
CAS Exam 6-US – Fall 2013 to Present
ALL 10 – Online Review and e-Review



CAS Exam 6-US

ALL 10 – Company Direction and Initial Comments

November 2018

Writing a report like this one has been on my “to do list” for quite some time. But as many of us experience daily, there is always too much to do and not enough time to do it in.

Hopefully, you will find my comments relevant, my suggestions on how to best prepare insightful, and recommendations to achieve a passing score very much attainable.

ALL 10 – Preparation Materials for CAS Exams 5, 6 and 9 Moving Forward

For nearly 20 years, ALL 10 has produced study materials for candidates preparing for the upper level CAS Exams. It has been challenging to say the least, given the number of changes the CAS has made to the syllabus over time, especially with its re-write in 2011, the adoption of the two text books for Exam 5, the CAS Financial Reporting text for Exam 6, and the numerous re-writes to the syllabus for Exams 7 – 9.

In light of the above, we assessed where our resources can be best utilized, and have chosen to focus our efforts solely on Exams 5, 6 and 9.

By doing so, we will re-direct our efforts to producing additional exam relevant study aids to the above referenced exams. Among other key study aids in development, we are refining a large number of our Excel spreadsheets for our customers to download, as supplements to our article summaries, so that they can more quickly assimilate and prepare for high point computational questions likely to appear on the exam.

These Excel files will be released over time and on a timely basis coincident with our recommended syllabus reading schedule.

How to Achieve a Passing Score? Master Your Ability to Respond to Short Answer Questions on the Exam

If there are two takeaways I hope candidates preparing for this exam walk away with after reading this report, it is this:

1. The predominant question type on Exam 6 is short answer, not computational.
2. Exam 6 candidates should be cautious about spending too much time preparing to answer computational questions, at the expense of not spending enough time preparing to answer short answer questions.

I know this is not what most want to hear since working computational problems is preferable.

But if you keep these realities in the forefront of your mind, and prepare accordingly, you will be much happier with your performance after completing and walking out of the exam on April 30, 2019.

Also, the good news is that once you get into habit of working short answer questions, it becomes easier and not as much of a grind as when you first begin working these types of problems.

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ALL 10 – Company Direction and Initial Comments

Questions

If you are planning to sit for Spring 2019 Exam 6, you undoubtedly have questions on how best to prepare. It is my hope that many of the questions you may have are answered in this report.

However, if you have specific questions that are not addressed in this document, please contact us via email at support@all10.com. In addition, if you have specific types of study aids that you would like us to develop, let us know as well, since other candidates may have the same request.

We promptly reply to all inquiries.

Start slowly, build momentum over time, and celebrate often the goals you achieve during your exam preparation period.

Thank you for your patronage over the years, and best wishes in preparing for Spring 2019 Exam 6.

Rich Zarnik, ACAS
ALL 10, Inc. Owner

CAS Exam 6-US – Fall 2013 to Present

Overview

The Exam 6-US Syllabus

At first glance, this exam appears to be a “beast”, in terms of the number of syllabus reading pages. And it is!

The Fall 2018/Spring 2019 file "[CompletePDF-Exam6US.pdf](#)", downloadable from the CAS 6 Syllabus page, comprises 1891 pages. And while not all pages in this file are part of the “required readings”, this file does not contain additional required readings, such as those by Cook and the 6 chapters by Porter, due to copyright purposes.

However, one does not have to have a complete understanding of the entire syllabus to achieve a passing score.

There are numerous pages, within the syllabus readings, that do not require a great deal of review for a variety of reasons:

One is that certain readings contain content that simply does not lend itself to being directly tested (e.g. certain content within the SSAP readings, while informative, is not likely to be examined at all).

Another is that other readings contain test worthy content, but such content is either not likely to be examined in-depth and/or more likely to be tested infrequently (e.g. content in Porter Chapter 6).

Yet another reason is that certain readings will be more heavily tested to the exclusion of other readings (e.g. content from Chapter 15 on Schedule P is more likely to be tested heavily relative to the content in the FASB Accounting Standards Codification 944).

