS Policy on Examination Discipline.

10. The exam survey is available on the CAS Web Site in the "Admissions/Exams" section. Please submit your survey by November 6, 2018.

END OF INSTRUCTIONS

1. (2.25 points)

    a. (0.75 point)

       Identify three insurance contract matters under provincial legislation.

    b. (0.75 point)

       Identify three insurance transaction matters under provincial legislation.

    c. (0.75 point)

       The federal government is studying the possibility of replacing all private and provincial automobile insurers by a single crown corporation. Evaluate the viability of this proposition.

2. (1.5 points)

   a. (0.5 point)

      As a result of the decision made by the Judicial Committee of the Privy Council on the 1910 Federal Insurance Act, describe the two ways in which a domestic Canadian insurance company can operate in more than one province.

   b. (1 point)

      Briefly describe four aspects considered by Canada's Minister of Finance in determining whether letters patents should be issued for the incorporation of an insurance company.

3. (2.5 points)

   a. (2 points)

      Briefly describe four rate regulatory approaches used in Canada. For each approach, identify a province where it is used.

   b. (0.5 point)

      Briefly describe two advantages of the flex rating regulatory approach.

4. (1.5 points)

   A Transportation Network Company (TNC) driver in Alberta was in an accident. The TNC is insured under a Standard Policy Form 9 (SPF9) with the following features:

   - $5,000,000 Third Party Liability (TPL) limit
   - $1,000 deductible on physical coverage

   The driver incurred a claim of $1,500,000 of TPL and $35,000 of physical damage.

   Under each of the following situations, identify the insurer(s) to which the driver should report the claim and the amount the SPF9 insurer would pay.

   a. (0.75 point)

      The driver has logged onto a TNC network for the purpose of providing transportation services but has not yet accepted a ride request.

   b. (0.75 point)

      The driver has accepted a ride request and is en route to pick up passenger(s).

5. (3 points)

    a. (1 point)

       Contrast the current automobile insurance injury compensation system in British Columbia with the one in Ontario.

    b. (0.5 point)

       Briefly describe two initiatives to address the failings of the current automobile insurance injury compensation system in British Columbia.

    c. (0.5 point)

       Briefly describe two concerns with the current automobile insurance injury compensation system in Ontario.

    d. (1 point)

       Describe a recommendation to address each concern identified in part c. above.

6. (1 point)

   Justify whether each of the following situations are permitted by the Ontario regulator.

   a. (0.25 point)

      The insurer cancelled the automobile policy of an insured at renewal after learning that the insured is without employment.

   b. (0.25 point)

      An insurer declined to renew a policy of automobile insurance based on the individual data of an insured participating in a Usage-Based Insurance program.

   c. (0.25 point)

      An insurer used the data of an insured participating in a Usage-Based Insurance program to investigate a suspicious automobile claim.

   d. (0.25 point)

      An insurer declined to renew a policy of automobile insurance after the insured was convicted of criminal drunk driving.

7. (1 point)

Fully discuss the requirements when designing a consent request for the use of credit information for personal insurance.

8. (2 points)

In each of the following scenarios, explain a likely outcome for the insurance company and cite any relevant precedent used to support the conclusion drawn.

a. (1 point)

A journalist is insured by a $500,000 limit professional liability policy with a primary insurer and a $5.5 million excess professional liability policy from an excess insurer. The journalist is being sued for $4 million for defamation after an article he wrote. The excess insurer is denying the payment of defense costs. The primary insurer sues the excess insurer claiming it has a duty to defend.

b. (1 point)

An insurer received notice of a third party claim resulting from pollutants arising out of an insured fire that occurred at its British Columbia premises where the insured conducted its business. The insurer is denying the duty to defend, since pollutants are excluded from the policy. The insured sues the insurer for denying its duty to defend.

9. (1.75 points)

   a. (0.75 point)

   Explain the need for tort reforms in relation to class action lawsuits.

   b. (1 point)

   Briefly describe four reforms to jury services that should improve the litigation system.

10. (1.5 points)

Contrast three elements of the automobile risk sharing pool mechanisms between Ontario and Alberta.

11. (3 points)

    a. (2 points)

       For each of the following types of flood insurance programs, briefly describe two advantages and two disadvantages:

         i.   Public and mandatory
        ii.   Private and voluntary

    b. (1 point)

       Briefly describe four variables that increase flood insurance take-up rates.

12. (2.25 points)

a. (0.25 point)

Briefly describe the purpose of probable yield tests.

b. (0.5 point)

Briefly describe the following two elements incorporated in the final premium rates for AgriInsurance programs:

    i.   Reinsurance load
    ii.   Self-sustainability load

c. (1.5 points)

Briefly describe the process of self-sustainability assessment in terms of:

    i.   Type of simulation
    ii.   Length of the financial position projection
    iii.   Two possible adverse scenarios under testing
    iv.   The criteria of self-sustainability for all scenarios

13. (1.75 points)

The following information is available for two property and casualty insurance companies operating in Canada as at December 31, 2017. All amounts are in thousands of dollars ($000s).

Direct Written Premium for PACICC Protected Policies	Alberta	Other Jurisdictions	Total
Company A	200,000	100,000	300,000
Company B	100,000	0	100,000
Total Participating Insurers	10,000,000	20,000,000	30,000,000

- Amount advanced by PACICC to and on behalf of insureds of Company B: 100,000
- Amount recovered by Company B from third parties after liquidation: 50,000

a. (0.75 point)

Identify three main causes of property and casualty insurer insolvency in Canada.

b. (1 point)

Calculate the annual PACICC assessment to be borne by Company A.

14. (1.75 points)

    a. (0.5 point)

    Briefly describe two reasons why terrorism risk could be considered uninsurable.

    b. (0.75 point)

    Briefly describe the loss-sharing role of the government under the Terrorism Risk Insurance Act (TRIA) for small, medium, and large insured losses.

    c. (0.5 point)

    Other than through TRIA, briefly describe two other potential government solutions to insure terrorism risk.

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15. (4.25 points)

The following information is available for a property and casualty insurance company as at December 31, 2017. All amounts are in thousands of dollars ($000s).

Direct unearned premium	85,000
Assumed unearned premium	0
Ceded unearned premium	2,500
Expected reinsurance premium	2,500
Selected undiscounted loss ratio (% premium)	84.0%
ULAE	2,000
Maintenance expense ratio (% gross premium)	2.5%
Contingent commission rate (% gross premium)	0.0%
Premium liabilities risk factor	15.0%
Margin required for unpaid claims	12,000
Margin required for catastrophe	0
Margin required for interest rate risk	2,000
Margin required for credit risk	5,000
Margin required for operational risk	9,504
Capital available	80,000
Long common shares exposure amount	45,000
Common shares risk factor	30.0%
Foreign exchange risk factor	10.0%
Discount rate	3.0%
Correlation factor between asset risk margin and insurance risk margin	50.0%

Foreign exchange risk (30.66):

	Net Long Position
U.S. Dollar	14,750
Euro	7,000

Reinsurance ceded to unregistered reinsurers (70.60B):

	Unearned Premium	Outstanding Losses Recoverable	Reinsurance Receivable	Reinsurance Payable	Total Reinsurance Collateral
Reinsurer ABC	1,500	1,500	0	2,000	1,000
Reinsurer XYZ	500	750	300	0	1,200

The cumulative payment pattern is as follows:

Age (months)	12	24	36
% cumulative paid	84%	97%	100%

Calculate the Minimum Capital Test (MCT) ratio.

16. (4.75 points)

The following information is available for a property and casualty insurance company's
P&C-1. All amounts are in thousands of dollars ($000s).

Page 20.10 Asset	2017	2016
Recoverable from Reinsurers		
Unearned Premiums	n/a	1,200
Unpaid Claims and Adjustment Expenses	A	1,760
Total Investments including cash	30,000	25,000

Page 20.20 Liabilities and Equity	2017	2016
Unearned Premiums	J	3,000
Unpaid Claims and Adjustment Expenses	B	4,477

Page 20.30 Statement of Income	2017	2016
Net Premium Written	16,000	15,000
Net Premium Earned	15,800	n/a
Gross Claims and Adjustment Expenses	C	n/a
Reinsurers' share of claims and adjustment expenses	D	n/a
Net Claims and Adjustment Expenses	E	n/a
Net Investment Income	1,800	n/a

Page 60.41 Net Claims and Adjustment Expenses Run-Off - Discounted		2016	2017	2017 & prior
2016	UCAE, end of year	1,200		
	IBNR, end of year	1,517		
2017	Paid during year	F	n/a	n/a
	UCAE, end of year	900	n/a	2,100
	IBNR, end of year	1,159	n/a	K
	Investment Income from UCAE & IBNR	G		
	Amount: excess (deficiency)	n/a		
	Ratio: excess (deficiency)	H		

Payment Pattern	
Year 1	20%
Year 2	30%
Year 3	50%

Cumulative Paid Losses

Accident Year	Development Month 12	24
2016	1,000	3,000
2017	1,000	

Undiscounted Unpaid

Accident Year	Development Month 12	24
2016	n/a	3,000
2017	4,000	

- The company purchases quota share reinsurance. The percentage retained by the company is 60%.
- Claims development margin for adverse deviation (MfAD): 15%
- Reinsurance recovery MfAD: 2%
- Investment return MfAD: 0.75%

Bond Portfolio

Rating	Classification	Book Value	Market Value	Duration	Yield
Government	Held to Maturity	2,000	1,000	0.8	1.0%
AAA	Held to Maturity	8,000	8,000	10.0	2.0%
A	Held to Maturity	15,000	17,000	3.0	3.0%
Common Shares			5,000		10.0%

Calculate A, B, C, D, E, F, G, H, J, and K. (Note that there is no letter I.)

17. (2 points)

    a. (0.5 point)

    Define Events Not in Data (ENID) and briefly describe the purpose of ENID loading.

    b. (0.75 point)

    Identify three elements to consider when determining an ENID loading.

    c. (0.75 point)

    Briefly describe three reasons why it could be beneficial for an insurer to attempt to identify ENID.

18. (2.75 points)

A property and casualty insurance company is seeking to purchase an excess of loss reinsurance policy which contains the following features.

Inception Date	1/1/2018
Subject Premium	$20,000,000
Provisional Reinsurance Rate	14.0%
Provisional Premium	$2,800,000
Retention	$1,000,000
Limit	$10,000,000
Swing Loss Ratio	75.0%
Minimum Rate	8.0%
Maximum Rate	20.0%

- The swing rate payment is due three years after the policy's inception.
- The reinsurer's total expenses are 20% of the premium.
- Losses will be paid as they occur.
- The policy is automatically commuted after seven years unless the insurance company pays an additional maintenance fee of $175,000.
- The premium is payable in quarterly instalments throughout the first year and is subject to a 9% premium tax.

a. (1 point)

Briefly describe the four key principles of risk transfer.

b. (0.5 point)

Define "reasonably self-evident" risk transfer.

c. (1.25 points)

Briefly describe three potential risk-limiting features of this contract and two features that do not limit risk transfer.

19. (3 points)

The following Probable Maximum Loss (PML) outputs from an earthquake model are available as at December 31, 2017. All amounts are in millions of dollars.

Retention Period	Eastern Canada	Western Canada
100 years	50	200
250 years	150	400
500 years	600	800

a. (1 point)

Assuming that the company uses the phase-in formula, calculate the MCT Earthquake Reserves as at December 31, 2017.

b. (2 points)

Describe four key principles identified by Office of the Superintendent of Financial Institutions (OSFI) to assist insurers in developing prudent approaches to managing earthquake risk.

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20. (3.25 points)

The following information is available with respect to the Dynamic Capital Adequacy Test (DCAT) projections of a Canadian property and casualty insurance company. All amounts are in thousands of dollars ($000s).

