

Casualty Actuarial Society

Pass Mark for CAS Exam 3L

The primary objective of setting the pass mark is to pass candidates who demonstrate a mastery of the material at roughly consistent levels with each exam administration. This is more difficult than it appears, because the actual results for each administration are a function of both the preparedness of the candidates and the difficulty of the exam. Since members of the CAS Examination Committee and their experience levels change over time, this can (and does) result in changes in the difficulty of the exam at each administration.

The Examination Committee uses a series of benchmarks to gauge the candidates' overall knowledge of the material. First, a panel of experienced committee members evaluates the exam and determines a score to be achieved by a minimally qualified candidate. This process sets a baseline for determining the final pass mark. After the initial grading takes place, the results for each individual question are analyzed for how well they distinguished between those who demonstrated that they "knew the material well" and those who did not. In addition, the distribution of total scores is analyzed and compared to past exam distributions. This information helps the Committee determine whether changes in candidate performance are driven by differences in the difficulty of the exam or by a better or more poorly prepared group of candidates.

The Examination Committee reviews the statistics on each question as well as comments received from candidates to determine whether any of the questions were flawed. Once the Examination Committee identifies a flawed question, the committee decides if the question should be dropped from the exam or the question should be graded with multiple answers. If the question is dropped from the exam, then the exam is graded with less than the original number of points.

Many people are involved in the deliberations of the pass mark. After the grading session, the Examination Committee part chair submits a report to the general officer of the exam series and the Examination Committee chair. The report includes the pass mark recommended by the part committee, a detailed analysis of the exam, and a description of any unusual questions or situations that required special handling. The general officer and chair discuss the recommendation with the vice president-admissions to finalize the pass mark. More detail about the exam and grading process can be found in the section "Looking at the CAS Examination Process" in the Admissions/Exams – Exam Information section of the CAS web site.

The CAS releases the pass score information for Exams 5-9 after the appeal deadline for the exam session has passed. The purpose of releasing the pass scores is to help candidates prepare for future exam sittings. The 75th and 95th percentile scores are also released for each exam. These two key statistics indicate the performance level achieved by the better prepared candidates on the exam.

Selecting the exact point that determines the passing candidates is a difficult decision that the Examination Committee does not take lightly. Unfortunately, one question can mean the difference between passing and failing. Thus, candidates are encouraged to aim for higher performance levels than the level needed to barely pass prior examinations.

Pass marks for related exams of previous years are included to provide candidates with a context for the most recent pass mark.

CAS Exam 3L—Models for Life Contingencies and Statistics

<u>Exam 3L</u>	<u>Total Points</u>	<u>Pass Mark</u>	<u>95th Percentile</u>	<u>75th Percentile</u>	<u>Comments</u>
Spring 2011	50	29.50	41.50	33.50	
Fall 2010	50	28.00	43.50	32.50	
Spring 2010	50	30.00	46.00	37.50	
Fall 2009	50	25.00	37.00	28.50	
Spring 2009	48	26.50	40.50	33.00	Question 2 was invalid.
Fall 2008	50	29.00	45.00	35.00	
Spring 2008	50	28.50	45.50	38.00	Question 24: No penalty applied for answers other than C
<i>Note: Prior to 2008, Exams 3L was offered with Exam 3F as one examination: Exam 3. The following information is from the combined examination.</i>					
Fall 2007	80	42.50	67.50	57.50	Question 18: answers D or E were accepted.
Spring 2007	76	41.00	56.50	44.50	Question 23: answers C or D were accepted. Questions 35 and 36 were invalid.
Fall 2006	80	44.00	60.00	47.00	
Spring 2006	80	42.50	58.00	45.50	
Fall 2005	80	44.00	59.50	45.50	
Spring 2005	80	49.00	67.50	54.00	
Fall 2004	80	47.50	63.00	52.50	Question 38: answers A or B were accepted.
Spring 2004	80	45.00	61.00	47.00	
Fall 2003	80	47.00	66.00	54.00	Annotated answers posted as one time reference.