Report to ECC from the Board of Examiners

SEMESTER 1 2019

PART III

BOARD OF EXAMINERS' REPORT

Publisher
The Institute of Actuaries of Australia
ABN 69 000 423 656
Level 2, 50 Carrington Street
Sydney NSW 2000
Tel: +61 (0)2 9239 6100, Fax: +61 (0)2 9239 6170
www.actuaries.asn.au

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CHAIR'S REPORT SUMMARY

1. Examinations

The Semester 1 2019 Part III examinations of the Actuaries Institute ("Institute") were held from the 23rd April to the 3rd of May 2019.

2. Pass Rates

The number of candidates presenting for the Semester 2 2018 Part III Exams, the number of passes and the resulting pass rates are shown in the table below, together with the corresponding numbers for the previous two exam periods.

Pass Rates by Part III and New Fellowship Program Courses

	2019 - Sem 1			2018 – Sem 2			2018 – Sem 1		
	Sat	**Pass**	**%**	**Sat**	**Pass**	**%**	**Sat**	**Pass**	**%**
2A Life Insurance	44	14	32%	71	18	25	78	22	28%
2B Life Insurance	55	20	36%	63	18	29	57	19	33%
LIRV Life Insurance and Retirement Valuation	68	19	28%						
3A General Insurance	132	10	8%	104	23	22	108	17	16%
3B General Insurance	60	14	23%	60	22	37	56	17	30%
5A Invest. Man. & Fin.	n/a	n/a	n/a	22	4	18	n/a	n/a	n/a
5B Invest. Man. & Fin.	27	5	19%	n/a	n/a	n/a	26	5	19%
6A GRIS	8	5	63%	n/a	n/a	n/a	19	8	42%
6B GRIS	n/a	n/a	n/a	15	6	40	n/a	n/a	n/a
SP9 ERM	96	56	58%	88	42	48	101	38	35%
SP1 Health & Care	15	6	40%	15	6	40	18	8	44%
C10 CAP	88	42	48%	88	47	53	80	43	54%
Total	**593**	**191**	**32%**	**526**	**186**	**35%**	**543**	**177**	**33%**

The assessment for this semester comprised 10% assignment and 90% for the exam which is comprised of three long answer exam questions. The newly introduced Fellowship subject's assessment comprised 20% assignment and 80% for the exam which is comprised of three long answer exam questions.

The Chief Examiners aim to produce a consistent standard of passing candidates, rather than a consistent pass rate from year to year. The overall pass rate for this semester is 32%, which is lower than the 35% pass rate for the previous semester and similar to the 33% pass rate for Semester 1 2018.

The pass rate for C3A hit a new low this semester. Detailed investigations into the exam were completed and the consistent view of those reviewing was that there was no difference in standard of the exam to previous exams.

Fellows

The number of members that will be made Fellows (subject to attendance at a Professionalism Course and paying any relevant exemptions) will be:

Number of Fellows

2019 (1)	2018 (2)	2018 (1)	2017 (2)	2017 (1)	2016 (2)	2016 (1)
29	29	27	39	30	37	32

Assignment

Assignments cover those parts of the syllabus which are either difficult to assess in an exam or historically have been areas of the course where candidates have performed poorly and where an in-depth exploration of the subject matter is warranted. Assignments focus on the higher levels of critical thinking such as analysis, evaluation and creating. The assignment involved spreadsheet calculations to test a candidate's knowledge, understanding and application of a technical area of the course. A component of the assignment also tests the candidate's written communication skills.

The following table provides a distribution of the assignment grades received by students:

Frequency Distribution for Semester 1 2019

Assignment Grade	Subject						
	2A	2B	LIRV	3A	3B	5B	6B
A	14%	5%	22%	14%	22%	19%	25%
B	34%	56%	37%	40%	37%	56%	50%
C	14%	24%	32%	18%	32%	19%	25%
D	23%	11%	6%	15%	6%	7%	0
E	13%	0	3%	10%	3%	0	0
F	0	4%	0	2%	0	0	0

Observations:

- The vast majority of students completed the assignment although we note that as the assignment was more challenging than the forum, this resulted in an overall reduction in marks for students.
- The introduction of the assessment of the assignment coincided with the removal of assessment for the discussion forums. This resulted in a reduced usage of the forums most notably for 3A where the number of forum posts dropped from 894 and 825 in the two semesters in 2018 to 4 in 2019. Although we are comfortable that the forum was of little use with regards to assessment, the lack of use of the forum may have contributed to the very poor result in 3A.