The good news is that there have been fewer changes to the Syllabus readings lately, relative to changes in the past. This in turn creates a more stable set of syllabus readings to better gauge what are the more likely readings to be tested.

CAS Exam 6 Statistics

Let’s begin by reviewing some of the key statistics associated with the exam since Fall 2013:

Exam	Number of Candidates *	# of Passing Candidates	Total Points	Pass Mark	Pass Mark As a % of Pts	Effective Pass Ratio	Total Questions	Avg Pts per Question
Fall 18			69.50				26	2.67
Spring 18	427	211	71.00	49.00	69.0%	49.4%	27	2.63
Fall 17	477	257	70.00	49.75	71.1%	53.9%	28	2.50
Spring 17	469	211	73.50	51.50	70.1%	45.0%	27	2.72
Fall 16	532	292	73.50	51.75	70.4%	54.9%	26	2.83
Spring 16	463	199	81.25	58.00	71.4%	43.0%	27	3.01
Fall 15	468	174	77.50	52.00	67.1%	37.2%	26	2.98
Spring 15	462	211	81.25	54.75	67.4%	45.7%	26	3.13
Fall 14	476	195	81.25	56.25	69.2%	41.0%	25	3.25
Spring 14	512	221	87.00	58.75	67.5%	43.2%	27	3.22
Fall 13	584	249	87.00	60.75	69.8%	42.6%	29	3.00

* Excluding Candidates below 50% of the Pass Mark

In general, total points and average points per question have decreased over time, while the effective pass ratio has been slightly increasing over time.

However, given that effective pass ratios have ranged from the low 40s to low 50s over the past four years, with the exception of the Fall 2015 exam, it is clear that candidates taking this exam find it challenging to achieve a passing score.

Last Updated: 12/10/2018

CAS Exam 6-US – Fall 2013 to Present

Overview

The Predominant Question Type is Short Answer

First, the point value of short answer questions account for about 70% of the total points on the exam, and most candidates sitting for this exam have not been trained to answer short answer questions.

Most candidates sitting for this exam recently passed either a lower level/joint CAS-SOA exam, or CAS Exam 5, where the predominant question type is computational.

Even the computational type questions on Exam 6, (e.g. an IEE chapter 18 question), often have subpart questions to them that require short answer responses.

Further, a lot of the material within the syllabus readings is “dry”. Studying this type of material leads to real challenges in determining what is important and what is not.

CAS Examiner’s Reports

CAS Examiner’s Reports, dating back to the Spring 2014 Exam, provide candidates preparing for this exam with a number of useful preparation suggestions. Here are some of the more important ones:

- i. “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.”
- ii. “Candidates should justify all selections when prompted to do so.”
- iii. Candidates should try to be cognizant of the way an exam question is worded. They must look for key words such as “briefly” or “fully” within the problem.
- iv. “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.”
- v. “Candidates should be cautious of relying solely on study manuals, as some candidates lost credit for failing to provide basic insights that were contained in the syllabus readings.”
- vi. “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 outside corporations and/or individuals which are not directly referenced in the official syllabus.”

“My Why”

In light of the above, and to assist those to achieve a passing score, I chose to develop an online review course with three main goals:

1. Create article summaries based solely on the content of the actual reading. This was done by first conducting a “page” by “page” review of the syllabus readings, summarizing the most salient content that aligned with the CAS LO and KS, and disregarding any superfluous material in the readings during the summarization process.
2. Provide robust solutions to past CAS computational questions. CAS solutions can be vague, lacking in detail, and difficult to follow at times. ¹
3. Develop new and innovative products. These include (1) R.A.C.E questions and online video solutions, and (2) e-Review questions that include both video based and written solutions.

¹ It’s important to mention that it is not the purpose nor the objective of CAS examiners to provide robust solutions to past CAS questions, but rather to provide sample answers of the most common correct responses.

