

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Important Exam Information:

Exam Date and Time	A read-through time will be given prior to the start of the exam—15 minutes in the morning session and 15 minutes in the afternoon session.
Exam Registration	Candidates may register online or with an application.
Order Study Notes	Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.
Introductory Study Note	The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.
Case Study	There will be no Case Study for this exam
Past Exams	Past Exams from 2000-present are available on SOA web site.
Updates	Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA - CSP	TOPIC: Financial Reporting
Learning Objectives	
<p>1. The candidate will understand the preparation of financial statements and reports of Canada life insurance companies and be able to analyze the data in them.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Construct the basic financial statement or its components for a life insurance company</p> <p>B. Describe the structure of the Canada Annual Statement and explain the purpose of its statements, key exhibits and schedules</p> <p>C. Describe how to compute the taxable income of a life insurance company</p> <p>D. Explain fair value accounting principles</p> <p>E. Describe international accounting standards</p> <p>F. Develop, use and recommend methods for performing actuarial reviews of reserves</p> <p>G. Describe and critique the fundamental approaches of financial economics to valuation liabilities</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Insurance Taxation</i>, Third Edition, 2009, by PriceWaterhouseCoopers (Background reading Chapters 1,2,7-10,26), Chapter 3 Liability for Income Tax, Chapter 4, Income for Tax Purposes – General Rules, Chapter 5, Investment Income, Chapter 6, Reserves, Chapter 11, Investment Income Tax, Chapter 27 Provincial Premium Taxes • <i>Valuation of Life Insurance Liabilities</i>: Chapter 1, Overview of Valuation Requirements • ILA-C100-07: Financial Reporting Developments Accounting for Derivative Instruments and Hedging Activities: A Comprehensive Analysis of FAS 133. Overview and Appendix C only. • ILA-C102-09: Actuarial Review of Reserves and other Annual Statement Liabilities, Ed Robbins exclude appendices • ILA-C127-13: IASB Staff Paper July 2012: Effect of Board Redeliberations on Exposure Draft <i>Insurance Contracts</i> • ILA-C618-13: OSFI D-10, Accounting for Financial Instruments Designated as Fair Value Option • ILA-C629-11: Conversion to International Financial Reporting Standards (IFRSs) by Federally Regulated Entities (FREs)” March 2010 • An Approach to Fair Valuation of Insurance Liabilities Using the Firm’s Cost of Capital, NAAJ, Apr 2002, p. 18-23 http://www.soa.org/library/journals/north-american-actuarial-journal/2002/april/naaj0204_3.pdf • Fair Value of Liabilities: The Financial Economic Perspective, NAAJ Jan 2002 http://www.soa.org/library/journals/north-american-actuarial-journal/2002/january/naaj0201_2.pdf 	

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

- Educational Note: Classification of Contracts under International Financial Reporting Standards
<http://www.actuaries.ca/members/publications/2009/209066e.pdf>
- CIA Educational Note: Valuation of Gross Policy Liabilities and Reinsurance Recoverables, December 2010
<http://www.actuaries.ca/members/publications/2010/210086e.pdf>

