

EDUCATION AND EXAMINATION COMMITTEE OF THE SOCIETY OF ACTUARIES
SYLLABUS & EXAMINATION COMMITTEES OF THE CASUALTY ACTUARIAL SOCIETY

SUMMER/FALL 2007
EXAM P/EXAM 1

PROBABILITY

INTRODUCTORY STUDY NOTE

1. The Probability examinations for Summer and Fall 2007 will each be three-hour exams. The exam is now being administered in most locations as a computer-based test. Details on this appear earlier in the catalog in the *Exam P Computer-Based Testing Administration Details* section and are posted in the Exams and Jobs section of the SOA Web site (www.soa.org).
2. The exam will consist of 30 multiple-choice questions. Each multiple-choice problem 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 this exam. All other questions will be considered in the scoring. The score for the examination is determined solely on the basis of correct answers. 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 *Fall 2007 Basic Education Catalog* of the SOA or the *2007 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 Summer/Fall 2007. Items marked with # are new/updated for these sessions.

- P-11-07# Introductory Study Note (this study note)
Exam P Tables
- P-09-07# Exam P Sample Questions with solutions
([Question](#) and [solution](#) # 124 added)
- P-21-05 Risk and Insurance

The study note entitled “Risk and Insurance” is provided to acquaint candidates with the language of insurance. It is not intended to introduce new mathematical concepts, but rather to introduce candidates to terminology, context, and applications which they may not have seen before and which may be used in the examination. The mathematical concepts tested in the Exam P examination are covered entirely by the published texts suggested in the course of reading listed in the *Fall 2007 Basic Catalog* and the *2007 Syllabus of Examinations*.

- 6. A copy of the mathematical tables and information to be used during the exam is enclosed. Candidates should familiarize themselves with the formats and contents of these tables. A copy will be available during in the CBT examination by clicking on the “Exhibit” button on screen. A paper copy will be included with the paper and pencil examination. Note that candidates will not be allowed to bring copies of the tables into the examination room.
- 7. Several book distributors carry some or all of the textbooks for the Society of Actuaries exams. A list of distributors is available at: <http://www.soa.org/education/course-catalog/fall-exam-session/2007/edu-fall-2007-study-note-information.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.

- 8. 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 cannot 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.*

- 9. Information regarding various seminars/workshops and study manuals is available at: <http://www.soa.org/education/course-catalog/fall-exam-session/2007/edu-fall-2007-study-note-information.aspx>
These seminars/workshops and study manuals do not reflect any official interpretation, opinion, or endorsement of the Society of Actuaries or the Casualty Actuarial Society.

10. 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 *Fall 2007 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 Fall 2007 Basic Education Catalog* or the *CAS 2007 Syllabus of Examinations* for more information.

11. The Society of Actuaries and the Casualty Actuarial Society 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 Casualty Actuarial Society or the Society of Actuaries. 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 joint sponsored and administered by the Canadian Institute of Actuaries (CIA). In addition, Exams P, FM, and C are jointly sponsored and administered by the CAS.