EXAM ADMINISTRATION

1. The Board of Examiners

The Board of Examiners oversee the Part III examination process of the Actuaries Institute. The Board of Examiners consist of the Chair and the Chief Examiners for each subject, supported by Institute staff.

The constitution for the Board of Examiners for this semester was as follows:

1.1. BoE Chair

Chair	James Pettifer

1.2. Chief Examiners

Course 2A:	Life Insurance	Anthony Brien
Course 2B:	Life Insurance	William Zheng
Course 3A:	General Insurance	Daniel Lavender
Course 3B:	General Insurance	James Fitzpatrick
Course 5B:	Investment Management & Finance	Charles Qin & Claymore Marshall
Course 6A:	Global Retirement Income Systems	Stephen Woods
Course 10:	Commercial Actuarial Practice	Bruce Thomson

1.3. Assistant Examiners

The Assistant Examiners for this semester were:

Course 2A:	Life Insurance	Jun Song & Julian Braganza
Course 2B:	Life Insurance	David Ticehurst & Robert Herlinger
Course 3A:	General Insurance	Ryan Anderson & Andrew Teh
Course 3B:	General Insurance	Elaine Pang & Chao Qiao
Course 5B:	Investment Management & Finance	N/A
Course 6A :	Global Retirement Income Systems	Jim Repanis
Course 10:	Commercial Actuarial Practice	Matthew Ralph

I would like to take this opportunity to thank all the members of the Board of Examiners and their assistants for their efforts in preparing and marking the examination papers. The management of the examination process is an extremely important function of the Institute and it is currently being run by a small group of committed volunteers.

1.4. Meetings of the Board

The Board met on three occasions this semester as part of the exam process as follows:

Meetings of the Board

Meeting	Purpose
17 January 2019	• Update on enrolment numbers and course offerings for this semester. • Identify Chief & Assistant Examiners and Course Leaders for each course for this semester.

Meeting	Purpose
	• Outline the responsibilities of Chief Examiners and this semester's schedule. • Review progress on the drafting of the exams to date
28 March 2019	• Discuss the status of this semester's examination papers, model solutions and sign-off process. • Discuss the marking spreadsheets and review the recruitment of markers.
7 June2019	• Review the recommended pass lists and treatment of borderline candidates.

2. Course Leaders

Course Leaders are appointed by the Institute to undertake a variety of tasks relating to modules 1-3 of the Part III education program. Course Leaders draft examination questions, conduct tutorials, monitor forums and assess the online participation mark. The following is a list of the Course Leaders for this semester:

Course Leaders

Course	Roles
2A	Exam: Stephen Edwards Tutorials, Forum Participation: Bruce Thomson
2B	Exam: Ashley Wilson, Peter Corbett, Lawrence Ng Tutorials: Richard Land Forum Participation: Han Gan
3A	Exam: Daniel Lavender Tutorials: Jeff Thorpe Forum Participation: Jacqui Reid
3B	Exam: Jacqui Reid Tutorials: Ben Qin Forum Participation: Jacqui Reid
5A	Exam: Charles Qin, Claymore Marshall Tutorials, Forum Participation: Marlon Chan
6B	Exam, Tutorials and Forum Participation: Vivian Dang
CAP	Exam: David Service, Vivian Dang, Young Tan, Colin Priest, Tim Gorst, Gaurav Khemka Post-Course Assignment: Sharanjit Paddam, Andrew Gale, Colin Priest, David Service
ST9	This course is run completely external to the Institute.
ST1	This course is run completely external to the Institute.