Scenario 1	Actual 2017	Projected				
		2018	2019	2020	2021	2022
Net Earned Premium	3,100	3,350	3,500	3,700	3,850	4,050
Claims and Expenses	3,140	3,320	3,770	3,780	4,000	4,300
Assets	7,720	7,760	7,890	8,200	8,490	8,800
Liabilities	5,675	5,620	6,100	6,325	6,570	6,850
MCT Ratio	231%	232%	181%	175%	170%	170%

Scenario 2	Actual 2017	Projected				
		2018	2019	2020	2021	2022
Net Earned Premium	3,100	3,350	3,500	3,700	3,850	4,050
Claims and Expenses	3,140	3,320	3,450	3,560	3,715	3,950
Assets	7,720	7,760	7,780	8,000	8,375	8,715
Liabilities	5,675	5,620	5,790	6,000	6,225	6,475
MCT Ratio	231%	232%	233%	234%	235%	237%

a. (0.5 point)

Justify which of the above scenarios is more likely to be a base scenario.

b. (0.25 point)

Identify one reason why the base scenario might differ from the company's business plan.

c. (0.75 point)

Identify and justify an event which can lead to the results shown in the adverse scenario.

d. (0.75 point)

Identify three possible corrective management actions for the adverse scenario identified in part c. above.

e. (0.5 point)

Briefly describe two considerations for the Appointed Actuary (AA) when selecting the standard of materiality for the DCAT analysis.

f. (0.5 point)

Briefly describe two requirements for the insurer's financial condition to be satisfactory.

21. (1.25 points)

    a. (0.25 point)

    Describe the reason for the capital required for future premium risk being higher under the A.M. Best approach than the MCT calculation.

    b. (0.5 point)

    Identify two company characteristics that would generate a low BCAR value.

    c. (0.5 point)

    Identify one similarity and one difference between the covariance adjustment in the A.M. Best BCAR and the diversification credit in the MCT calculation.

22. (2.5 points)

A property and casualty insurance company has recently started writing an overland flood insurance coverage for personal property. The management of the company designs a stress testing program.

a. (0.5 point)

Explain how stress testing can be a key risk management tool for the insurance company's flood program.

b. (0.5 point)

Briefly describe two responsibilities of senior management in a property and casualty insurance company's stress testing program.

c. (1.5 points)

With respect to a stress testing program:

   i.   Identify two areas of focus when designing the program.
   ii. Briefly describe each area identified in part i. above.
   iii. For each area of focus identified in part i. above, provide an example of how it applies to flood insurance.

23. (3 points)

The AA of a federally regulated property and casualty insurance company is involved in the preparation of the internal and operating capital targets. Based on an analysis of past variability of the MCT ratio, the AA initially proposes to establish the internal target 40 points above the supervisory target capital ratio, resulting in an internal MCT target of 190%. The AA then reduces this estimate by 10 points to consider that the parent company could inject capital in case of financial distress, bringing the internal target to 180%. The AA finally proposes to use an operating target at the same level as the internal target (180%) as he believes that this level of capital is sufficient to cover the risks of the insurance company.

Describe four ways in which the AA likely did not follow the appropriate regulatory guidance and briefly describe what the appropriate action would have been in each instance.

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24. (4 points)

The following information is available for a property and casualty insurance company. All amounts are in thousands of dollars ($000s).

Page 20.10 Assets	2017	2016
Recoverable from Reinsurers		
Unearned Premiums	5,000	4,000
Unpaid Claims and Adjustment Expenses	8,000	7,000

Page 20.20 Liabilities and Equity	2017	2016
Unpaid Claims and Adjustment Expenses	?	132,000
Total Liabilities	280,000	255,000
Accumulated Other Comprehensive Income	2,000	1,800
Total Equity	?	75,000

Page 20.30 Statement of Income	2017	2016
Net Premium Written	100,000	90,000
Net Premium Earned	90,000	80,000
Ceded Premium Written	10,000	9,000
Ceded Premium Earned	8,900	7,900
Net Claims and Adjustment Expenses	60,000	52,000
Underwriting Income (Loss)	11,000	(20,000)
Realized Gains (Losses)	500	1,000
Net Investment Income	2,500	(3,000)
Other Revenue and Expenses	1,100	1,000
Total Income Taxes	4,200	(20,000)

Page 30.61 MCT Ratio	2017	2016
Total Capital Available	74,000	66,000
Total Capital Required at Target	38,000	32,000

From other pages	2017	2016
Net Paid Losses	42,000	35,000

The company has established its internal MCT target at 220%. The company does not pay any dividend in 2017.

<< QUESTION 24 CONTINUED ON NEXT PAGE >>

a. (1 point)

Calculate the following:

    i.   Net income (loss) for fiscal year 2017
    ii.   Total equity as of December 31, 2017
    iii.   MCT ratio as of December 31, 2017
    iv.   Net unpaid claims and adjustment

b. (2 points)

Calculate each of the following key financial indicators as of December 31, 2017:

    i.   Return on revenue
    ii.   Return on equity
    iii.   Net loss reserves to equity
    iv.   Overall net leverage

c. (1 point)

Using the information provided and the ratios calculated in parts a. and b. above, comment on the financial health of the company as at December 31, 2017.

25. (4 points)

The following information is available for a property and casualty insurance company's MCT as at December 31, 2017. All amounts are in thousands of dollars ($000s).

Minimum Capital Test	2017
Total Capital Available	60,000
Capital Required at Target:	
Insurance Risk	25,000
Market Risk	12,500
Credit Risk	3,500

Premiums Written in the Past 12 Months	Direct	Assumed	Ceded
Personal Property	100,000	5,000	7,500
Automobile – Liability and Personal Accident	205,000	15,000	20,000
Risk Factor	2.5%	1.75%	2.5%

Other information:

- The correlation factor between the asset risk and the insurance risk is 50%.
- The growth in gross premium written in the past 12 months is 25% and the risk factor for premium growth is 2.5%.
- The company does not have intra-group pooling arrangements.
- The risk factors applied to total capital required, before the operational risk margin and diversification credit, for the calculation of the operational risk margin is 8.5%.
- The operational risk cap factor is 30%.

a. (1.75 points)

Calculate the MCT ratio.

b. (0.25 point)

Briefly discuss whether this company would trigger an early warning intervention from OSFI.

c. (2 points)

Briefly discuss four ways in which the Own Risk and Solvency Assessment (ORSA) is a better management tool for the Board of Directors than the MCT.

26. (1 point)

Justify whether each of the following propositions is accurate.

a. (0.25 point)

MfADs should be the same for premium and claim liabilities.

b. (0.25 point)

The MCT calculation considers diversification benefits between and within all risk components.

c. (0.25 point)

If there is a premium deficiency, the booked Deferred Policy Acquisition Expenses (DPAE) must be 0.

d. (0.25 point)

Flood insurance is not taken into account in the MCT calculation.

27. (2.75 points)

A property and casualty insurance company holds the following bonds. All amounts are in thousands of dollars ($000s). Assume there is no tax impact on the balance sheet.

Bond	Classification	Amortized value at 12/31/2016	Market value at 12/31/2016	Coupon received in 2017	Amortized value at 12/31/2017	Market value at 12/31/2017
A	Held to maturity	2,500	3,000	150	2,800	3,300
B	Available for sale	3,500	3,000	200	3,200	3,500
C	Held for trading	5,000	4,900	500	5,000	5,500

a. (1 point)

Calculate the impact of holding these investments on net income and other comprehensive income in 2017.

b. (0.75 point)

For each bond separately, briefly describe the effect of a market rate increase on the net income and other comprehensive income related to assets.

c. (0.5 point)

Describe one advantage and one disadvantage of categorizing the bond as held-to-maturity.

d. (0.5 point)

State the two conditions under which OSFI would allow federally licensed insurers to exercise the Fair Value Option.

28. (1.5 points)

Describe three ways in which the IFRS 17 accounting standard will affect the valuation of actuarial liabilities starting on January 1, 2021.

29. (2 points)

a. (0.5 point)

Define subsequent event according to the Canadian Institute of Actuaries (CIA) Standards of Practice.

b. (1.5 points)

The AA of a company is valuing policy liabilities as at December 31, 2017. The report date is February 12, 2018. For each of the following scenarios, briefly discuss the actions that the AA should take.

i. 30% of the company's gross claims liabilities are ceded to a reinsurer that becomes insolvent on January 15, 2018. The AA is aware of the insolvency on January 24, 2018. The insolvency is due to the gradual deterioration in the reinsurer's financial circumstances.

ii. The AA receives notice on February 6, 2018 that the previously reported losses experienced a large change in value due to large loss events. The change in value was recorded in the insurance claims database in mid-January.

30. (2.5 points)

   a. (1 point)

      Briefly describe four qualifications for a Fellow of the CIA to act as the AA of a federally regulated insurance company.

   b. (1 point)

      Describe the AA's duty to report to:

      i.   The directors of the insurance company
      ii. The officers of the insurance company

   c. (0.5 point)

      In the event of the resignation of an AA, describe the responsibilities of the following:

      i.   The resigning AA
      ii. The newly appointed AA

Exam 6C
Regulation and Financial Reporting

POINT VALUE OF QUESTIONS

QUESTION	VALUE OF QUESTON	SUB-PART OF QUESTION						
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	2.25	0.75	0.75	0.75				
2	1.50	0.50	1.00					
3	2.50	2.00	0.50					
4	1.50	0.75	0.75					
5	3.00	1.00	0.50	0.50	1.00			
6	1.00	0.25	0.25	0.25	0.25			
7	1.00	1.00						
8	2.00	1.00	1.00					
9	1.75	0.75	1.00					
10	1.50	1.50						
11	3.00	2.00	1.00					
12	2.25	0.25	0.50	1.50				
13	1.75	0.75	1.00					
14	1.75	0.50	0.75	0.50				
15	4.25	4.25						
16	4.75	4.75						
17	2.00	0.50	0.75	0.75				
18	2.75	1.00	0.50	1.25				
19	3.00	1.00	2.00					
20	3.25	0.50	0.25	0.75	0.75	0.50	0.50	
21	1.25	0.25	0.50	0.50				
22	2.50	0.50	0.50	1.50				
23	3.00	3.00						
24	4.00	1.00	2.00	1.00				
25	4.00	1.75	0.25	2.00				
26	1.00	0.25	0.25	0.25	0.25			
27	2.75	1.00	0.75	0.50	0.50			
28	1.50	1.50						
29	2.00	0.50	1.50					
30	2.50	1.00	1.00	0.50				
31	0.00							
32	0.00							
33	0.00							
34	0.00							
35	0.00							
36	0.00							
37	0.00							
38	0.00							
39	0.00							
40	0.00							
41	0.00							
42	0.00							
43	0.00							
44	0.00							
45	0.00							

TOTAL 71.25

FALL 2018 EXAM 6C EXAMINER'S REPORT

The Syllabus and Examination Committee has prepared this Examiner's Report as a tool for candidates preparing to sit for a future offering of this exam. The Examiner's Report provides:

- A summary of exam statistics.
- General observations by the Syllabus and Examination Committee on candidate performance.
- A question-by-question narrative, describing where points were commonly achieved and missed by the candidate.

The report is intended to provide insight into what the graders for each question were looking for in responses that received full or nearly-full credit. This includes an explanation of common mistakes and oversights among candidates. We hope that the report aids candidates in mastering the material covered on the exam by providing valuable insights into the differences between responses that are comprehensive and those that are lacking in some way.

Candidates are encouraged to review the Future Fellows article from June 2013 entitled "Getting the Most out of the Examiner's Report" for additional insights.

EXAM STATISTICS:

- Number of Candidates: 155
- Available Points: 71.25
- Passing Score: 49.00
- Number of Passing Candidates: 49
- Raw Pass Ratio: 31.6%
- Effective Pass Ratio: 33.6%

The Syllabus and Examination Committee understands the pass ratio for this exam is lower than recent prior sittings, and as a result spent additional time analyzing the results prior to selecting the pass mark. Specifically, the committee performed an additional review of the candidates whose scores were slightly below the pass score, to gain a better understanding of the appropriateness of the pass score selected. The committee analyzed the performance by Syllabus section and question, to evaluate the reasons the candidates did not reach the pass score, specifically whether they appeared to be candidates that knew the material well but ran out of time or candidates that lost points due to misunderstanding of concepts.

Based on these additional steps, the Syllabus and Examination Committee is satisfied that the selected passing score is reasonably consistent with the standard that candidates have been held to in the past.