CAS Exam 6-US

ALL 10 – Online Review Course Description

3 Main Goals in developing the Online Review Course:

I. Create article summaries based solely on the content of the actual reading.

Many providers of CAS Exam 6 Study Materials provide summaries of the content found in the actual syllabus readings “in their own words”. If I were a candidate preparing for the exam, I’d find this beneficial since the syllabus readings are extremely wordy and filled with extraneous information.

However, the approach our company has taken to develop our study materials is radically different.

As noted by Examiner’s on the previous page, “all exam questions have been written and graded based on information included in materials that have been directly referenced in the official syllabus”. That is exactly why the source of our summarizations is the content within the actual syllabus readings.

To view how we summarize each and every syllabus reading page, go to <http://www.all10.com/exam-6/> and click on the icon “Using the Study Aids”.

Two other key criteria we used in developing the manuals are as follows:

1. Produce summaries that reduce the syllabus reading material to no more than 45% of the original content.

Using the previously referenced 1890+ page "CompletePDF-Exam6US.pdf" as a surrogate for the total number of syllabus reading pages, our article summaries comprise 634 pages which reduces the syllabus readings to less than 40%.

The remaining study manual pages, approximately 1000, represent past CAS questions and solutions. Thus, 60+ % of the manual is focused on categorizing past CAS questions by topic and presenting comprehensive solutions.

2. Include charts, graphs, tables, etc. in the summaries to reinforce key concepts discussed in the readings.

For example, we have numerous tables (including about 90% of the Odomirok/CAS Financial Reporting text tables) inter-mixed with our summaries of Chapters 1 – 26, and 30 of this text.

In light of the above, we believe our summarization process aligns well with CAS Examiner’s comments on study manuals to contain content that directly reflects the official syllabus readings.

CAS Exam 6-US

ALL 10 – Online Review Course Description

3 Main Goals in developing the Online Review Course:

II. Provide robust solutions to Past CAS computational questions

In our opinion, there are no better practice questions to work to best prepare for the actual exam than past CAS questions.

Why?

First, as stated by the CAS, the questions are developed by a team that typically includes new Fellows, who are placed on an exam that best fits the skill sets of the question writer. A three year commitment is requested by the Exam committee to maintain quality and consistency in the development of the exam.

After submitting questions, the entire committee meets for two days to refine the questions and assemble the exam. This process results in a set of questions that most candidates find challenging, as evidenced by the numerous posts in the actuarial outpost right after an exam is administered.

Second, exam 6 now has a critical mass of past CAS questions and solutions for candidates to review.

With the administration of Fall 2018 exam, there are approximately 270 questions (which excludes questions no longer relevant due to syllabus changes) available for candidates to work since the release of the Spring 2011 Exam.

Unfortunately, solutions to computational questions provided by the CAS are not always intuitive².

In fact, it takes a great deal of time to review a number of past CAS solutions in an effort to understand the nuances in the solution process.

To that end, many of our solutions offer unique elements to overcome these shortcomings, including:

1. **Initial comments.** To assist candidates in formulating an overall approach to solve a given question, we provide key excerpts from the syllabus readings to initiate your thought process on how to frame your solution. See numerous examples of our initial comments in our solutions to Chapter 15, Schedule P, in our [Study Program Excerpts Report](#).

Formulating a clear path to problem solving is the biggest stumbling block for candidates when attempting to solve questions with high point values. By providing a framework on how to problem solve, one can employ a step by step process in arriving at the final answer.

2. **Step by Step solution processes** in both summarized and detail formats.

In many of our solutions, we suggest that candidates write several equations down first, before solving a problem, to assist in developing a step by step problem solving process.

Rather than describe the process, see our solution to question 12 from the Spring 2016 exam, found in our Study Program Excerpts Report, as an example.

Our approach to computational problem solving is instructional. It is not meant to be replicated on the exam as it would require too much time to reproduce in its entirety. However, candidates that adopt a blended problem solving process that streamlines our approach with their current problem solving methods can provide Examiner's with what they seek; that being "enough support on the candidate's answer sheet to follow the calculations performed."