2.1. Scrutineers

The Scrutineers for Semester 1 2019 were:

Scrutineers

Course	Longer Answer Questions, Case Study Assignment and Exam
Course 2A	Amy McDonald, Kevin Chou, Clayton Roderick
Course 2B	Oliver Li, Anita Gan, Lawrence Uy
Course 3A	Jeremiah Cheung, Timothy Brown, Yu Sun
Course 3B	Alex Chen, Timothy Lee, Edwin Zhang
Course 5B	Mengyi Xu, Mathieu Jones
Course 6A	Kate Maartensz, Stuart Mules, David McNeice
Course 10	Janice Cheng (Life Insurance) Lawrence Uy (Investments) Zachary Tirrell (Health) Justeen Wong (GRIS) Timothy Lee (General Insurance) Alycia Amundson (ERM) David Chan (ESG) Kevin Pun (Banking) Wan Wah Wong (Data Analytics)

3. Exam Administration and Supervision

The Board of Examiners was ably assisted by Institute staff in the Education Team, Tony Burke, Karenna Chhoeung, Krystel Rowe, Eleanor Mazando and Ausa Chanthaphone. They were responsible for administering the entire process and ensuring key deadlines were met, compiling and formatting the examination papers, distributing material to candidates and to exam centres, processing results and collecting historical information to produce this report. They did a great job and the Board of Examiners team is indebted to them all.

The Part III examinations were run by an external consultancy – Cliftons, a computer training venue.

Other examinations in temporary exam centres were administered by Fellows or other approved supervisors.

4. Exam Candidature

4.1. Candidate Mix

The mix of courses sat by candidates is broadly similar to that in previous years

Candidate Mix by Part III Course

Subject	2019 (1)	2018(2)	2018 (1)	2017 (2)	2017 (1)	2016 (2)
Life Insurance	35%	22%	32%	29%	27%	28%
General Insurance	38%	39%	38%	37%	39%	41%
Investment Management & Finance	6%	5%	6%	5%	8%	11%
Global Retirement Income Systems	2%	4%	5%	5%	5%	4%
Commercial Actuarial Practice	18%	20%	19%	24%	21%	16%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

BoE Members for Semester 2 2019

1. Board of Examiners

The composition of the Board of Examiners for next semester, Semester 2 2019, is as follows:

1.1. Board of Examiners Chair

James Pettifer

1.2. Chief Examiners

Course 2A: Life Insurance	Anthony Brien
Course 2B: Life Insurance	William Zheng
Course 3A: General Insurance	Daniel Lavender
Course 3B: General Insurance	James Fitzpatrick
Course 5A: Investment Management & Finance	Charles Qin & Claymore Marshall
Course 6B: GRIS	Stephen Woods
Course 10: Commercial Actuarial Practice	Bruce Thomson

1.3. Assistant Examiners

Course 2A: Life Insurance	Julian Braganza, Jun Song
Course 2B: Life Insurance	David Ticehurst, Robert Herlinger
Course 3A: General Insurance	Ryan Anderson, Andrew Teh
Course 3B: General Insurance	Chao Qiao, Elaine Pang
Course 5A: Investment Management & Finance	N/A
Course 6B: GRIS	Jim Repanis
Course 10: Commercial Actuarial Practice	Matthew Ralph

2. Examination Dates

The dates for the examinations in Semester 2 2019 are as follows:

Module	Subject	Exam Date
1	SP1 Health & Care (IFoA)	24 September 2019
1	SP9 Enterprise Risk Management (IFoA)	25 September 2019
2	C3A General Insurance	8 October 2019
3	C3B General Insurance	9 October 2019
2	C2A Life Insurance	10 October 2019
3	Life Insurance and Retirement Product Development	10 October 2019
1	C2B Life Insurance	11 October 2019
3	C5A Investment Management & Finance	14 October 2019
2	C6B Global Retirement Income Systems	15 October 2019
4	C10 Commercial Actuarial Practice	16 October 2019

3. Examination Papers

The Board of Examiners have agreed to release this semesters examinations questions and marking guides soon after the results release date to facilitate students being able to refer to them as a learning resources prior to the post exam information sessions.

James Pettifer

Board of Examiners' Report Semester 1 2019

EXAMINERS REPORTS SEMESTER 1 2019

COURSE 2A LIFE INSURANCE

1. Summary

1.1. Course Overview

The aim of the 2A Life Insurance Course is to provide market, legislative and product knowledge, along with the skills and judgment, necessary for an actuary to tackle a range of management related problems in life insurance relating to underwriting and risk management, experience analysis, assumption setting and pricing.