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA – CSP	TOPIC: <u>Principles of Valuation</u>
Learning Objectives	
<p>2. The candidate will be able to understand and apply valuation principles of individual life insurance and annuity products issued by Canada Life Insurance companies.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Describe Valuation Methods</p> <p>B. Recommend Appropriate Valuation Assumptions</p> <p>C. Calculate Liabilities for Life and Annuity Products and their Associated Riders:</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Life Insurance Liabilities:</i> Chapter 1 Overview of Valuation Requirements • ILA-C634-13: CIA Consolidated Standards of Practice – Section 2100, 2300, 2500 • ILA-C637-13: OSFI Letter evidence for Mean Reversion in Equity Prices • CIA Educational Note: Best Estimates Assumptions for Expenses – November 2006 http://www.actuaries.ca/members/publications/2006/206134e.pdf • CIA Educational Note: Margins for Adverse Deviations (Mfad) – November 2006 http://www.actuaries.ca/members/publications/2006/206132e.pdf • CIA: Valuation of Segregated Fund Investment Guarantees (December 2003 and October 2005) http://www.actuaries.ca/members/publications/2005/205111e.pdf http://www.actuaries.ca/members/publications/2003/203107e.pdf • CIA Educational Note: Approximations to the Canadian Asset Liability Method (CALM): November 2006 http://www.actuaries.ca/members/publications/2006/206133e.pdf • CIA Educational Note: Expected Mortality: Fully Underwritten Canadian Individual Life Insurance Policies: July 2002, exclude appendices http://www.actuaries.ca/members/publications/2002/202037e.pdf • Report of the Task Force on Segregated Fund Liability and Capital Methodologies (August 2010) http://www.actuaries.ca/members/publications/2010/210053e.pdf • Initial Communication of a Promulgation of Prescribed Mortality Improvement Rates Referenced in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health (Accident and Sickness) Insurance (Subsection 2350) http://www.actuaries.ca/members/publications/2011/211072e.pdf • CIA Draft Educational Note: Valuation of Universal Life Policy Liabilities 2012 http://www.actuaries.ca/members/publications/2012/212012e.pdf • CIA Educational Note: Use of Actuarial Judgment in Setting Assumptions and Margins for Adverse Deviations, November 2006 http://www.actuaries.ca/members/publications/2006/206147e.pdf • CIA Educational Note: Considerations in Valuation of Seg Fund Products – November 2007 http://www.actuaries.ca/members/publications/2007/207109e.pdf • Financial Reporter Article April 2009, Rubin, et. al Fair Value Accounting: Trouble-maker or Life-saver? http://www.soa.org/library/newsletters/financial-reporter/2009/april/frn-2009-iss76.pdf • An Approach for measurement of the Fair Value of Insurance Contracts, Gutterman, et al., Actuarial Practice Forum, May 2007 http://www.soa.org/library/journals/actuarial-practice-forum/2007/may/APF0705_04.pdf 	

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

- CIA Educational note, Currency Risk in the Valuation of Policy Liabilities for Life and Health Insurers, December 2009
<http://www.actuaries.ca/members/publications/2009/209121e.pdf>
- CIA Educational Note, Aggregation and Allocation of Policy Liabilities, September 2003
<http://www.actuaries.ca/members/publications/2003/203083e.pdf>
- CIA Education Note, Investment Returns for non-fixed-income returns for Assets, 2011, **exclude appendices**,
<http://www.actuaries.ca/members/publications/2011/211027e.pdf>

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA - CSP	TOPIC: <u>Reinsurance</u>
Learning Objectives	
<p>3. The candidate will be able to evaluate various forms of reinsurance, the financial impact of each form, and the circumstances that would make each type of reinsurance appropriate.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Describe the considerations and evaluate the appropriate reinsurance form from the ceding and assuming company perspectives</p> <p>B. Explain the consequences and evaluate the effect on both ceding and assuming companies with respect to:</p> <ul style="list-style-type: none"> i) risk transfer ii) cash flow iii) financial statements iv) tax, and v) reserve credit requirements 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life and Health and Annuity Reinsurance</i>, Tiller, Third Edition, 2005: <ul style="list-style-type: none"> Chapter 4 Basic Methods of Reinsurance Chapter 5 Advanced Methods of Reinsurance Chapter 6 The Reinsurance Treaty • ILA-C632-12 : OSFI B-3 Sound Reinsurance Practices and Procedures • ILA-C606-13:OSFI: Guideline Minimum Continuing Capital and Surplus Requirements for Life Insurance Companies, Chapter 10 • Report of the CIA Task Force on the Appropriate Treatment of Reinsurance, Oct 2007 http://www.actuaries.ca/members/publications/2007/207081e.pdf • Accounting for Reinsurance Contracts under International Financial Reporting Standards http://www.actuaries.ca/members/publications/2009/209125e.pdf (exclude Appendix A, C and D) 	