² Again it's important to mention that it is not the purpose or objective of CAS examiners to provide robust solutions to past CAS questions, but rather to provide sample answers of the most common correct responses.

CAS Exam 6-US

ALL 10 – Online Review Course Description

3 Main Goals in developing our Online Review Course:

III . Develop new and innovative products. These include:

- (1) R.A.C.E questions and online video solutions
- (2) e-Review questions and online video solutions

Let's look at each of these individually.

(1) R.A.C.E. questions and online video solutions.

R.A.C.E. (Read, Assess, Choose, Execute) is an interactive product that we developed and initially released in the summer of 2014 to train candidates on how best to answer CAS exam short answer questions.

With the short answer component on CAS exams accounting for approximately 65-70% of the points on exam 6, preparing quality responses is an invaluable skill to master.

Why we developed R.A.C.E.

This was in direct response to the following suggestions made by CAS examiners in their Reports:

- 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.
Candidates should note that a restatement of a numerical selection in words is not a justification.
- Candidates should try to 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 information 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.

Why candidates should incorporate a R.A.C.E. process into their study habits

Consider the following Examiners' comments on common errors to short essay responses to Spring 2018 CAS Exam 6, question 1, part b, which asks "Identify two types of insurance regulation from which surplus lines are exempt, and briefly describe a possible benefit to policyholders of each exemption."

Candidates were expected to identify two types of information used by a price optimization rating algorithm and explain how they may be unfairly discriminatory since they don't reflect differences in expected costs.

Common errors include:

- Stating two pieces of information (including examples such as age, gender, income, and credit score) that either are not unique to price optimization or do not explicitly identify that the actual information used is price elasticity of demand, propensity to shop, etc.
- Stating a propensity to file claims (as opposed to complaints). Not stating that the information doesn't reflect expected cost or risk differences.

While we recognize that our R.A.C.E. process to answer short answer questions is not ideal for everyone, we strongly recommend that candidates employ some type of structured process to consistently produce quality short-answer responses to short answer questions.

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CAS Exam 6-US

ALL 10 – Online Review Course Description

3 Main Goals in developing our Online Review Course:

III. Develop new and innovative products.

(2) e-Review questions and online video solutions

Product Background

Back in 2014, we wrote to all candidates that attained Fellowship to offer our congratulations.

We also asked them a single question: Having attained Fellowship, are you willing to partner with us to write questions that mirror the level of difficulty of actual CAS Exam questions, and provide appropriate solutions?

Most Fellows chose not to respond. I cannot blame them! Having spent years taking these exams and having attained Fellowship, they simply wanted to reclaim their personal life. Further, new Fellows are recruited by the CAS to write questions for the CAS exams. This is often a thankless undertaking on their behalf, for which we should all be grateful for their efforts.

However, several Fellows did respond which lead to the creation of the “e-Review” product.

Product Purpose

The purpose of the e-Review product was three fold:

- i. To produce questions and solutions that mirror the level of difficulty of actual CAS Exam to the extent possible.
- ii. To offer video based solutions, in lieu of paper based solutions, in an effort to encourage candidates to engage in **Active Learning**.

See our description of what constitutes **Active Learning** in our [Study Program Excerpts Report](#).

- iii. To create syllabus section tests, with questions drawn from smaller subsections of the entire syllabus, to assist candidates in determining “what they know and what they don’t know” in the weeks leading up to their final exam preparation.

Product Structure

We structured the tests as syllabus section tests, containing fewer questions than would be normally seen on an actual CAS Exam. We did so for the following reasons:

- i. To provide more questions from fewer readings to give you a better indication of where your strengths and weakness lie. As mentioned previously, CAS examiners have 40-50+ articles to develop questions.
Creating a 26-question exam that contains one question from 26 of the 40-50+ available readings does not help a candidate to better assess what they know and what they don’t know.
- ii. To create tests that require less time to complete, while offering a greater number of tests that still cover the vast majority of content from both texts.