We understand this explanation is of little comfort to those candidates who did not achieve the passing score. We hope that the details by question provided throughout this Examiner's Report will be helpful to those candidates and future candidates. In addition, in an attempt to better assist candidates in preparing for the next sitting of this exam, the Syllabus and Examination Committee notes two specific items that caused a significant number of points to be lost on this exam:

- Based on the candidate responses to questions 17 and 28, it appears that many candidates might not have reviewed the most current Syllabus materials. Candidates are strongly encouraged to ensure they obtain and review all Syllabus materials, including new readings and any updates to existing readings.

- Candidates generally did not perform well on questions that tested multiple concepts, in particular question 16. When answering these kinds of questions, candidates are advised to attempt to solve the question in an organized, step-by-step fashion. Some candidates tried to answer by listing any material they knew related to the topic, in an unorganized fashion, and as a result provided solutions that were internally inconsistent (e.g., treating a value as being gross of reinsurance for one part of the solution, then later treating that same value as if it were net of reinsurance for another part of the solution).

GENERAL COMMENTS:
- Candidates should note that the instructions to the exam explicitly say to show all work; graders expect to see enough support on the candidate's answer sheet to follow the calculations performed. While the graders made every attempt to follow calculations that were not well-documented, lack of documentation may result in the deduction of points where the calculations cannot be followed or are not sufficiently supported.
- Incorrect responses in one part of a question did not preclude candidates from receiving up to full credit for correct work on subsequent parts of the question that depended upon that response.
- Candidates should be cognizant of the way an exam question is worded. They must look for key words such as "briefly" or "fully" within the problem. We refer candidates to the Future Fellows article from December 2009 entitled "The Importance of Adverbs" for additional information on this topic.
- Some candidates provided lengthy responses to a "briefly describe" question, which does not provide extra credit and only takes up additional time during the exam.
- Candidates should note that the sample answers provided in the examiner's report are not an exhaustive representation of all responses given credit during grading, but rather the most common correct responses.
- In cases where a given number of items were requested (e.g., "three reasons" or "two scenarios"), the examiner's report often provides more sample answers than the requested number. The additional responses are provided for educational value, and would not have resulted in any additional credit for candidates who provided more than the requested number of responses. Candidates are reminded that, per the instructions to the exam, when a specific number of items is requested, only the items adding up to that number will be graded (i.e., if two items are requested and three are provided, only the first two are graded).
- It should be noted that all exam questions have been written and graded based on information included in materials that have been directly referenced in the official Syllabus, which is located on the CAS website. The CAS takes no responsibility for the content of supplementary study

materials and/or manuals produced by outside corporations and/or individuals that are not directly referenced in the official Syllabus.

QUESTION 1	
TOTAL POINT VALUE: 2.25	LEARNING OBJECTIVE(S): A1
SAMPLE ANSWERS	

Part a: 0.75 point

Sample responses (any three of the following)
- Contents of insurance policy
- Insurable interest
- Contract taking effect
- Payment of premiums
- Duty to disclose
- Incontestability
- Reinstatement
- Designation of beneficiaries
- Insured dealing with the contract

Part b: 0.75 point

Sample responses (all of the following)
- Licensing of agents
- Unfair practices
- Claims procedures

Part c: 0.75 point

Sample 1
The federal government cannot act as such. It would be ultra-vires. Regulation of trade & commerce doesn't extend to a licensing agreement of a particular trade, as in the Insurance Reference Case.

Sample 2
This is ultra-vires for the federal government. Provincial government has the exclusive jurisdiction to regulate insurance business. Unless the provinces unanimously agree to pass all their related responsibilities to the federal government, it is not likely feasible.

EXAMINER'S REPORT

Candidates were expected to demonstrate knowledge about the division of responsibility between federal and provincial regulators.

Part a

Candidates were expected to know what insurance contract matters are under provincial legislation.

A common error was:
- Confusing the definition of contract matters vs. that of transaction matters

Part b
Candidates were expected to know what insurance transaction matters are under provincial legislation. A common error was: Confusing the definition of contract matters vs. transaction matters.
Part c
Candidates were expected to apply the conclusion of past cases to evaluate the viability of a single federally-run corporation replacing all current public and private insurers. A common error was: Not evaluating the viability of the proposition using conclusions of past cases or other relevant arguments.

QUESTION 2	
TOTAL POINT VALUE: 1.5	**LEARNING OBJECTIVE(S): A1**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample 1
- Federally incorporated insurer which has both status and capacity to operate in any province
- Incorporate in one province and obtain permission from each other province it wants to operate in

Sample 2
- Be federally incorporated
- Be provincially incorporated and have permission (license) from the other provinces it wishes to operate in

Part b: 1 point

Sample 1
- Contribution to the financial system
- Soundness of the business plan
- Level of capital to support the company
- Skill, competence and integrity of the person that will operate the business

Sample 2
- Nature and sufficiency of capital
- Soundness of business plan
- Whether the company would be in the best interest of Canadians
- In the case of a foreign company, how a Canadian company would be treated in their jurisdiction

EXAMINER'S REPORT

Candidates were expected to understand the ways in which a domestic Canadian insurance company can operate in more than one province and the aspects Canada's Minister of Finance considers before an insurance company is incorporated.

Part a

Candidates were expected to understand the ways in which a domestic Canadian insurance company can operate in more than one province.

Common errors included:
- Stating that a company could use different sales channels
- Stating that a company could be incorporated in more than one province

Part b

Candidates were expected to know the aspects Canada's Minister of Finance considers when incorporating an insurance company.

Common errors included:
- Not providing enough information, such as stating only "business plan" or "capital"
- Stating "must appoint an actuary and auditor", which is not a consideration of Canada's Minister of Finance
- Stating "company must meet the minimum capital required." A company must have more than the minimum required capital.

QUESTION 3	
TOTAL POINT VALUE: 2.5	**LEARNING OBJECTIVE(S): A2**
SAMPLE ANSWERS	

Part a: 2 points

Sample 1

- Government mandated rate: Government sets rate/rate changes or classification. (British Columbia)
- Prior approval: Regulator must approve the rates before they can be used (Ontario)
- File and use: Insurer must file rates before use. The regulator has a certain period to approve it. (Prince Edward Island)
- Open competition: Insurer can use rates without having to file or seek approval from regulator. (Yukon)

Sample 2

- Use and file: Rate must be filed with the regulator within a specific period after they are put in production. (Quebec)
- Prior approval: Rates, rate changes and classification need to be approved before they can be used. (Nova Scotia)
- File and use: Insurer must file rates. Regulator has a period to approve. If no objection, then rates can be used. (Prince Edward Island)
- Open competition: No approval for rate and rate changes. (Nunavut)

Part b: 0.50 point

Sample 1

- Less volatility in premium
- More efficient for rate changes as it does not require regulator's prior approval when rate changes are in a specific range

Sample 2

- Lower expenses related to filing (prior approval more expensive than other rate regulatory approaches)
- Reduce likelihood of premium swing.

Sample 3

- Allow consumer to have a smoother transition, less impacted by sudden rate changes
- More flexible to reflect market conditions

EXAMINER'S REPORT

Candidates were expected to demonstrate knowledge about rate regulation approaches in Canada.

Part a

Candidates were expected describe various rate regulatory approaches used in Canada and identify a province in which each approach is used.

Partial credit was awarded for identifying a rate regulatory approach not used in Canada, as the candidate would not be able to name a province that use the approach in Canada.

A common error was:
- Not correctly identifying a province in which the approach was used.

Part b

Candidates were expected to understand the advantages of the flex rating approach.

A common error was:
- Stating that no filing is required when the rate changes is within a certain range.

QUESTION 4	
TOTAL POINT VALUE: 1.5	**LEARNING OBJECTIVE(S): A2**
SAMPLE ANSWERS	

Part a: 0.75 point

Sample 1

Driver should first report claim to their "regular" insurer. If the insurer denies claim, then report claim to SPF9 insurer. There is no collision coverage when in period 1, so no indemnity for collision. TPL is limited to 1M\$ on SPF policy in period 1 so will only recover 1M\$ from SPF9 insurer.

Sample 2

Logged in but not accepted = intermediate option (period 1).
No coverage for physical damage.
\$1M limit on liability.
Should report to both.
Pay = \$1M.

Part b: 0.75 point

Sample 1

It is under period 2.
The SPF9 insurer will be the only insurer to cover TPL, COLL and AB coverage. Hence :
   Provide coverage for TPL, amount = 1,500,000
   Provide coverage for physical, amount = 35,000-1,000 = 34,000

EXAMINER'S REPORT

Candidates were expected to understand the different vehicle usage periods under a TNC policy in Alberta, as well as the policy coverage under each of these periods.

Part a

Candidates were expected to understand the TNC insurer's coverage under period 1 of vehicle usage.

Common errors included:
- Using a \$1.5M TPL limit.
- Stating physical coverage was covered.
- Not indicating which insurer to contact

Part b

Candidates were expected to understand the TNC insurer's coverage under period 2 of vehicle usage.

Common errors included:
- Not indicating which insurer to contact.
- Stating physical coverage was not covered.

QUESTION 5	
TOTAL POINT VALUE: 3	**LEARNING OBJECTIVE(S): A2**
SAMPLE ANSWERS	

Part a: 1 point

Sample 1
- In British Columbia, auto insurance is offered by the government.
- In Ontario, auto insurance is offered by private insurers.
- In British Columbia, auto insurance is litigation based.
- In Ontario, there's the recourse to sue an at-fault driver.

Sample 2
- British Columbia auto insurance is provided by ICBC.
- Ontario auto insurance is provided by private insurers.
- In British Columbia, not-at-fault drivers can sue at-fault drivers.
- Ontario auto insurance has the no-fault system.

Part b: 0.5 point

Sample 1
- Cap pain and suffering benefits
- Increase the intersections cameras for road safety

Sample 2
- Increase road safety by setting up automated speed enforcement
- Carry out interim measures such as non-insurance sources of funding

Sample 3
- Increase the effectiveness of road safety approaches
- Change pricing model to penalize higher-risk drivers

Part c: 0.5 point

Sample 1
- Insureds want to maximize their benefits rather than address their needs.
- Lawyers working on contingent cost want to boost the value of claims.

Sample 2
- Insurers focus on controlling costs instead of providing care to customers.
- Providers are paid on volume of treatments instead of results.

Sample 3
- Ontario has the most expensive premiums in Canada.
- There is a shift in the system into cash settlement instead of care.

Sample 4
- Broad legislation and prescriptive regulations create opening for disputes.
- There is a value gap, accident victims are not receiving appropriate care and take longer to recover.

Part d: 1 point

Sample 1
- The system needs to adopt a care, not a cash approach.
- Contingency fees for lawyers should be more transparent.

Sample 2
- The regulator should review regulations to make them simpler to understand and easier to apply.
- The system should focus on timely medical care, not cash settlements.

Sample 3
- The government should set up an arms-length regulator with a skills-based board.
- Simplify the benefits and make them more readily available.

EXAMINER'S REPORT

Candidates were expected to know the similarities and differences between the current auto insurance injury compensation systems in British Columbia and in Ontario and understand concerns with each of the systems.

Part a

Candidates were expected to describe the similarities and differences between the current auto insurance injury compensation systems in British Columbia and in Ontario.

A common error was:
- Providing only one element of comparison between the systems.

Part b

Candidates were expected to know initiatives that would address the failings of the current auto insurance injury compensation system in British Columbia.

A common error was:
- Providing initiatives that are not related to British Columbia current system failings.

Part c

Candidates were expected to know the concerns with the current auto insurance injury compensation system in Ontario.

Common errors included:
- Listing only one concern.

- Providing a concern unrelated to the current auto injury compensation system in Ontario.

Part d

Candidates were expected to provide a recommendation to concerns with the current auto insurance injury compensation system in Ontario.

A common error was:
- Providing a recommendation to a concern that is unrelated the current auto injury compensation system in Ontario.

QUESTION 6	
TOTAL POINT VALUE: 1	**LEARNING OBJECTIVE(S): A2**
SAMPLE ANSWERS	

Part a: 0.25 point

Sample
- Prohibited. Insurers can't use employment history for underwriting.

