

EDUCATION AND EXAMINATION COMMITTEE OF THE SOCIETY OF ACTUARIES (SOA)
SYLLABUS & EXAMINATION COMMITTEES OF THE CASUALTY ACTUARIAL SOCIETY
(CAS)

SPRING 2008
EXAM FM/EXAM 2

FINANCIAL MATHEMATICS

INTRODUCTORY STUDY NOTE

1. The Financial Mathematics examination for Spring 2008 will each be given over the period Thursday, May 28 through Wednesday, June 3. The exam will be administered in most locations as a computer-based test. Details on this appear at <http://beanactuary.org/exams/cbt.cfm> Check the Updates section of the SOA Web Site for any changes to the exam or *Syllabus*.
2. The exam will consist of 35 multiple-choice questions. Each multiple-choice question includes five answer choices identified by the letters A, B, C, D, and E, only one of which is correct. Candidates must indicate responses to each question on the computer. Candidates will be given three hours to complete the exam. At the end of three hours, the candidate may no longer respond to the questions.

As part of the computer-based testing process, a few pilot questions will be randomly placed in the exam (paper-and-pencil and computer-based forms). These pilot questions are included to judge their effectiveness for future exams, but they will NOT be used in the scoring of the exam. All other questions will be considered in the scoring. In the scoring procedure, an unanswered question is equivalent to an incorrect answer. Therefore, candidates should answer every question to maximize their scores.

With the introduction of computer-based testing, a different approach to test development is being followed. Since computer-based testing will be offered over a period of a few days, multiple forms of the test are being created for use. Each candidate will receive a test form composed of questions selected from a pool of questions. Statistical scaling methods are used to ensure within reasonable and practical limits that, during the same testing period of a few days, all forms of the test are comparable in content and passing criteria. The methodology that has been adopted is used by many credentialing programs that give multiple forms of an exam.

3. Any changes in the Course of Reading for this exam since the publication of the *Spring 2008 Basic Education Catalog* of the SOA or the *2008 Syllabus of Examinations* of the CAS are reflected in this Introductory Study Note and will also be posted on our Web sites.
4. The study notes for this exam include sample questions and solutions. The sample questions provide candidates with the opportunity to practice on the types of questions that are likely to appear on the examination. New sample questions will be released periodically or whenever the nature of the examination changes substantially.

5. The following list contains all study notes for this exam in Winter/Spring 2008. Items marked with # are new/updated for these sessions.

- FM-05-08# Introductory Study Note (this study note)
Derivatives Markets, Errata, 2006 Second Edition, first printing, by R. McDonald
http://www.kellogg.northwestern.edu/faculty/mcdonald/htm/typos2e_01.html
- Past Exams All released exam papers, since 2000, can be found at:
<http://www.soa.org/education/resources/edu-multiple-choice-essay-examinations.aspx>
- FM-09-05 Exam FM Sample Questions with solutions
- FM-09-07 Sample Questions and Solutions for *Derivatives Markets*
- FM-22-05 Review of Calculator Functions for the Texas Instruments BA-35
- FM-23-05 Review of Calculator Functions for the Texas Instruments BAII Plus

6. Instructions in Study Note FM-23-05 would also apply to the Texas Instruments BAII Plus Professional calculator, though additional methods may also be available.
7. A survey for examinations FM, M and C will be available on the SOA and CAS web sites after the examinations have been administered. Candidates are encouraged to provide feedback on the course readings and the examinations that they have taken.
8. Several book distributors carry some or all of the textbooks for the SOA and CAS exams. A list of distributors is available at: <http://www.soa.org/education/course-catalog/edu-catalog-detail.aspx>

Any book distributor who carries books for SOA or CAS courses may have its information included on the SOA Web site unless the SOA office receives substantial complaints about service. Candidates should notify the Publication Orders Department of the SOA in writing if they encounter serious problems with any distributor.

9. Candidates may use the battery or solar-powered Texas Instruments BA-35 model calculator, BA II Plus*, BA II Plus Professional*, TI-30X, TI-30Xa or TI-30X II*. 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 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 TI-30X II, BA II Plus and BA II Plus Professional will need to be cleared by the examination supervisor upon the candidate's entrance to the examination room.*

10. Information regarding various seminars/workshops and study manuals is available at:

<http://www.soa.org/education/course-catalog/edu-catalog-detail.aspx>

These seminars/workshops and study manuals do not reflect any official interpretation, opinion, or endorsement of the SOA or the CAS.

11. A candidate planning to seek admission to the SOA should submit the Application for Admission as Associate *before* completing the education requirements for Associateship as detailed in the *Spring 2008 Catalog*.

In addition to the examination requirements, all prospective SOA and CAS Associates will be required to attend and successfully complete a seminar on professionalism prior to admission as a member. See the *SOA Spring 2008 Basic Education Catalog* or the *CAS 2008 Syllabus of Examinations* for more information.

12. The SOA and the CAS provide 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 SOA or the CAS. The Societies are grateful to the authors for their contributions in preparing study notes.

The SOA Associateship and Fellowship examinations are jointly sponsored by the American Academy of Actuaries (AAA) and the Conference of Consulting Actuaries (CCA) and jointly sponsored and administered by the Canadian Institute of Actuaries (CIA). In addition, Exams P, FM, MFE and C are jointly sponsored and administered by the CAS.