Having received, and thanked, previous customers who shared their comments about the quality of these questions, and suggested refinements to some of the questions and solutions, we believe these tests achieve their intended objectives.

Of course, having access to more questions is preferable, so we have developed quite a few of our own, as discussed on the next page.

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Note Cards

We have developed over 1,000 (2 per page) of downloadable Notecards. These note cards are grouped by Syllabus Section.

Our note cards also contain blank card to create your own notecards. Notecard content is best remembered by the author of the notecard. It also gets you in the habit of writing short responses, which is exactly what you will be doing on the exam.

Additional Practice Tests and Exams

We provide two types:

1. Four Practice Tests (Syllabus Section Based)
2. Three Practice Exams

Practice Tests and Practice Exams

A. Practice Tests

1. Practice tests comprise a larger number of questions from a smaller number of readings than you would see on an actual exam. This is exactly what candidates need; more questions to work on from a smaller number of readings to get a better idea of what you know and what you need to work on.

Comparing your answers to our solutions should give you a good idea of what you know and what topics you may want to spend further time reviewing prior to sitting for the actual exam.

2. Many of the questions begin with " According to ...".

On an actual exam, none of the questions will begin with " According to ..." . Prefacing questions in this manner was used to assist candidates in their recall of what topics are discussed by author and article.

3. In our opinion, our solutions would be deemed sufficient and acceptable by Examiners. However, these solutions would not be the only acceptable ones.

B. Practice Exams differ from Practice Tests in two main ways:

1. They include questions from all Syllabus Sections which is more representative of actual CAS Exams.
2. The questions tend to be more difficult than those in the Practice Tests, and thus require more time to complete.

From least to most difficult, work Practice Tests, Practice Exams and e-Review Exams in this order.

CAS Exam 6-US

ALL 10 – Online Review Course Description

Study Programs for CAS Exam 6

We offer two Study Programs for Spring 2019 CAS Exam 6:

1. Online Review Course, Study Materials and e-Review
2. Study Materials and e-Review

The following chart highlights the specific components that accompany each program.

ALL 10 - Exam 6 - Spring 2019 Product Offerings

Online Review Course and Study Materials (OLRC) vs. Study Materials (SM)

Purchase Price

Digital download available through www.all10.com
 Print option purchase at ABS or Actex. Delivery by ABS/Actex

OLRC		SM	
Digital	Digital+ Print	Digital	Digital+ Print
\$445	\$505	\$350	\$410

Study Manuals (in Digital or Digital+Print)

Accompanies the purchase of either the OLRC or SM

Study Manuals Volumes and Page Count				
Vol 1	Vol 2a	Vol 2b	Vol 2c	Total
497	342	436	462	1737

Preparatory Tests (in Digital Download Only)

Accompanies the purchase of either the OLRC or SM
 Six e-Review Tests (3-Syllabus Section Based; 3-All Sections)
 Four Practice Tests (Syllabus Section Based)
 Four Practice Exams

Preparatory Tests - Vol 3		e-Review Tests		Total	
Questions	Points	Questions	Points	Questions	Points
		136	330		
90	173				
<u>80</u>	<u>148</u>				
Total	170	321	136	330	306 651

Online Review Course Components

a. Downloadable Notecards - 2 cards per page

	# of Cards
Syllabus Sections A	114
Syllabus Sections B	55
Syllabus Sections C - Financial Reporting	251
Syllabus Sections C - Other than Financial Reporting	75
Syllabus Sections D	42
Syllabus Sections E	<u>50</u>
	587

b. Weekly Emails - Don't Fall Behind

Beginning 12/31/2018 and identifying a manageable number of readings to review weekly
 Concluding on 3/25/2019 with additional email guidance through the April 30 Exam date

c. Weekly Question Downloads

Beginning 12/31/2018. Download recommended questions from the manual to work weekly

d. Access to instructional and problem solving videos viewed from desktops, laptops, and tablets

Not available on smart phones.