Part b: 0.25 point

Sample 1
- Prohibited. Insurer can't use UBI program information to refuse to renew a policy.

Sample 2
- Prohibited. Insurer can only use UBI program information for discount-setting.

Part c: 0.25 point

Sample 1
- Prohibited. Insurer can't use UBI program information for claim-related purpose.

Sample 2
- Prohibited. Insurer can only use UBI program information for discount-setting.

Part d: 0.25 point

Sample 1
- Permitted. Insurers can use conviction for underwriting.

Sample 2
- Permitted. Driving record can be used for underwriting.

EXAMINER'S REPORT

Candidates were expected to demonstrate an understanding of automobile insurance regulation in Ontario including the permitted use of variables for underwriting and the permitted use of information for claim investigation.

Part a

Candidates were expected to know that an insured's employment history cannot be used to refuse to renew a contract for a PPA in Ontario.

A common error included:
- Stating that using the employment is allowed in Ontario for a PPA

Part b

Candidates were expected to know that a UBI program cannot be used to refuse to renew a contract for a PPA in Ontario.

A common error included:
- Providing no explanation

Part c
Candidates were expected to know that a UBI program cannot be used to investigate a claim. Common errors included: • Providing no explanation • Stating that using UBI program data is permitted to investigate a claim
Part d
Candidates were expected to know that convictions can be used to refuse to renew a PPA in Ontario. Common mistakes included: • Providing no explanation • Stating that the use of convictions is prohibited for PPA in Ontario

QUESTION 7	
TOTAL POINT VALUE: 1	**LEARNING OBJECTIVE(S): A2**
SAMPLE ANSWERS	

Sample 1
- The authorization from the customer to access the credit information.
- Explain what information will be collected.
- Explain how the information will be used.
- State the consent period.

Sample 2
- Need to be clear about intent of the data collection, for example, credit score data collected that will always be used in rating should be clearly communicated in consent request.
- Need to be clear about what data is collected.
- Need to let insureds know when the users can access the data collected.
- Need to let insureds know how the data is used.

EXAMINER'S REPORT

Candidates were expected to know the key elements to be included in the credit score consent request in personal lines insurance.

Common errors included:
- Providing elements that are not required to be asked in the consent request. Many of the elements discussed in the IBC guideline for the usage of credit information are not required to be included in the consent request.
- Stating that credit information should be used only for discounting.

QUESTION 8	
TOTAL POINT VALUE: 2	**LEARNING OBJECTIVE(S): A3**
SAMPLE ANSWERS	

Part a: 1 point

Sample 1

Alie v. Bertrand Frere

Excess insurer will have to pay defense costs provided their policy follows the form of the lower limits policy, which it appears to be, and the excess insurer doesn't specifically exclude defense costs. Excess insurer has duty to defend.

Sample 2

Similar to the case Broadhurst & Ball vs. American Home Assurance, where the excess insurer Guardian was found to have to pay part of defense costs. Since the possible judgment is well into the excess coverage limits as in Broadhurst, the excess insurer may be involved in payment for this suit. Thus, it is likely that the primary insurer wins and the excess insurer will have to cover some defense costs (possibly half as in Broadhurst).

Part b: 1 point

Sample 1

Case: Precision Plating v. Axa

Insurer does not have duty to defend.

3rd party is claiming for pollutants, not fire, which is excluded from policy.

No duty to indemnify and thus, no duty to defend.

Sample 2

Precision Plating v. Axa Pacific

The insurer doesn't have duty to defend. Because the third party claim was for pollutants, not for fire, indemnification is beyond the scope of the policy. Since pollutants are excluded from the policy, there is no duty to defend since duty to defend is triggered by duty to indemnify.

EXAMINER'S REPORT

Candidates were expected to identify a case specifically applicable to the facts and circumstances provided and apply the same reasoning to arrive at the appropriate outcome.

Part a

Candidates were expected to understand the circumstances under which the excess insurer has a duty to defend based on relevant precedent cases.

Common errors included:
- Stating a case that did not specifically reference the duty to defend for excess insurers.
- Stating that there is no duty to defend by assuming defamation is excluded from the policy.

Part b
Candidates were expected to understand that although the fire is a covered peril, the third party liability claims are for pollution, which is excluded under the policy. As such, only the Precision Plating v. Axa Pacific Insurance Co. case applies. Candidates were expected to understand that the duty to defend is triggered by the duty to indemnify. Common errors included: - Stating that there is no duty to defend because pollution is an excluded peril without making the link between the duty to indemnify and the duty to defend (i.e. the duty to defend is triggered by the duty to indemnify).   - Stating that "there is no duty to defend because fire is a covered peril", which is a contradicting statement.

QUESTION 9	
TOTAL POINT VALUE: 1.75	**LEARNING OBJECTIVE(S): A4**
SAMPLE ANSWERS	

Part a: 0.75 point

Sample 1

For class action lawsuits, the victims (plaintiffs) usually do not receive a lot, whereas the lawyers receive high fees. There is imbalance between the parties. Thus, there is need to reform the class action lawsuits to more equitably balance the interests of plaintiffs and lawyers.

Sample 2

Class action lawsuits are now seen as a means to extort money from defendants. We have seen cases in which a large number of plaintiffs within the class action have meritless cases. As well, awards are seen to go in large part towards attorney fees and not to the claimants.

Part b: 1 point

Sample 1
- Eliminate occupation exemptions
- Only allow people who have true hardship to be excused from the service
- Protect employees from any adverse action from employer
- Establish a long trial fund to pay jurors who have to serve for a long trial

Sample 2
- Eliminate occupational exemptions
- Reform hardship exemptions
- Give jury more scheduling flexibility
- Increase compensation (for jury) for lengthy trials

EXAMINER'S REPORT

Candidates were expected to understand the current issues with regard to class action lawsuits and identify potential reforms related specifically to jury service.

Part a

Candidates were expected to discuss the current problems with class action lawsuits.

Common mistakes included:
- Identifying potential tort reforms rather than discussing the need for reforms related to class action lawsuits.

Part b

Candidates were expected to identify potential reforms related to jury service.

Common mistakes included:
- Many candidates listed tort reforms that were not specifically applicable to jury services.
- Simply stating that juries should be paid. Candidates needed to indicate that establishment of a trial fund should specifically be for juries serving long trials.

QUESTION 10	
TOTAL POINT VALUE: 1.5	**LEARNING OBJECTIVE(S): B2**
SAMPLE ANSWERS	

Sample 1
- Ontario has one RSP, but Alberta has the Grid and Non-Grid RSPs.
- In Ontario the ceding company retains 15% of the losses to encourage good pricing discipline. In Alberta, the entire loss is ceded to the RSPs.
- In Ontario there is a limit on the number of risks that can be ceded (5%). In Alberta there is no limit for ceding Grid risks, and there is a limit for ceding Non-Grid risks.

Sample 2
- ON – one pool; AB – Grid pool + Non-Grid pool.
- ON – participation rate based on # ceded & # not ceded to pool; AB – based on earned exposure not ceded to pool.
- ON – insurer retains 15% of ceded exposure; AB – 100% covered by pool.

Also accepted
- Ontario – individual carrier rates charged; Alberta – grid rates from regulator charged

EXAMINER'S REPORT

Candidates were expected to demonstrate their knowledge of the various risk sharing pools (RSP) operating in different provinces including limit of usage, coinsurance, and types of risks accepted.

Common errors included:
- Stating that Alberta has no limit; although the grid pool has no limit, the non-grid pool has 4% limits
- Confusing voluntary and non-ceded exposures
- Identifying "private passenger" and "non-fleet" as elements of difference.

QUESTION 11	
TOTAL POINT VALUE: 3	**LEARNING OBJECTIVE(S): B2, B3**
SAMPLE ANSWERS	
Part a: 2 points	

Sample 1

1) Public & Mandatory
   - Advantages
     - High participation rate (it's mandatory)
     - Affordable premiums (due to high uptake)
   - Disadvantages
     - Rates may not be actuarially sound (if everyone needs to participate in flood insurance, then some citizens aren't paying their risk-based share)
     - Little incentive for insureds to mitigate risk on their own
2) Private & Voluntary
   - Advantages
     - Risk-based pricing leading to fair rates
     - Policyholder can be incentivized to mitigate their own flood risks to lower their premium
   - Disadvantage
     - Adverse selection (only those who are in flood plains will buy coverage)
     - Affordability (due to voluntary participation, the premium will be very high for the insureds that need the coverage, as the costs won't be subsidized by insureds that don't need the coverage)

Sample 2

1) Advantages:
   - Mandatory insurance ensures everyone is covered and guarantees participation so enough premium will be collected to ensure availability & sustainability of program
   - Public administration will subsidize high risk and ensure affordability
   Disadvantages:
   - Government mandated pricing doesn't encourage risk control
   - Force low risk to subsidize high risks, unfair
2) Advantages:
   - Risk-based pricing will provide incentive for risk control
   - Voluntary is more accepted by public because policyholders can choose to participate or not.
   Disadvantages:
   - Voluntary insurance is subject to strong adverse selection
   - Risk-based pricing and voluntary participation will make the program unaffordable, leading to low take-up rates

Part b: 1 point

Sample 1
    • Bundling the coverage to cover multiple catastrophic events to increase participation (higher participation -> affordability)
    • Investing in accurate flood maps so risk can be priced accurately
    • Government-backed so private insurers can feel safer offering the coverage (availability)
    • Investing in infrastructure to mitigate flood risks (lower risks -> lower premiums -> increase in participation rate)
 	
Sample 2
    • Mandatory
    • Bundled
    • High risk subsidized by tax payer
    • Public administration

EXAMINER'S REPORT
Candidates were expected to understand the differences between public and mandatory vs. private and voluntary insurance plans for flood risks.
Part a

Candidates were expected to demonstrate the pros and cons of public and mandatory vs. private and voluntary insurance plans for flood risks.
 	
Common errors included:
    • Identifying tax payer burden as an advantage of government insurance
    • Confusing government insurance and government relief program

Part b

Candidates were expected to demonstrate their understanding of the six variables that have direct implications for flood insurance take-up rates.
 	
Common errors included:
    • Listing both variables that have positive and negative impact on take-up rates without specifying which one has the positive impact
    • Repeating the answers in one category: e.g. stating higher participation and affordable as two separate variables.

QUESTION 12	
TOTAL POINT VALUE: 2.25	LEARNING OBJECTIVE(S): B1, B3
SAMPLE ANSWERS	

Part a: 0.25 point

Sample 1

To ensure there is no over-insurance

Sample 2

To ensure probable yields accurately reflect the crops' long-term production capacity and the methodology doesn't result in over-insurance.

Part b 0.5 point

Sample 1
  i.   If government purchases private reinsurance, premium rate methodology can allocate the reinsurance costs to various plans via reinsurance loads
  ii. Load to replenish surplus so that plan is able to restore past deficits within reasonable time period & withstand loss volatility

Sample 2
  i.   To account for reinsurance cost when province purchase private insurance
  ii. To recover deficit and maintain a surplus level appropriate to sustain volatility in loss experience

Part c: 1.5 points

Sample 1
  i.   Fully stochastic simulation
  ii.   25 years
  iii. 1. Increase liabilities -> more liability, more loss exposure
        2. decrease liabilities -> right after CAT event, vulnerable capital position or hard to replenish surplus with given low premium
  iv.   1. The recovery from the 95th percentile fund balance deficit would occur, on average, within 15 years; and
        2. The recovery from the 95th percentile fund balance deficit would occur, with 80% probability within 25 years

Sample 2
  i.   Fully stochastic simulation
  ii.   25 years
  iii. Increase in liability = higher exposure to loss
        Adverse claim experience
  iv.   For all scenarios (base and all adverse), the recovery from 95th percentile deficit must occur on average with 15 years and with 80% probability within 25 years

EXAMINER'S REPORT
Candidates were expected to understand the production insurance program including probable yield tests, additional loadings in the final premium calculation, and the process of self-sustainability assessment.

Part a
Candidates were expected to understand the purpose of probable yield tests. A common error included: • Explaining the concept/calculation of a probable yield without explicitly mentioning the purpose.