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA - CSP	TOPIC: <u>Financial and Capital Management</u>
Learning Objectives	
4. The candidate will be able to explain and apply the methods, approaches and tools of financial management and embedded value creation in a life insurance company context.	
Learning Outcomes	
The candidate will be able to:	
<ul style="list-style-type: none"> A. Describe and calculate performance measures B. Perform financial analysis by product line and total company Analyze working U.S. and Canada C. Explain and create a product line “gains by source” analysis D. Apply methods of valuation to business and asset acquisitions and sales including explaining and applying the methods and principles of embedded value E. Explain and apply the basic methods and approaches of surplus management and earnings management F. Describe and apply the principles of how insurance companies create value from a financial economics perspective 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life Insurance Products and Finance</i>, Atkinson and Dallas, 2000, Chapter 16 • ILA-C106-07: Chapter 4 (Sections 4.1-4.6) in <i>Mergers and Acquisitions</i> • ILA-C603-13: OSFI Guideline D-9: Sources of Earnings Disclosure (Life Insurance Companies) • ILA-C626-10: PD #28 – Embedded Value (EV) and Market-Consistent Embedded Value (MCEV). What is the Difference?, June 2008 • Strategic Management of Life Insurance Company Surplus, TSA XXXVIII (pages 105-116 http://www.soa.org/library/research/transactions-of-society-of-actuaries/1986/january/tsa86v387.pdf) • CIA: Sources of Earnings: Determination and Disclosure, August 2004 http://www.actuaries.ca/members/publications/2004/204047e.pdf • Embedded Value: Practice and Theory, SOA, Actuarial Practice Forum, March 2009 http://www.soa.org/library/journals/actuarial-practice-forum/2009/march/apf-2009-03-frasca-lasorella.pdf 	

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA - CSP	TOPIC: <u>Financial and Capital Management</u>
Learning Objectives	
<p>5. The candidate will understand the Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC and Economic Capital.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Describe the MCCSR/RBC regulatory framework and the principles underlying the determination of Regulatory Capital</p> <p>B. Compute MCCSR for a life insurance company, including:</p> <ol style="list-style-type: none"> i) Identification of significant risk components ii) Identification of specialized product MCCSR requirements iii) Interpreting results from a regulatory perspective <p>C. Explain and apply the concepts, approaches and method for determining Economic Capital</p> <ol style="list-style-type: none"> i) Identification of the significant risk components ii) Selecting calculation methods appropriate to stakeholder’s perspectives iii) Describing how a company would implement an Economic Capital Program 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Liabilities</i>, Lombardi Chapter 16 Risk-Based Capital , exclude 16.6 • ILA-C121-08: Economic Capital Modeling: Practical Considerations, , pp. 4-34 only • ILA-C606-13: OSFI: Guideline Minimum Continuing Capital and Surplus Requirements for Life Insurance Companies, Chapters 1-5 and 8&9 • ILA-C609-07: CIA: OSFI Submission: Future Direction of Insurance Capital Rules: March 2005 • ILA-C628-10: OSFI: Framework for New Standard Approach to Setting Capital Requirements November 2008 • ILA-C631-11: Key Principles for the Future Direction of the Canadian Regulatory Capital Framework on Insurance • ILA-C636-13: OSFI Guideline A-4 Internal Target Capital Ratio for Insurance Companies • Economic Capital for Life Insurance Companies, SOA Research paper, Ch. 1, 3, 4, 5, 6 http://www.soa.org/files/pdf/research-ec-report.pdf • A Multi-Stakeholder Approach to Capital Adequacy, Conning Research & Consulting http://www.soa.org/library/journals/actuarial-practice-forum/2007/may/APF0705_01.pdf 	

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA - CSP	TOPIC: Model Office and Asset/Liability Modeling
Learning Objectives	
6. The candidate will be able to integrate data from various sources into model office and asset/liability models	
Learning Outcomes	
The candidate will be able to:	
<p>A. For an ALM model:</p> <ul style="list-style-type: none"> i) Select appropriate assumptions and scenarios ii) Model dynamic behavior of both assets and liabilities iii) Model and explain various strategies, including hedging iv) Analyze and evaluate results including actual vs. projected differences v) Recommend appropriate strategies <p>B. Apply a model office process and make appropriate recommendations</p> <p>C. Explain limitations of models and possible sources of error</p> <ul style="list-style-type: none"> i) Quality of data ii) Granularity of the model 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life Insurance Products and Finance</i>, by Atkinson and Dallas, Chapter 14 Financial Modeling • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, 4th Edition, Chapter 13 • ILA-C112-07: ALM for Insurers • ILA-C113-07: Chapter 22 of <i>Life Insurance Accounting</i>, Asset/Liability Management • ILA-C114-07: Life Insurance Forecasting and Liability Models (exclude appendices) • CIA Educational Note: Calm implications of AcSB Section CICA 3855 Financial Instruments – Recognition and Measurement – June 2006 http://www.actuaries.ca/members/publications/2006/206077e.pdf • ASOP #23: Data Quality (Excluding transmittal memo and appendices) http://www.actuarialstandardsboard.org/pdf/asops/asop023_097.pdf 	

