

EDUCATION COMMITTEE OF THE SOCIETY OF ACTUARIES (SOA)

INTRODUCTORY STUDY NOTE

EXAM SESSION: **FALL 2019**

EXAM: **RETIREMENT PLAN INVESTMENT AND RISK MANAGEMENT**

DATE & TIME: **Tuesday, October 29, 2019; 2:00 p.m. – 4:15 p.m.**

1. The examination will consist of two hours of written answer questions. A read-through time of 15 minutes will be given prior to the start of the exam. No writing is allowed during the read-through time.
2. The following link shows a recommended FSA module/exam sequence for each track:
<http://www.soa.org/Education/Exam-Req/edu-new-fsa-recommended.aspx>

This order is NOT mandated. Each candidate will determine the appropriate sequence based on factors including readiness to sit for an exam, exam administration schedules, or study time available. However, the Education committees believe that these recommendations provide the most effective guide for candidate success. An examination/module may assume familiarity with material that is covered in any requirement that is recommended to come before that examination or module.

3. The Syllabus material includes textbooks, online readings, and the study notes listed in the Appendix. The Appendix also may contain additional important information regarding this exam. A complete listing of the Syllabus and Learning Objectives is located in this exam's home page on the SOA Web site.
4. Several book distributors carry some or all of the textbooks for the Society of Actuaries exams. A list appears on the SOA Web site: <http://www.soa.org/education/exam-req/resources/edu-txt-manuals.aspx>.
5. Any changes in the Syllabus for this exam will be published under "Updates" in this exam's home page on the SOA Web site.
6. Past exams, solutions and case studies are available at: <http://www.soa.org/education/exam-req/syllabus-study-materials/edu-multiple-choice-exam.aspx>
7. A case study will not be used for this exam.
8. The candidate should be very familiar with the Learning Objectives. These Learning Objectives are the first ingredient in developing the syllabus and also guide the examination committee when writing questions. The Learning Objectives set out the cognitive level needed to pass this exam. You will notice that the candidates are expected to "analyze," "explain," "calculate," "describe," "apply," etc. While studying the syllabus material, candidates may want to refer back to the Learning Objectives to remain focused on the goals of the exam.

9. The examination questions for this exam will be based on the required readings for this exam. If a conflict exists (in definitions, terminology, etc.) between the readings for this exam and the readings for other exams, the questions should be answered on the basis of the readings for this exam.
10. Candidates may ONLY use these battery or solar-powered Texas Instruments models: BA-35, BA II Plus*, BAII Plus Professional*, TI-30Xa, TI-30X II* (IIS solar or IIB battery), and TI-30X MultiView* (XS solar or XB battery). Candidates may use more than one of the approved calculators during the examination.

Calculator instructions may not be brought into the exam room. During the exam, the calculator must be removed from its carrying case so the supervisor can confirm that it is an approved model. Candidates using a calculator other than the approved models will have their exams disqualified.

Candidates can purchase calculators directly from: Texas Instruments, Attn: Order Entry, PO Box 650311, Mail Station 3962, Dallas, TX 75265, phone 800/842-2737 or <http://epsstore.ti.com>.

The memory of the **BA II Plus, **BA II Plus Professional**, **TI-30X II** and **TI-30X MultiView** calculators will need to be cleared by the examination supervisor upon the candidate's entrance to the examination room.*

11. A list of various seminars/workshops and study manuals appears on the SOA Web site <http://www.soa.org/education/exam-req/resources/edu-sem-workshops.aspx> and <http://www.soa.org/education/exam-req/resources/edu-txt-manuals.aspx>. These seminars/workshops and study manuals do not reflect any official interpretation, opinion, or endorsement of the Society of Actuaries or its Education Committee.

Please note that the Education Committee expects candidates to read the material cited in the *Syllabus* and to use other material as a complement to the primary sources rather than a substitution for them.

12. The Society of Actuaries provides study notes to persons preparing for this examination. They are intended to acquaint candidates with some of the theoretical and practical considerations involved in the various subjects. While varying opinions are presented where appropriate, limits on the length of the material and other considerations sometimes prevent the inclusion of all possible opinions. These study notes do not, however, represent any official opinion, interpretation or endorsement of the Society of Actuaries. The Society is grateful to the authors for their contributions in preparing study notes.