Part b
Candidates were expected to understand the two factors incorporated in the final premium rate for a production program. Common errors included: • For the reinsurance load, not explaining that the province purchases private insurance or discussing the allocation of marginal reinsurance cost to various plans. • For the self-sustainability load, only mentioning recovery of the past deficit and not discussing building/maintaining a surplus for the future.

Part c
Candidates were expected to understand the key process of the self-sustainability assessment. For part iii., credit was given for any plausible adverse scenario such as a catastrophe. Common errors included: • Confusing the concept of "length of the financial position projection" with the concept of "self-sustainability criteria" • Not specifying recovery from the 95th percentile deficit for self-sustainable criteria

QUESTION 13	
TOTAL POINT VALUE: 1.75	**LEARNING OBJECTIVE(S): B1**
SAMPLE ANSWERS	

Part a: 0.75 point

Sample 1
- Foreign parent
- Rapid growth
- Alleged fraud

Sample 2
- Deficit loss reserve and inadequate pricing
- Foreign ownership
- Rapid growth

Part b: 1 point

Sample 1
Amount advanced: 100,000 – 50,000 = 50,000
200,000/10,000,000 = 0.02
0.02 × 50,000 = 1,000 (not capped by 1.5% of 200,000 which is 3,000)
The assessment borne by A is 1,000 (in thousands)

Sample 2
X = (amount advanced – recovery) × DWP A / DWP all (only in Alberta)
(100,000 – 50,000) × 200,000/10,000,000 = 1,000
Assessment A = min(1.5% * DWP, X) = 1,000

EXAMINER'S REPORT

Candidates were expected to understand the main causes of P&C insurer insolvency in Canada and be able to calculate the annual PACICC assessment for a company.

Part a

Candidates were expected to know the main causes of Canadian P&C insurer failure.

A common error included:
- Listing company characteristics that play a role in insolvency but were not among the main causes of Canadian P&C insurer insolvency for example, "new entrance," "poor management," or "international exposure."

Part b

Candidates were expected to know the formula for a company's annual PACICC assessment. Candidates were also expected to be able to identify and utilize the relevant jurisdiction in calculating a company's share of the shortfall.

Common errors included:
- Calculating market share using data from "other jurisdictions" or "total." The inputs to the formula should be that of the participating jurisdiction – Alberta in this case.
- Excluding DWP of company B from the market DWP. The DWP of all participating insurers of the relevant participating jurisdiction should be included in the market DWP.
- Not demonstrating that the result is less than the maximum annual levy.
- Using the total DWP for Company A to calculate the maximum instead of its DWP from the relevant participating jurisdiction.

QUESTION 14	
TOTAL POINT VALUE: 1.75	**LEARNING OBJECTIVE(S): B1, B2**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample answers (any two of the following)
- Lack of public data about probability and severity of attacks
- Not enough insureds to make losses predictable
- Terrorism cat models are very new
- Not accidental loss – criminal actions of humans

Part b: 0.75 point

Sample 1
- For a small loss, no federal sharing
- For medium-sized loss, government provides assistance up front but then recoups losses through levy on insurance policies afterwards
- For large loss, government will pay most of losses and some recoupment possible

Sample 2
- Small losses under $100MM: insurer responsible
- Medium losses: government and insurer share losses, and government spread loss over time and over entire insurance industry
- Large losses: government to pay for most of losses up to $100 billion

Part c: 0.5 point

Sample solutions (any two of the following)
- Government owned reinsurer
- Reinsurance pool
- Private insurer with government backing to offer terrorism
- CAT bonds

EXAMINER'S REPORT

Candidates were expected to demonstrate why government assistance is needed to insure terrorism risk as well as describe the roles of government involvement.

Part a

Candidates were expected to understand the difficulties in insuring terrorism risks.

Common errors included:
- Providing two reasons that fell into the same category. For example: "difficult to measure probability and severity of terrorism risk and, lack of historical data."
- Listing only one reason.

Part b
Candidates were expected to differentiate the government's role in various sizes of loss. Common errors included: • Not mentioning that the government will recoup losses for medium size risks or spread losses over time. • Indicating that the government will pay for small losses.
Part c
Candidates were expected to provide alternative government solutions to TRIA to insure terrorism risk. Common errors included: • Stating government actions that would reduce terrorism risk (e.g., tighten security) instead of insuring terrorism risk. • Not providing sufficient detail to the potential solutions.

QUESTION 15	
TOTAL POINT VALUE: 4.25	**LEARNING OBJECTIVE(S): C1**
SAMPLE ANSWERS	

Net unearned premium = 85,000 + 0 − 2,500 = 82,500
Undiscounted liabilities = (82,500 − 2,500) × 84% + 2,000 = 69,200
PV(Loss+LAE) = 69,200 × (0.84 × $1.03^{-0.5}$ + 0.13 × $1.03^{-1.5}$ + 0.03 × $1.03^{-2.5}$) × $1.03^{(0.5 - 1/3)}$ = 68,144
Premium Liabilities ex. PfAD = 68,144 + 85,000 × 2.5% + 2,500 = 72,769

Margin for Premium Liabilities = Max (72,769, 0.3 × NWP) × 15% = 10,915, assume 0.3 × NWP is smaller than 72,769 since not given.

Insurance risk = 12,000 + 10,915 + 0 + margin unregistered reinsurance

Margin unreg reins = 0.15 × (UEP + O/S) − deduction
For ABC:
deduction = Max (0, 1,000 + 2,000 − 1,500 − 1,500) = 0
margin = 0.15 × (1,500 + 1,500) − 0 = 450

For XYZ:
Deduction = Max (0, 1,200 − 500 − 750 − 300) = 0
Margin = 0.15 × (500 + 750) − 0 = 187.5

Insurance Risk Margin = 22,915 + 450 + 187.5 = 23,552.5

Market Risk = interest rate risk + foreign exchange risk + equities risk + R/E risk
= 2,000 + 0.1 × (14,750 + 7,000) + 0.3 × 45,000 + 0 = 17,675

Diversification credit = A + I − $(A^2 + I^2 + 2RAI)^{0.5}$, R = 0.5
A = 5,000 + 17,675 = 22,675
I = 23,552.5
Diversification credit = 6,191

Minimum Capital required = (23,552.5 + 22,675 + 9,504 − 6,191) / 1.5 = 33,027

MCT Ratio = 80,000 / 33,027 = 242.2%

EXAMINER'S REPORT
Candidates were expected to determine the minimum required capital using the information given in order to calculate the MCT ratio. In particular, candidates were expected to calculate the capital required for premium liabilities, capital required for unregistered reinsurance, capital required for FX risk and capital required for equity risk. In addition, candidates were expected to calculate the diversification credit.

Common errors included:
- Not interpolating the PV factor for premium liabilities
- Using gross unearned premium to determine net losses
- Ignoring the future reinsurance cost in the premium liabilities calculation
- Ignoring maintenance expenses
- Failing to perform 30%×NWP test for the margin for premium liabilities calculation
- Using Net Unearned Premium as NWP in the margin for premium liabilities calculation
- Calculating the margin for unregistered reinsurance on a combined (portfolio) basis rather than for each individual reinsurer
- Adjusting Capital Available for unregistered reinsurance (capital available was given in the question)
- Incorrectly applying the 30% cap on letters of credit to total collateral (unless assumption was specified)

QUESTION 16	
TOTAL POINT VALUE: 4.75	**LEARNING OBJECTIVE(S): C1**
SAMPLE ANSWERS	

Weight yield of bonds by duration and book value (since bonds are held to maturity):
Discount rate = (2000 × 0.8 × 1% + 8000 × 10 × 2% + 15000 × 3 × 3%) / (2000 × 0.8 + 8000 × 10 + 15000 × 3) = 2.34%

Payment pattern:

Accident Year	t = 0.5	t = 1.5
2016	3000 × 50% / (100%-50%) = 3000	0
2017	4000 × 30% / (100%-20%) = 1500	4000 × 50% / (100%-20%) = 2500
Total	4500	2500

Present value factors at 2.34% discount rate:
PVF at t=0.5 = $1.0234^{-0.5}$ = 0.9885
PVF at t=1.5 = $1.0234^{-1.5}$ = 0.9659

Discount rate with investment return MfAD = 2.34% - 0.75% = 1.59%
Present value factors at 1.59% discount rate:
PVF at t=0.5 = $1.0159^{-0.5}$ = 0.9921
PVF at t=1.5 = $1.0159^{-1.5}$ = 0.9766

Gross discounted liabilities at 2.34% = 4500 × 0.9885 + 2500 × 0.9659 = 6863.00
Gross discounted liabilities at 1.59% = 4500 × 0.9921 + 2500 × 0.9766 = 6906.18

Net discounted liabilities at 2.34% = 6863 × 60% = 4117.8

Claims PfAD = 6863 × 15% = 1029.45
Interest rate PfAD = 6906.18 – 6863 = 43.18
Reinsurance PfAD = 6863 × (1-60%) × 2% = 54.90

Gross AAP Liabilities = 6863.00 + 1029.45 + 43.18 = 7935.64
Ceded AAP Liabilities = 7935.64 × (1-60%) – 54.90 = 3119.35
Net AAP Liabilities = 7935.64 – 3119.35 = 4816.29

[A] = 3119.35
[B] = 7935.64
[C] = [B] – 2016 Gross UCAE + Gross paid during 2017 = 7935.64 – 4477 + (3000-1000) + 1000 = 6458.85
[D] = [A] – 2016 Recoverable UCAE + Ceded paid during 2017 = 3119.35 – 1760 + (1-60%) × (3000-1000+1000) = 2559.46
[E] = [C] – [D] = 3899.39
[F] = Net paid during 2017 for AY2016 = (3000-1000) × 60% = 1200

Investment yield = NII / (Beginning Total Inv + Ending Total Inv – NII) × 2 = 1800 / (25000+30000-1800) × 2 = 6.77%

[G] = 6.77% * [Average of 2016 Net (UCAE+IBNR) and 2017 Net (UCAE+IBNR)] = 6.77% × (1200+1517+900+1159)/2 = 161.59

Excess/Deficiency = 2016 Net (UCAE+IBNR) + [G] – [F] – 2017 Net (UCAE+IBNR) = 1200+1517 + 161.59 – 1200 – (900+1159) = -380.62

[H] = -380.62 / 2016 Net (UCAE+IBNR) = -380.62 / (1200+1517) = -14%

NEP = NWP – (2017 Net UEP – 2016 Net UEP)

15800 = 16000 – (2017 Net UEP – (3000-1200))

2017 Net UEP = 2000

[J] = 2000 / 60% = 3333.33

[K] = 2017 Net AAP Liabilities – 2017 Net UCAE = 4816.29 – 2100 = 2716.29

EXAMINER'S REPORT

Candidates were expected to understand the relationship across various P&C Return pages and the underlying calculations.

We note that the sample solution presented above assumes that payments are made mid-year. Solutions assuming year-end payments were also accepted.

The sample solution also assumes that the paid and unpaid triangles are gross of reinsurance. Solutions assuming triangles are net of reinsurance were also accepted, as long as the assumption is consistent throughout the response.

Common errors included:
- Using market value to calculate the discount rate
- Applying an incorrect payment pattern
- Incorrectly providing net APV and net unearned premium for B and J instead of gross values
- Not subtracting the unpaid claims and adjustment expenses as of December 31, 2016 from the calculation of C, D and E
- Providing the gross instead of net paid amount for F
- Using the discount rate instead of calculating a separate investment yield for the calculation of G
- Not subtracting IBNR as of December 31, 2017 in the calculation of K

QUESTION 17	
TOTAL POINT VALUE: 2	**LEARNING OBJECTIVE(S): C2**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample 1

ENID is event for which the insurer does not have historical data. The purpose of ENID loading is to account for the margin if those events happen.

Sample 2

ENID is a low frequency, high severity event not captured in historical data. Purpose of ENID loading to bring to the best estimate.