e. Access to our R.A.C.E. series of short-answer problem solving videos

f. Final Review Guides - Key Concepts and Formulas Tested - Select Articles

COPLFR, GAO, Gov Ins SN, Sch F, IEE, RBC, NAIC IRIS, NAIC Telematics - 1, NAIC Telematics - 2
 Loss Reserve Discounting, NAIC Telematics - 2, Weibel

These guides distill the most important content from the article summaries,
 and serve as your "Go To" guides during your final preparation

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ALL 10 – Online Review Course Description

Printed Manuals

Many providers of upper level CAS exam study materials offer candidates a pdf download option only. However, there are distinct disadvantages of only having pdfs to study from, which are described on the next page.

Thus, we strongly recommend that you have manuals that are printed and bound at your disposal.

To that end, we have partnered with [Actuarial Bookstore](#) and [Actex](#) to allow you the option of purchasing our study manuals in print format.

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ALL 10 – Online Review Course Description

Benefits of having both Digital and Printed Manuals at your disposal

<u>Digital Manuals</u>	<u>Printed Manuals</u>
1. Download to laptops and tablets.	1. Mark up and handwrite personal notes. Writing crystalizes thinking and the most effective way to do this is by using pen/pencil to jot down your thoughts on what to focus on.
2. Quickly access content via bookmarks. All of our study manuals and prep tests contain bookmarks to summaries, questions and solutions.	2. Portability. Carry the manuals you need, leave the rest at home. 3. Ease of use. Spiral binding allows you to flip to specific content quickly. 4. Retention. You stare at computer screen data daily. Given the dense material contained in study manuals, you are more likely to absorb and retain the material better by reading from a book.

In short, studying material in print and digital download formats enhances your ability to understand and recall material.

Further:

- We offer this option solely as a convenience to our customers.
- We make no profit in offering our study manuals in printed format; our cost is simply passed on to the buyer.

So consider purchasing our study materials in both print and digital format, and start studying!

Why two study programs

1. To provide products tailored to a candidate's needs.
Some candidates are just looking for study manuals and tests.
Others are looking for additional online assistance, especially those that had an unsuccessful sitting.
2. To provide alternative products to candidates that purchased third party exam material but did not pass.
Use of a single company's exam preparation product does not guarantee a "pass".
However, using study aids from different exam preparation providers can make a huge difference.
By having access to study material presented from several vantage points, one can choose which author's methods and approaches to problem solving best resonate with them. This in turn expands one's ability to retain the material and then transcribe that knowledge to paper on exam day.
3. To offer study programs at affordable price points.
We are not the most expensive, nor are we the cheapest provider of CAS Exam study materials.
Our study materials are fairly priced making them a cost-effective choice for those who expect a quality product that delivers exceptional value in exchange for their financial investment.

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ALL 10 – Online Review Course Description

2019 Course of Study

Our recommended study schedule follows the order of the syllabus readings and our online review course is designed as both an asynchronous and/or structured 12-week exam preparation course.

Purchase the program now and chart your own course of study and/or join in and follow our review course schedule which begins 12/31/2018 and concludes 3/25/2019.

This gives you about 5 weeks to focus solely on problem solving before the April 30th exam.

2019 Study Program – Description and Excerpts

Download our [Study Program Excerpts Report](#).

This report contains a written description of both study program components, and excerpts of various study materials.

We hope we have clearly identified what is and what is not included in each study program.

However, if you have any questions, email us at support@all10.com

We reply promptly to all questions.

We wish you the best in your preparation for the Spring 2019 CAS Exam 6.

-Rich

P.S. Product Evaluation - Free Trial

Try before you buy!

Sign up and you'll receive:

1 week access to all documents to select articles covered in our Online Review Course

An email from our support team, within 24 hours of signing up, with login credentials to access the e-Learning Center.

Concepts and Issues summaries by article

Data on past CAS exams by year

A preview of Article Summary, Problem Solving, and R.A.C.E. videos

Sign up at <http://all10.com/sign-up/>

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