The American Academy of Actuaries, the Canadian Institute of Actuaries, the Conference of Consulting Actuaries, and the Society of Actuaries jointly sponsor various examinations administered by the Society of Actuaries.

APPENDIX

Study notes for this exam

| Code | Title |
|--------------|---|
| RPIRM-102-13 | Equities in DB Plans – Is the Traditional 60/40 Mix a Dinosaur? |
| RPIRM-103-15 | Fiduciary Liability Issues for Selection of Investments |
| RPIRM-104-15 | Chapter 12, Sections 1-7 of <i>Managing Investment Portfolios</i> , Third Edition |
| RPIRM-108-13 | Introduction and Overview of Retirement Plan Investments |
| RPIRM-110-13 | Plan Sponsor Guide to Liability-Driven Investing |
| RPIRM-111-13 | Mind the Gap: Using Derivatives Overlays to Hedge Pension Duration |
| RPIRM-112-13 | Asset/Liability Modeling and Asset Allocation for Pension Plans |
| RPIRM-115-13 | <i>Pensions in the Public Sector</i> , Ch. 9 |
| RPIRM-120-13 | The Case Against Stock in Public Pension Plans |
| RPIRM-121-13 | The Case for Stock in Pension Funds |
| RPIRM-123-13 | Risk Management and Public Plan Retirement Systems - (appendix background only) |
| RPIRM-124-13 | Bader and Gold's Rebuttal to The Case for Stock in Pension Funds |
| RPIRM-128-13 | The Impact of the Financial Crisis on Defined Benefit Plans and the Need for Counter-Cyclical Funding Regulations |
| RPIRM-132-14 | CAPSA Guideline No. 6, Pension Plan Prudent Investment Practices Guideline |
| RPIRM-133-14 | CAPSA Guideline No. 7, Pension Plan Funding Policy Guideline |
| RPIRM-134-14 | Liability-Responsive Asset Allocation |
| RPIRM-136-15 | Longevity Risk Management: New Tools for Defined-Benefit Pension Plans |
| RPIRM-138-16 | Buy-in Annuities for Defined Benefit Plans |
| RPIRM-139-16 | Prudent Investment Practices for Derivatives |
| RPIRM-140-16 | OSFI—Longevity Insurance and Longevity Swaps |
| RPIRM-141-16 | Chapter 9 of <i>Recreating Sustainable Retirement: Resilience, Solvency, and Tail Risk</i> |
| RPIRM-143-17 | Attracting Pension Plan Assets—What Alternative Investment Managers Need to Know |
| RPIRM-144-17 | Patient Capital, Private Opportunity: the Benefits and Challenges of Illiquid Alternatives |
| RPIRM-145-17 | An Introduction to Infrastructure as an Asset Class |

| Code | Title |
|---------------|---|
| RPIRM-146-17 | The Pension Risk Transfer Market at \$260 Billion |
| RPIRM-147-17 | Charting the Course: A Framework to Evaluate Pension De-Risking Strategies |
| RPIRM-148-17 | Key Rate Durations: Measures of Interest Rate Risks |
| RPIRM-149-17 | Practical De-Risking Solutions: Asset Duration and Interest Rate Risk |
| RPIRM-150-17 | De-Risking in a Low-Interest-Rate Environment |
| RPIRM-151-18 | Designing the Future of the Target-Date Funds |
| RPIRM-152-18 | Pension Plan Immunization Strategies: How Close Can You Get? |
| RPIRM-154-18 | Benefit Security Pension Fund Guarantee Schemes |
| RPIRM-155-18 | CAPSA Guideline No. 4: Pension Plan Governance Guideline and Frequently Asked Questions |
| RPIRM-156-18 | Practical De-Risking Solutions: Low Volatility Equity Strategies |
| RPIRM-157-19* | Sharpening the Arithmetic of Active Management |
| RPIRM-158-19* | Your Guide to Investing in Commodities |
| RPIRM-159-19* | Is Paper Gold a Safe Investment? |
| RPIRM-160-19* | Factor Investing and Adaptive Skill: 10 Observations on Rules-Based Equity Strategies |
| RPIRM-162-19* | Use of Financial Economics in Pension Actuarial and Investment Practice |