Part b: 0.75 point

Sample 1

- Legislative change
- Factors that could affect future settlements relating to past claim events, reported and unreported
- Factors and potential future claim events relating to the exposure remaining on business the (re)insurer is obligated to at the valuation date

Sample 2

- Catastrophe claims
- Court rulings
- Legislative changes

Part c: 0.75 point

Sample 1

- Blue sky thinking – help different functions understand risk exposure
- Can be used to help the frequency/severity method to calculating ENID
- Likely to be looked at favorably by regulators

Sample 2

- It can be used to help frequency/severity method to calculate the ENID
- The loading calculated using the frequency/severity method can be used as a check for alternative methods
- Insurers will get insight in the process, viewed favorably by the regulator

EXAMINER'S REPORT

Candidates were expected to demonstrate an understanding of the concept Events Not In Data ("ENID").

Part a

Candidates were expected to define and briefly describe ENID.

Common errors included:
- Only defining the concept but not providing the purpose.
- Only providing the purpose but not defining the concept such as stating: "The balancing amount required to bring the best estimate before ENID up to an amount to allow for all possible future outcomes."

Part b

Candidates were expected to identify key elements to consider when determining the ENID loading.

Common errors included:
- Suggesting incorrect elements such as: types of products provided, lines of business written, quality of data, management actions to mitigate risk, or investment strategy.
- Suggesting general considerations for the claims reserving process that were not specific enough to the calculation of the ENID such as quality of data, or management actions to mitigate risk.

Part c

Candidates were expected to know why it could be beneficial for a company to determine the ENID.

A common error included:
- Not responding in enough detail such as suggesting that increased potential loss awareness or minimizing loss reserving risk were reasons the ENID identification is beneficial to the insurer.

QUESTION 18	
TOTAL POINT VALUE: 2.75	**LEARNING OBJECTIVE(S): C1**
SAMPLE ANSWERS	

Part a: 1 point

Sample

- There is no one single way to assess the existence of risk transfer in every scenario
- Must consider all verbal and non-verbal agreements and conditions between insurer and reinsurer when conducting a risk transfer assessment
- Professional judgment is needed when doing a risk transfer analysis
- A risk transfer analysis must be done at inception of contract and every time a change in contract terms alters expected future cash flows

Part b: 0.5 point

Sample

It is intuitively obvious that the contract protects the cedant from future events that would adversely impact the financial condition of the ceding company.

Part c: 1.25 points

Sample responses for risk-limiting features (any 3 of the following)

- Swing loss ratio: if loss ratio higher than 75% ceding company may pay reinsurer as compensation which reduces risk transfer
- Policy is automatically commuted after seven years unless there is maintenance expense. Seven years may not be enough especially for liability.
- There is a limit on excess of loss of $10 million so higher losses not ceded (the amount of risk being transferred is limited)
- The retention level is high (10% of limit)

Sample responses for non-risk-limiting features (any 2 of the following)

- Loss is paid when it occurs
- Premium is payable in quarterly instalments
- Reinsurer expense (not included in risk transfer analysis)
- Retention does not limit transfer since severity of occurrence may be higher and can be used as a risk management tool
- Taxes, they are mandatory so should not impact existence of risk transfer

EXAMINER'S REPORT

Candidates were expected to understand risk transfer principles and briefly describe how features of a reinsurance policy would factor into a risk transfer analysis by denoting which features may limit risk transfer and which would not.

Part a

Candidates were expected to briefly describe the four key principles of risk transfer.

Common errors included:

- Not mentioning that risk transfer analysis should be done at inception

- Not mentioning that risk transfer analysis should be done every time a change in the contract alters expected future cash flows
- Not including key risk transfer principles

Part b

Candidates were expected to define "reasonably self-evident" risk transfer.

Common errors included:
- Not discussing that it was obvious that the reinsurance contract protects the cedant
- Not discussing that protection was for events that could financially harm/impact the cedant
- -

Part c

Candidates were expected to describe risk-limiting and non-risk-limiting features of a reinsurance policy.

Common errors included:
- Not providing an adequate description of a risk-limiting feature
- Misidentifying a feature as risk-limiting when it doesn't limit risk and vice versa (without proper justification)
- Mentioning features that are not related to the contract in the question (e.g., sliding scale commissions, profit sharing provisions, etc.)

QUESTION 19	
TOTAL POINT VALUE: 3	**LEARNING OBJECTIVE(S): C1, D1**
SAMPLE ANSWERS	

Part a: 1 point

Sample

East PML 420 = (420-250)/(500-250) × 600 + (500-420)/(500-250) × 150 = 456

West PML 420 = (420-250)/(500-250) × 800 × (500-420)/(500-250) × 400 = 672

Countrywide PML 500 = $\sqrt[1.5]{600^{1.5} + 800^{1.5}}$ = 1116.85

Countrywide PML 2017 = (2017-2014)/8 × 1116.85 + (2022-2017)/8 × max (456, 672) = 838.82

Assuming financial resources and earthquake premium reserve both are 0,

Earthquake reserve = 838.82 × 1.25 = 1048.52

Part b: 2 points

Sample answers (any four of the following):

- Earthquake Exposure Risk Management: insurers should have a sound and comprehensive earthquake exposure risk management policy that is subject to oversight by the Board of Directors and is implemented by senior management.
- Earthquake exposure Data: earthquake exposure data needs to be appropriately captured and regularly tested for consistency, accuracy and completeness.
- Earthquake models: Earthquake models should be used with a sound knowledge of their underlying assumptions and methodologies, as well as with a high degree of caution that reflects the significant uncertainty in such estimates.
- PML estimates: PML estimates should properly reflect the total expected ultimate cost to the insurer, including considerations for data quality, non-modelled exposures, model uncertainty and exposures to multiple regions.
- Financial resources and Contingency plan: Insurers need to ensure that they have an adequate level of financial resources and appropriate contingency plans to successfully manage through a major earthquake.

EXAMINER'S REPORT

Candidates were expected to know the components of the earthquake reserve calculation, as well as understand key principles behind prudent management of earthquake risk.

Part a

Candidates were expected to know the steps in the calculation of the earthquake PML including the phase-in PML.

As financial resources and earthquake premium reserve were not provided in the question, full credit was awarded to answers that calculated the Countrywide PML 2017 correctly.

Common errors included:
- Interpolating the PML 420 incorrectly
- Only calculating the West PML without stating that it is larger than East PML
- Interpolating the Countrywide PML 2017 incorrectly

Part b
Candidates were expected to provide the key principles of managing earthquake risk. A common error was: • Providing two answers that fell in the same category. For example, "have adequately trained staff to run the model" and "have a sound knowledge of key assumptions underlying the model."

QUESTION 20	
TOTAL POINT VALUE: 3.25	**LEARNING OBJECTIVE(S): C1, C2, D1**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample 1
Scenario 2, forecasted results for projected period in scenario 2 reflect a more smooth and realistic year to year flow

Sample 2
Scenario 2 since it is more stable in the MCT and claims

Part b: 0.25 point

Sample 1
There could have been changes in operations between the publishing of the business plan and the creation of the base scenario

Sample 2
If the business plan is too aggressive and not realistic, it shouldn't be used

Part c: 0.75 point

Sample 1
Increase in claim liabilities. Claims and expenses have increased from Scenario 2 to Scenario 1 across the projection period, and there is a lower MCT ratio

Part d: 0.75 point

Sample 1
Increase rates, review mix of business, review reinsurance

Sample 2
Increase rates, review reinsurance placement, review investment strategy

Part e: 0.50 point

Sample 1
Size of the company – smaller companies should have smaller materiality standards as they have less capital. Type of business – long tail, and short tail lines are different and should have different materiality standards

Sample 2
Size of the company (larger company could have a less rigorous selection due to the capital level). Financial strength of the company (at greater risk of insolvency = more rigorous)

Part f: 0.50 point

Sample 1
MCT for base scenario > 150% for all years. Assets > liabilities for both base and adverse scenarios for all years.

Sample 2
MCT for base scenario > 150% for all years. Surplus greater than 0 for both base and adverse scenarios for all years.

EXAMINER'S REPORT

Candidates were expected to demonstrate an understanding of the requirements of DCAT base and adverse scenarios, requirements for meeting satisfactory financial condition, and considerations for materiality standards.

Part a

Candidates were expected to identify the base scenario and explain the reason behind their selection.

A common error included:
- Selecting the wrong scenario (scenario 1) as the base scenario

Part b

Candidates were expected to identify a reason the base scenario may differ from the company's business plan.

Common errors included:
- Providing a vague answer such as "recent management action"
- Providing an incorrect answer such as "a business plan requires injection of capital"

Part c

Candidates were expected to identify and justify an event that could lead to the adverse scenario.

Common errors were:
- Not providing justification for the event
- Identifying an incorrect event such as "rapid growth"

Part d

Candidates were expected to identify three possible management actions for the adverse scenario in part c.

A common error included:
- Not identifying three actions

Part e
Candidates were expected to describe two considerations when selecting the materiality standard for a DCAT analysis. A common error was: • Providing a response that is incomplete or lacking sufficient detail

Part f
Candidates were expected to identify the requirements for an insurer's financial condition to be satisfactory. A common error was: • Not mentioning that the equity had be greater than 0 for the <u>base scenario</u> in addition to the adverse scenario **In addition, many candidates failed to mention the conditions had to be true <u>throughout the forecast period</u>. Credit was awarded if the response to part (f) was otherwise complete. In future sittings, only partial credit will be awarded if the period over which the conditions need to hold (i.e. throughout the forecast period) is not mentioned.**

QUESTION 21	
TOTAL POINT VALUE: 1.25	**LEARNING OBJECTIVE(S): C2**
SAMPLE ANSWERS	

Part a: 0.25 point

Sample

In contrast to the MCT calculation, a significant proportion of capital is required to support future premium risk. Reflecting A.M. Best's views that balance sheet strength must support the risks associated with a company's current book of business as well as those it plans to insure in the upcoming year.

Part b: 0.5 point

Sample responses (any two of the following)
- More aggressive investment portfolio
- Depends heavily on pyramided capital
- Has excessive credit risks
- Depends excessively on reinsurance
- Higher underwriting leverage
- Greater indicated reserve deficiency
- Unstable or unprofitable business

Part c: 0.5 point

Sample (similarity)
- They both reflect an adjustment for the diversification between the different risk categories.

Sample (difference, any one of the following)
- A.M. Best adds an adjustment for the distortion on top of the square root rule
- MCT uses a simplified square root rule to account for correlation between insurance and asset risk

EXAMINER'S REPORT

Candidates were expected to know the key differences between A.M. Best's BCAR approach for the calculation required capital versus the MCT. Specifically, they were expected to know the differences in the treatment of the future premium risk and the covariance adjustment.

Part a

Candidates were expected to describe the reason capital required for future premium risk is higher under A.M. Best than under the MCT.

A common error was:
- Identifying a difference between the A.M. Best approach and the MCT, not specifically related to future premium risk.

Part b
Candidates were expected to identify two company characteristics that would generate a lower BCAR value. Common errors included: • Identifying a company characteristic that is not relevant to the BCAR value • Listing characteristics(s) that would generate a higher BCAR value rather than lower
Part c
Candidates were expected to identify a similarity and a difference between the covariance adjustment in the A.M. Best BCAR calculation and the diversification credit in the MCT calculation. A common error was: • Simply stating that the formula is different without providing any additional detail.

QUESTION 22	
TOTAL POINT VALUE: 2.5	**LEARNING OBJECTIVE(S): C2**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample 1

Stress testing is a key risk management tool during periods of expansion, when innovation leads to new products that grow rapidly and for which limited or no historical experience is available. Stress testing can be used to provide risk management and a control tool in the company's flood insurance program

Sample 2

Stress testing can help identify concentrations and interactions between risks. For example, a stress test could test the concentration of home policies the insurer has written and insurers' response to a flood event.

