



# Post Exam Summary Spring 2023

In light of the discontinuation of Examiners' Reports in 2020, the CAS has recognized the need to fill the void left in candidates' understanding of effective study strategies and overall exam performance. To bridge this knowledge gap, we are introducing the new "Post Exam Summary" crafted by the Syllabus and Examination Working Group. This resource is designed to provide candidates with insightful observations on candidates' exam performance, coupled with expert recommendations for improvement. The Post Exam Summary comprises a general summary section that applies universally to all constructed response exams, followed by individual sections for each of the exams administered during the last sitting. In the future, we look forward to expanding on this format and continuing to enhance this summary.

## General Observations and Study Tips:

- Candidates should note that the instructions to the exam explicitly say to show all work; graders expect to see enough support on the candidate's answer sheet to follow the calculations performed. While the graders make every attempt to follow calculations that were not well-documented, lack of documentation may result in the deduction of points where the calculations cannot be followed or are not sufficiently supported.
- Incorrect responses to one part of a question did not preclude candidates from receiving credit for correct work on subsequent parts of the question that depended upon that response.
- Candidates should be cognizant of the way an exam question is worded. They must look for key words such as "briefly" or "fully" within the problem. We refer candidates to the Future Fellows article from December 2009 entitled "[The Importance of Adverbs](#)" for additional guidance on this topic.
- Some candidates provided lengthy responses to a "briefly describe" question, which does not provide extra credit and only takes up additional time during the exam.

- It should be noted that all exam questions have been written and graded based on information included in materials that have been directly referenced in the official Syllabus, which is located on the CAS website. The CAS takes no responsibility for the content of supplementary study materials and/or manuals produced by third parties and/or individuals which are not directly referenced in the official Syllabus.
- Candidates should be prepared for questions covering all tasks on the content outline or syllabus, including topics that may not be tested every exam sitting. Candidates have historically performed poorly on some topics that are tested less regularly (such as calculating and evaluating unallocated loss adjustment expense).

## **Exam 5 Specific Comments:**

- Candidates should justify all selections when prompted to do so. For example, if the candidate selects an all-year average and the question prompts a justification of all selections, a brief explanation should be provided for the reasoning behind this selection.
- When prompted to provide multiple items in a response (e.g., “identify two constraints” or “recommend four changes”), candidates should make sure to list items that are unique. If items listed are too similar, then the graders can only award credit for one item.
- Candidates struggled to correctly consider renewal probabilities and discounting when calculating the lifetime profit of a cohort of insureds.
- Candidates had difficulty applying off-balance factors when calculating rate change for a rating plan with multiple classes.
- Many candidates did not fully understand the concepts of insurance to value and coinsurance.
- Candidates had difficulty with frequency-severity techniques for estimating unpaid claims, and especially calculating and selecting tail severities to use with such techniques.
- Many candidates struggled applying techniques to estimate unpaid unallocated loss adjustment expense.

## **Exam 6C Specific Comments:**

- Some candidates had a harder time describing the automobile regulatory system in British Columbia as they may fail to realize the topic is still covered by the KPMG Regulatory Oversight paper.

- Regrettably, a portion of candidates chose not to tackle the rating agencies question. Despite its manageable level of difficulty, it appears that some candidates may benefit from devoting more attention to this topic in their studies.
- Candidates should make sure to fully review the Excel appendices of the educational notes. It was observed that many candidates struggled with questions based on the Liability for Remaining Coverage (LRC) and discounting Educational Notes. Specifically, candidates performed poorly in the calculation of loss component and unwinding of discounting.
- Considering that IFRS 17 is an important topic and that there are not a lot of past sample questions, new questions will continue to be published in the future following each exam administration.
- Candidates should justify all selections when prompted to do so. For example, if the candidate selects an all-year average and the question prompts a justification of all selections, a brief explanation should be provided for the reasoning behind this selection.

## **Exam 6US Specific Comments:**

- Candidates struggled with how certain ratemaking topics aligned with the NAIC's regulatory mission. In addition, many candidates did not provide enough justification to support their positions.
- Many candidates had an incomplete understanding regarding how certain components of investment income are determined as well as how they are reflected on the Income Statement versus the Cash Flow Statement.
- Candidates had difficulty describing possible justifications for a company changing their accounting principles. Additionally, candidates were not able to consistently explain consequences related to differences in statutory and tax accounting treatments.
- Candidates had trouble recalling specific disclosures related to the Statement of Actuarial Opinion. In addition, candidates performed poorly when attempting to describe disclosure requirements related to the Actuarial Report supporting the Statement of Actuarial Opinion.

# Exam 7 Specific Comments:

## Estimation of Policy Liabilities Section

- Many candidates had difficulty applying properly all the necessary steps of the bootstrap reserving methods.
- Some candidates used the cumulative loss triangles provided as if they were incremental loss triangles. Additionally, some candidates wrongly provided total reserves in response to a prompt asking for unpaid claims for a specific accident year. Candidates should read the questions carefully and pay particular attention to the type of information provided in the question and the type of information requested.
- Many candidates failed to recognize that a negative intercept is a problem when using the least square method or failed to handle negative incremental incurred losses properly using the ODP bootstrap method. Candidates should know key assumptions underlying different reserve models, be able to recognize data or model issues, and apply relevant adjustments.

## ERM Section

- Many candidates struggled to calculate the impact of projection risk on the coefficient of variation of total modelled losses, as detailed in the Enterprise Risk Management source material. Candidates should be prepared to analyze risks quantitatively as well as qualitatively, as outlined in the Content Outline. Therefore, candidates should pay attention to numerical examples in the Enterprise Risk Management source material as well as qualitative information.
- Candidates struggled to calculate risk measures when provided a dataset with a very large number of simulated losses, for example, trying to manually sort the simulations instead of using the percentile function available in the testing environment. Candidates should review and practice functions available in the testing environment to save time during the exam. Also, candidates should be aware that some Microsoft Excel shortcuts are not available in the testing environment, for example, locking-in cell references with F4.

## General Observations

- Even when the Weibull distribution formula was given to candidates in a pop-up, some candidates assumed a totally different distribution or incorrectly copied the form and parameters. Candidates should pay particular attention to graphs or formulas available in the pop-up function of the testing environment.

# Exam 9 Specific Comments:

- Candidates did very well on the exam overall, including on the integrative question. Overall, the vast majority of candidates responded to every question, and most candidates successfully passed the exam.
- There were slightly more deductions for calculation errors than typical. Candidates are reminded that the instructions to the exam explicitly say to show all work; graders expect to see enough support on the candidate's answer sheet to follow the calculations performed. While the graders make every attempt to follow calculations that were not well-documented, lack of documentation may result in the deduction of points where the calculations cannot be followed or are not sufficiently supported.
- In general, candidates performed strongest on 'Section C. Financial Risk Management' and 'Section D. Rate of Return,' but had difficulty with calculations on Catastrophe Bonds.
- If a prompt asks candidates to evaluate the impact of two concepts, it is expected that they include both concepts in their response, either with separate evaluations or with an evaluation that includes both concepts.