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA - CSP	TOPIC: <u>Risk Management And Mitigation</u>
Learning Objectives	
<p>7. The candidate will be able to evaluate risks faced by a Company by virtue of the Company’s products, assets, and management strategies and practices, and be able to evaluate the appropriateness of various methods of risk mitigation.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> A. Identify, categorize and evaluate potential sources of risk in products including but not limited to mortality, morbidity and lapse B. Identify, categorize and evaluate potential sources of risk in investments including but not limited to credit risk, liquidity and asset-liability matching C. Describe and evaluate the other risks an insurance company faces including operational, marketplace and expense risks D. Describe how risks (e.g. product, investments and operational) and opportunities interact and how they influence firm strategy E. Describe and apply methods of risk mitigation and hedging and to understand the limitations of such methods F. Evaluate methods for measuring and controlling equity-based exposure associated with embedded options G. Describe the roles of rating agencies, analysts and regulators together with their methods and impact on insurance companies 	
Syllabus Resources	
<ul style="list-style-type: none"> • ILA-C116-07: Mapping of Life Insurance Risks, AAA Report to NAIC • ILA-C124-10: S and P’s Insurance Criteria: Refining the Focus of Insurer ERM Criteria exclude pp. 20-26 (property/Casualty (Nonlife) Insurance Risk • ILA-C125-10: Insurance Risk Management Response to the Financial Crisis, CRO Forum, April 2009 • ILA-C625-10: Market Value Margins for Insurance Liabilities in Financial Reporting and Solvency Applications, E&Y October 2007 through page 65 • ILA-C633-12: OSFI E-18 Stress Testing • Specialty Guide on ERM Chapters 1-6 http://www.soa.org/library/professional-actuarial-specialty-guides/enterprise-risk-management/2005/august/spg0605erm.pdf • Stochastic Analysis of Long Term Multiple-Decrement Contracts, Clark and Runchey, Jan 2008 – (exclude Appendices) http://www.soa.org/files/pdf/research-stochastic.pdf • CIA: Dynamic Capital Adequacy Testing (DCAT) Education Note: November 2007, http://www.actuaries.ca/members/publications/2007/207108e.pdf 	

Individual Life and Annuity Company/Sponsor Perspective – Canada Spring 2013

Exam: ILA - CSP	TOPIC: Professional Considerations
Learning Objectives	
8. The candidate will understand the professional standards addressing financial reporting and valuation.	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Explain the role and responsibilities of the appointed / valuation actuary</p> <p>B. Identify and apply relevant professional actuarial qualification standards</p> <p>C. Identify and apply actuarial standards of practice relevant to financial reporting and valuation</p> <p>D. Explain the actuary's professional responsibilities to stakeholders including obligations under Sarbanes-Oxley</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • ILA-C620-09: OSFI: Guideline E15: Sound Business and Financial Practices: Appointed Actuary: Legal Requirements, Qualification and External Review: November 2006 • ILA-C622-12: CIA: Consolidated Standards of Practice: (Section 2400) • ILA-C635-13: Participating Account Management and Disclosure to Participating Policy Holders and Adjustable Policy Holders • Actuarial Aspects of SOX 404, 12/04 Financial Reporter #59 http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf • Responsibilities of the Actuary for Communicating Sarbanes-Oxley control: Effectiveness in Accordance with Actuarial Standards of Practice, 12/04 Financial Reporter #59 http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf • CIA Educational Note: Guidance on Fairness Opinions Required Under the Insurance Companies Act Pursuant to Bill C-27 (2005) http://www.actuaries.ca/members/publications/2011/211123e.pdf 	