Part b: 0.5 point

Sample answers (any two of the following):
- Responsible for implementation, management and oversight of the program
- Identifying and describing the company's risk appetite
- Understanding the impact of stress events on the risk profile of the company
- Participating in reviewing and identifying potential stress scenarios
- Contributing to the development and implementation of risk mitigation strategies

Part c: 1.5 points

Sample 1
- Focus 1
    - I. Risk mitigation
    - II. Stress testing should facilitate the development of risk mitigation or contingency plans
    - III. Example: Implement a reinsurance program to cover flood
- Focus 2
    - o Reputation risk
    - o An institution should enhance its stress testing methodologies to capture the effect of risks to reputation
    - o Example: reputation risk if flood coverage is optional and was not offered to existing policyholders

Sample 2
- Focus 1
    - o Counterparty credit risk
    - o An institution may have large gross exposures to leveraged counterparties
    - o Example: credit risk from reinsurers
- Focus 2
    - o Risk concentrations

- o Stress testing should consider risk concentrations resulting directly from risk taking activities as well as those resulting indirectly from actions to mitigate risks.
- o Example: geographic concentrations in a high-risk flood zone

Sample 3
- Focus 1
  - o Capital management
  - o Considering the impact on the capital when designing the stress testing program
  - o Example: capital response to a flood insurance event
- Focus 2
  - o Liquidity risk
  - o Stress testing should consider the insurer's ability to access or liquidate assets
  - o Example: insurer's ability to access capital or liquidate assets in a flood event

Sample 4
- Focus 1
  - o Multiple perspectives
  - o Stress test design should include input from multiple departments within an organization (ex. underwriting, claims) as well as external subject matter experts
  - o Example: insurer should engage experts (meteorologist, geologist, etc.) in designing the stress testing program
- Focus 2
  - o Infrastructure for regular updates
  - o Stress testing infrastructure should be flexible to regular updates in timing, scenarios, and risk factors
  - o Example: Insurer can build stress test framework that can be updated regularly for flood plain data

EXAMINER'S REPORT

Candidates were expected to demonstrate a knowledge of stress testing and how to apply it to a flood insurance example.

Part a

Candidates were expected to explain how stress testing can be a key risk management tool for the insurance company's flood program.

A common error was:
- Omitting commentary relating the stress test program to flood insurance.

Part b

Candidates were expected to briefly describe two responsibilities of senior management in a property and casualty insurance company's stress testing program.

One common error was:

- Candidates did not state their responsibility in the stress testing program. For example, saying that senior management was responsible to reporting to the board of directors.

Part c

Candidates were expected to identify two areas of focus when designing the program, describe each and relate them to flood insurance.

Common errors included:
- Outlining considerations of stress testing program design but not focuses. For example, documentation and data quality are not considered focuses.

QUESTION 23	
TOTAL POINT VALUE: 3	**LEARNING OBJECTIVE(S): C2, D1**
SAMPLE ANSWERS	

Sample 1
- Internal target should be set using ORSA. OSFI states the internal target should not be some percentage higher than MCT. The actuary chose 40 points higher than MCT.
- Actuary considered the past variability of the MCT, but this is not valid. The process should be forward-looking as a company's circumstances can change.
- Operating level should be higher than the internal target. If a company believes it may fall below its internal target, it should notify OSFI and explain plans to be back up within 2 years. If operating target equals internal target, there is no buffer for the company.
- AA considered an injection of capital as a reason to lower target but he should not unless the parent company explicitly considers it as part of their plan.

Sample 2
- In establishing the internal target the AA should not be looking at past variability in the MCT, but should calculate it using the ORSA in conjunction with the DCAT. It is not sufficient to look at the past MCT variability to set the internal target.
- When the AA reduces the estimate by 10 points down to 180%, it is not appropriate to assume the parent company can inject capital in case of financial distress. The target should have stayed at 190% and not consider the capital injection.
- A company should operate above the internal target. In fact, if a company is at or below the internal target, they need to contact OFSI to tell them.
- The AA should be establishing the internal target separately from the supervisory minimum. In this case, the AA just adds 40 basis points to the minimum. However, the AA should have come up with his own internal target.

Sample 3
- AA needs to consider more than just historical MCT when establishing internal targets. He should have done ORSA to assess capital needs, possibly using stress testing.
- The AA selected an operating target the same as the internal target but OSFI expects insurers to operate above the internal target. The AA should select a higher buffer above the internal target.
- The AA reduced the internal target due to the parent company, which is not appropriate. The parent company could become insolvent or refuse to inject capital. The internal target should not be reduced for this.
- The AA established the internal target in relation to the supervisory target, rather than doing an independent analysis to come up with the target. The internal target should reflect the own view of risk and should not depend on the MCT.

EXAMINER'S REPORT
Candidates were expected to describe how the Appointed Actuary (AA) did not follow regulatory guidance with respect to the selection of the internal target. They were also expected to briefly describe appropriate action that the AA should have taken.

Partial marks were given for mentioning that the internal target setting also fall under the responsibility of management and the Board.

Common mistakes included:

- Not including proper action from the AA.
- Being too vague on the appropriate action, for example, "The AA should base the internal target on more analysis."
- Confusing capital required for operational risk in the MCT with operating target.
- Not mentioning which one of the operating target and internal target should be higher.
- Not mentioning that the AA should not set the internal target only by adding an arbitrary margin to the supervisory target.
- Providing an incorrect answer such as stating that the AA should not be involved in the internal target setting process.

QUESTION 24	
TOTAL POINT VALUE: 4	**LEARNING OBJECTIVE(S): C1 C2**
SAMPLE ANSWERS	
Part a: 1 point	

Sample

i. Net income (loss) for fiscal year 2017

= Underwriting Income (Loss) + Net Investment Income + Other Revenue and Expenses - Total Income Taxes

= 11,000 + 2,500 + 1,100 - 4,200

= 10,400

ii. Total equity as of December 31, 2017

= Equity as of Dec 31, 2016 + Net Income FY 2017 + AOCI 12/2017 - AOCI 12/2016

= 75,000 + 10,400 + 2,000 - 1,800

= 85,600

iii. MCT ratio as of December 31, 2017

= Total Capital Available / (Total Capital Required at Target / 1.5)

= (74,000) / (38,000 / 1.5)

= 292.1%

iv. Net unpaid claims and adjustment

= Gross Unpaid Claims and Adjustment Expenses 12/2016 - Ceded Unpaid Claims and Adjustment Expenses 12/2016 + Net Claims and Adjustment Expenses Incurred FY 2017 - Net Paid Losses FY 2017

= 132,000 - 7,000 + 60,000 - 42,000

= 143,000

Part b: 2 points	

Sample

i. Return on revenue

= [Underwriting Income (Loss) + Net Investment Income - Realized Gains (Losses)] / [Net Written Premium + Ceded Written Premium]

= (11,000 + 2,500 - 500) / (100,000 + 10,000)

= 11.8%

ii. Return on equity

= Net Income / Equity

= 10,400 / 85,600

= 12.7%

iii. Net loss reserves to equity

= [Net Loss Reserve 12/2017] / [Equity as of 12/2017]

= 143,000 / 85,600

= 167.1%

iv.   Overall net leverage

= [Net Written Premium + Total Liabilities - Ceded Unpaid Claims - Ceded Unearned Premium] / [Total Equity]

= (100,000 + 280,000 - 5,000 - 8,000) / 85,600

= 428.7%

Part c: 1 point

Any four of the following five:
- MCT ratio > internal target MCT of 220% (good)
- Return of revenue > 6.2% (good)
- Return on equity > 5.4% (good)
- Net loss reserve to equity < 200% (good)
- Overall net leverage < 500% (good)

EXAMINER'S REPORT

Candidates were expected to master the calculations of various annual return and MSA ratios and be able to assess a company's financial health based the MSA criteria.

Part a

Candidates were expected to calculate the four OSFI annul return figures using the information provided.

For part ii., no additional points were deducted for use of incorrect numbers carried from part i.

Common errors included:
- For net income for fiscal year 2017, considering additional adjustments for the $500 realized gains.
- For total equity as of December 31, 2017, neglecting to adjust for the change in AOCI.
- For the MCT ratio, neglecting to apply the 1.5 factor.

Part b

Candidates were expected to calculate the four ratios using the information provided and determined in part a.

No additional points were deducted for use of incorrect numbers carried from part a.

Common errors included:
- For the return on revenue, neglecting to adjust for realized gains.
- For the overall net leverage, neglecting to adjust for ceded unpaid claims and ceded unearned premium.

Part c

Candidates were expected to know the key MSA thresholds and be able to assess the financial status of the company using MSA criteria.

Credit was also given if the candidate compared the MCT ratio to the OSFI supervisory target of 150%, and was able to draw the correct conclusion.

A common error was:
- Using an incorrect MSA threshold.

QUESTION 25	
TOTAL POINT VALUE: 4	**LEARNING OBJECTIVE(S): C2**
SAMPLE ANSWERS	

Part a: 1.75 points

Sample

Operational Risk = $Min(30\% \times CR_0 ; 8.5\% \times CR_0 + 2.5\% \times P_W + 1.75 \times P_A + 2.5\% \times P_C + 2.5\%P_\Delta)$
= Min(12,300 ; 8.5% × (25000+12500+3500) + 2.50% × (100000+205000) + 1.75% × (5000+15000) + 2.50% × (7500+20000 + 2.50% × growth above 20%)
= Min(12,300 ; 12,473)

Diversification Credit = $A + I - (A^2+I^2+2RAI)^{0.5}$
= $25000 + 12500 + 3500 - ((12500+3500)^2 + 25000^2 + (2 \times 0.5 \times (12500+3500)*25000))\hat{}0.5$
=5,209

Capital Required = (Insurance Risk + Market Risk + Credit Risk + Operational Risk - Diversification Credit)/1.5
= (25000 + 12500 + 3500 + 12300 - 5209)/1.5
= 32,061

MCT = Capital Available / Capital Required
= 60,000 / 32,061
= 187.1%

Part b: 0.25 point

Sample
The OSFI early intervention trigger is at the supervisory target level of 150%. Because the MCT is greater than 150% there would be no trigger to OSFI.

Part c: 2 points

Sample (any four of the following responses):
- ORSA considers more risks than MCT and includes all risks material and relevant to the company
- ORSA considers dependencies and correlations between risks whereas MCT uses a simplified approach that only considers correlation between insurance and asset risk
- ORSA includes assessment of internal controls to allow for better management of the business
- ORSA allows for the setting of an internal target to reflect an insurer's own risk appetite
- ORSA allows for a better qualitative assessment of risk, whereas MCT is only quantitative
- ORSA is tailored to a company's own risk profile, whereas MCT is a formula-based approach that is not specific to the company
- ORSA is more of a forward-looking measure
- ORSA is used for mitigation/prevention exercise

SAMPLE ANSWERS AND EXAMINER'S REPORT

EXAMINER'S REPORT
Candidates were expected to calculate the MCT ratio given all the relevant data items. The focus of the calculation was on the operational risk calculation but understanding how all the various risks tie together was also important. Based on the indicated MCT ratio, candidates were expected to identify whether OSFI's early intervention would be triggered. Finally, candidates needed to be able to describe why the Own Risk and Solvency Assessment (ORSA) is a better management tool for the Board of Directors than the MCT.

Part a
Candidates were expected to calculate the MCT ratio given various inputs and, in particular, understand the operational risk calculation. A common error was: Failing to account for the minimum qualifier in the operational risk calculation.

Part b
Candidates were expected to identify that OSFI early intervention is triggered when the MCT falls below the supervisory target of 150%. There were no common errors identified. Regardless of the response to part a., candidates were awarded full marks if they correctly identified that intervention would be triggered if the MCT fell below the supervisory target of 150%.

Part c
Candidates were expected to describe ways in which ORSA is a better management tool for the Board of Directors compared to the MCT. The common error was that candidates fail to provide description on how ORSA is a better management tool than MCT.

QUESTION 26	
TOTAL POINT VALUE: 1	LEARNING OBJECTIVE(S): B2, C1, C2
SAMPLE ANSWERS	

Part a: 0.25 point

Sample 1

Not necessarily. Risks inherent in premium and claim liabilities may be different, thus may be subject to different MfADs.

Sample 2

No, since premium and claim liabilities have different payment patterns and duration.

Sample 3

They can be different, if they expect changes to the future that do not affect the past, for example.

Sample 4

No. Since premium liabilities have even more uncertainties than claim liabilities, MfADs should be higher for premium liabilities.

Part b: 0.25 point

Sample 1

No. MCT diversification benefit considers correlation between asset risk and insurance risk, where asset risk = credit risk + market risk.

Sample 2

No. Only between asset risk and insurance risk.

Sample 3

No. Operational risk has not been considered in the diversification calculations.

Sample 4

No. Diversification between market risk and credit risk is not considered.

Part c: 0.25 point

Sample 1

Yes. Premium deficiency occurs when equity in the net UPR is negative.

Sample 2

Yes. If premium is not sufficient to meet future expected liabilities, then no DPAE can be deferred.

Sample 3

True. Max DPAE = max(0, calculated DPAE)

Sample 4 Yes. DPAE is an asset that can only be booked when there is an expected future profit (i.e. no premium deficiency)
Part d: 0.25 point
Sample 1 Yes and no. Flood insurance would be included in the claim and premium liabilities, but there is not a consideration for flood risk the way there is for earthquake. *Sample 2* True. Floods are not insured in Canada and therefore not incorporated into MCT as flood insurance. *Sample 3* False. If flood insurance were sold it would be reflected in insurance risk. *Sample 4* False. Flood premium increase overall premium, which increase margin for premium liabilities and operational risk.
EXAMINER'S REPORT
Candidates were expected to provide justification on the accuracy of different statements related to MfADs, DPAE and the MCT calculation.
Part a
Candidates were expected to briefly explain whether MfADs should be the same for premium and claim liabilities. They were expected to demonstrate some understanding of the considerations involved in selecting the MfADs. Common mistakes included: • Answering without providing context. • Mentioning the statement is false without any justification, for example, stating "MfADs should be different between premium and claim liabilities."
Part b
Candidates were expected to demonstrate an understanding of the diversification considerations in the MCT calculation. Common errors included: • Answering that the statement provided in the question is true • Answering the statement provided in the question is false without any justification • Not providing a precise justification regarding the accuracy of the statement such as stating "No. Only between risks."

Part c
Candidates were expected to demonstrate understanding of the relationship between the booked DPAE and the premium deficiency. Common errors included: • Mentioning the statement is false • Mentioning the statement is true without any justification • Confusing maximum allowable DPAE and booked DPAE

Part d
Candidates were expected to demonstrate an understanding of the flood insurance business in Canada and know how flood risk is covered in the MCT calculation. Common mistakes included: • Mentioning the statement is true without any justification. • Mentioning the statement is false without any justification. • Saying the statement is accurate because MCT catastrophe risk only covers earthquake and nuclear risks. Candidates also needed to mention that while flood insurance is not taken into account directly in catastrophe risk, as long as it is covered by the insurer, it is included in the MCT within the claim and premium liability risks. • Stating incorrectly that flood insurance risk is covered in the MCT catastrophe risk category. Only earthquake and nuclear risks specifically trigger additional catastrophe capital in the MCT.

QUESTION 27	
TOTAL POINT VALUE: 2.75	**LEARNING OBJECTIVE(S):** C1, D1
SAMPLE ANSWERS	

Part a: 1 point

Sample 1

Bond	Change in NI	Change in OCI
A	= Change in AV + coupon = 300 + 150 = 450	0
B	= Change in AV + coupon = -300 + 200 = -100	=change in FV – change in AV = 800
C	= Change in AV + Gains from FVO + coupon = (5000-5000) + [(5500-5000)-(4900-5000)]+ 500 = 1100	0
Total	1450	

Sample 2
NI = 150+200+500 +(2800-2500) + (3200-3500) + (5500-4900) = 1450
OCI = (3500-3200) – (3000-3500) = 800

Part b: 0.75 point

Sample 1
HTM: No effect to NI and OCI
AFS: NI stays same, OCI decreases
HFT: NI decreases, OCI stays the same

Sample 2
HTM: NI & OCI unaffected
AFS: decrease in asset value flows to OCI
HFT: decrease in asset value flows to NI

Part c: 0.5 point

Sample 1
- Advantage: Stability because market volatility won't have impact on Net Income
- Disadvantage: If more than an insignificant amount is sold before maturity, then all assets will be classified as Available-for-Sale for at least 2 years

Sample 2
- Advantage: Reduces volatility on the balance sheet
- Disadvantage: Can't sell more than insignificant amount or else will be tainted

Part d: 0.5 point

Sample
- The Fair Value Option will significantly decrease the financial risk
- The Fair Value Option will significant decrease the mismatch between assets and liabilities

EXAMINER'S REPORT
Candidates were expected to understand the different bond classifications, how Net Income and Other Comprehensive Income are calculated under each classification, and specifics on exercising the Fair Value Option.

Part a
Candidates were expected to know how Net Income and Other Comprehensive Income are calculated under the different asset classifications. Common errors included: • Using the change in market value instead of the amortized value for the Available-For-Sale bond Net Income calculation • Not completing the calculation of the Other Comprehensive Income • For the Other Comprehensive Income calculation of the Available-For-Sale bond, calculating it as the sum of the change in market value + change in amortized value (as opposed to the change in market value – change in amortized value)

Part b
Candidates were expected to understand how Net Income and Other Comprehensive Income react to a market rate increase under the different bond classifications. Common errors included: • Incorrectly stating that Net Income increases for the Available-For-Sale bond • Not mentioning the impact on OCI for the Held-for-Trading bond • Incorrectly stating that Net Income increases for the Held-for-Trading bond

Part c
Candidates were expected to know the features of a Held-to-Maturity bond. Common errors included: • Providing a too brief descriptions of the advantage. Examples of answers that were too brief included stating "less volatility" and "reported at amortized value." • Not relating the advantage to the impact on the financial statement, for example, stating "value doesn't change with market rate changes." • Providing a too brief descriptions of the disadvantage. Examples of answers that were too brief included stating "less liquid" and "less flexible."

Part d
Candidates were expected to understand the Fair Value Option and know when OSFI allows its use. A common error was: • Not correctly identifying the two conditions specified by OSFI

QUESTION 28	
TOTAL POINT VALUE: 1.5	**LEARNING OBJECTIVE(S): C1**
SAMPLE ANSWERS	

Sample 1
- Discounting will use a yield curve considering the liquidity of insurance contracts.
- PfADs will disappear. The company will have to determine a risk adjustment based on their risk appetite & tolerance profile.
- The company will need to determine if a contract is onerous or not, when calculating the liabilities.

Sample 2
- Discount rate will be chosen differently using the suggested "top down" or "bottom up" approach, with consideration given to liquidity premium.
- Financial results will need to be separated for "profitable" & "non-profitable" contracts; will force company to report unprofitable lines of business.
- Measurement approach PAA and BBA are prescribed approaches for measuring liabilities and remaining coverages for premium liabilities.

EXAMINER'S REPORT

Candidates were expected to understand the major changes that will happen under IFRS 17. Key areas that these changes will apply to include:
- Level of aggregation
- Measurement approach
- Discounting
- Risk adjustment

Common errors included:
- Providing fewer than three elements
- Providing impacts not related to the valuation of actuarial liabilities, for example, stating "impact on assets and disclosures."
- Providing answers that were not specific enough or not directly related to IFRS 17. Examples of these included:
    - Valuation will require more details
    - Actuarial Standards of Practice will have to be followed
    - Projection of liability cash flows

QUESTION 29	
TOTAL POINT VALUE: 2	**LEARNING OBJECTIVE(S): D1**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample 1

An event of which an actuary becomes aware after the calculation date, but before the corresponding report date.

Sample 2

An event known to the actuary for the first time between the calculation date and the report date.

Part b: 1.5 points

Sample 1

i) awareness = Jan 24 => after calc date, before report date => subseq event
 - b/c the insolvency is due to gradual deterioration, this tells the actuary something about the data prior to the val'n date
 => that the reinsurer was less secure than previously thought
 => restate the valuation given the new information
ii) awareness = Feb 6 => after calc, before report => subseq event
 - the lg loss event occurred in mid-Jan, so they do not change the valuation of the entity as of Dec 31. If the change is material, the AA may add the event to the report as a note, but not restate the val'n

Sample 2

i) subsequent event since actuary aware of Jan 24, 2018 between calc date & report date
Error? No. -> when? After calc date -> different? After calc date -> purpose? Reflect in the report. Since the event is an adjusting event and the event is material, hence need to reflect in the report.
ii) subsequent event since actuary receives notice on Feb 6, 2019 after calc date and before report date
Defect/error? No -> when? After calc date -> different? After calc date -> purpose? Reflect as it was but disclose if material
It's a non-adjusting event. It doesn't retroactively affect the report but if the event is material need disclose in the report to BoD.

Sample 3

i) aware of event b/w calc date & report date => it is subsequent event
gradual deterioration indicates condition of comp. before calc date, it makes entity retroactively different, so should be reflected in work

ii) b/w calc date & report date -> subsequent event
this is not an error and does not make entity retroactively different; if IBNR can absorb the value do nothing; else since purpose is to report on entity as it was at calc date, inform users of financial statements.

Sample 4
i) Error: no
when: after the calc date
different: will it make the entity different. Yes
it happened before the calculation date
The company is ceding 30% of business, should reflect it in the calculation

ii) if IBNR is sufficient to cover the change, then it's normal course of business, and no action is needed. If IBNR is insufficient, it's a subsequent event that provides information on the company after calculation date. Disclose the impact in report.

EXAMINER'S REPORT

Candidates were expected to demonstrate an understanding of subsequent events and the logic that should be used by the AA to determine the appropriate course of action.

Part a

Candidates were expected to correctly define the appropriate time period of an event to qualify as a subsequent event

Common errors included:
- Using valuation date instead of calculation date
- Stating the event occurred between the given dates, instead of focusing on the actuary's awareness of the event

Part b

For each of i) and ii), the candidate was expected to identify that the event did qualify as a subsequent event, to apply the event decision tree to determine the appropriate course of action, and to correctly identify the action itself.

Common errors included:
- Providing incorrect action given the logic (e.g., state the action is to disclose/inform instead of reflect event in the work or vice versa)
- Not providing relevant justification/support for the recommended action
- Vague action wording that could refer to either disclosure or recalculation of the work (e.g., "include in report")

QUESTION 30	
TOTAL POINT VALUE: 2.5	**LEARNING OBJECTIVE(S): D1**
SAMPLE ANSWERS	

Part a: 1 point

Sample
- Must work for 3 years of past 6 years in a Canadian P&C insurance company, with at least 1 year in valuation
- Must show continuous professional development
- Must have no adverse findings from the CIA disciplinary tribunal
- Must comply with CIA SOP

Part b: 1 point

Sample response for i)
AA must report on company's current financial condition and expected future financial position (DCAT) to directors

Sample response for ii)
AA must report on material adverse events that require rectification to officers

Part c: 0.5 point

Sample response for i)
Send written statement to board of directors and OSFI regarding the reason & circumstance of resignation

Sample response for ii)
Should request the written statement described above before accepting appointment

EXAMINER'S REPORT

Candidates were expected to show a clear understanding of the requirement to act as an Appointed Actuary, report to the board of directors as well as officers, and to understand the responsibilities of a resigning and newly appointed AA.

Part a

Candidates were expected to know the requirements for an FCIA to act as an Appointed Actuary.

Common errors included:
- Not indicating that the 3 years of Canadian experience must be within the latest 6 years, for example, stating "3 years Canadian experience, including 1 in valuation."
- Answering "Must be an FCIA" as this information is provided in the question
- Listing the requirements of an external reviewer

Part b

Candidates were expected to describe information that should be reported by the AA to the director and to the officers.

Common errors included:

- Listing items to be reported to one group under the other group.
- Missing the "rectification request" which needs to be reported to officers.
- Listing items without specifying which ones are reported to board of directors and which ones to officers.

Part c

Candidates were expected to describe the resigning and newly-appointed AA's responsibilities.

Common errors included:

- Not mentioning the report needs to be in writing.
- Not mentioning the content of the report must include the reason of resignation or revocation.
- Not specifying to whom the resigning AA should send the written report.
- Stating incorrect or insufficient information such as:
    - "Resigning AA needs to report adverse findings." According to the ICA, the content of the written report should include "the circumstances and reasons why the actuary resigned or why, in the actuary's opinion, the actuary's appointment was revoked."
    - "Newly-appointed AA should request the written report within 15 days of appointment." According to the ICA, the written report should be "received" within 15 days of request.
    - "Newly-appointed AA should review prior AA's work." There is no requirement to do so.