1.2. Assessment

The assessment model is broken down into two parts:

Assignment	10%
Long Answer Question Exam	90%

1.3. Pass Rates

48 candidates enrolled this semester. Of these, 4 withdrew leaving 44 sitting the exam.

It is proposed that 14 candidates be awarded a pass, which implies a pass rate of 31.8%. Table 1 shows the historical pass rates for this subject:

Table 1 – Course Experience

SEMESTER	SAT	PASSED	PASS RATE
Semester 1 2019	**44**	**14**	**32%**
Semester 2 2018	71	18	25%
Semester 1 2018	78	22	28%
Semester 2 2017	62	23	37%
Semester 1 2017	65	13	20%
Semester 2 2016	66	14	21%
Semester 1 2016	82	16	20%
Semester 2 2015	57	18	32%
Semester 1 2015	65	20	31%
Semester 2 2014	56	25	45%
Semester 1 2014	62	16	26%

The 32% pass rate for this exam is a significant improvement from the 25% pass rate for the previous exam (Semester 2 2018) and well above the historical average. This semester is the second last time the course is being offered and to be eligible, candidates had to have sat the course in the past so there are no new students, only repeaters, which may be one of the drivers to the lower enrolment and higher pass rate.

The course was reviewed and minor changes made but most of the examination was based on course material which did not change. The long answer did have a question which dealt with group pricing and marginal pricing which, as in past years, was not well

2. Assessment

2.1. Overall Performance

Candidates continue to perform poorly, often failing to demonstrate sufficient understanding of basic concepts that should have been learnt in the Part 1 subjects. The breadth of topics covered in this paper showed that few candidates were able to show knowledge across all areas supporting the view that the course would be better fitted over a full year and candidates need to devote more time to study if they expect to pass the subject.

The removal of the requirement to participate in the online forum saw its use drop off almost completely and candidates have probably suffered as a result, though not as much as would have been the case if the course had allowed new enrolments rather than being restricted to only repeat candidates.

The assignment did prove to be a good differentiator with it making the difference between pass and fail for a few candidates – either because the failure to submit or to put adequate effort into the assignment prevented the candidate from falling into the pass or borderline criteria, or by maintaining the same standard of performance from assignment to exam, candidates clearly showed they are worthy of a pass. There were several examples of substantial improvements in performance from assignment to exam resulting in candidates passing but the only candidate who did well in the assignment and poorly in the exam fell into borderline assessment and did not pass the course.

2.2. Exam Question by Question Analysis

Question 1

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass	43.5	43.5	72.5%	2	5%
Pass	34.5	34.5	57.5%	11	25%
Slightly Below Standard	31.1	31.1	51.8%	7	16%
Below Standard	21.0	21.0	35.0%	20	45%
Weak	14.0	14.0	23.3%	4	9%
Showed Little Knowledge	1.0	1.0	1.7%	0	0%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	45.0	45.0			
Average Mark	30.2	30.2			
Standard Deviation	7.0	7.0			
Co-efficient of Variation	0.23	0.23			

Question 1 was a unit pricing question. It has been a while since this was examined, having previously been a common topic given historic issues with unit pricing. The question mixed elements of general principles behind unit pricing, error prevention and restitution approach

with technical calculations required to correct three errors. The dates chosen were to coincide with the day of the exam to avoid any uncertainty of days when prices would not be calculated (week days, public holidays etc).

Overall the general standard of responses for this question was poor, particularly in relation to spreadsheet components (parts b and c) which covered 18 out of 30 marks for the question. The theory components (parts a, d, and e) were answered well as these questions were straightforward. The pass rate was 30% with the pass mark being only 57.5% of available marks.

Part a):

The average mark was 1.3 out of 2, with most candidates adequately explaining arbitrage, and fewer candidates discussing equity issues between members. Candidates who lacked understanding of the mechanics of unit pricing stated that the company would need to bear the cost of arbitrage, instead of unitholders.

Part b):

A majority of students did not seem to read the question that required the derivation/recreation of the formulae for the cells shaded in yellow. If students had attempted this, then issues such as buy spread and correct investment return methodology would have been identified, and error 3 would have been corrected. Common errors included not demonstrating how each of the four columns should be calculated (either through formulae or explanation of its derivation), applying the corrections to the wrong date/s or using a future EOD value to recreate a current BOD value.

Part c):

This part was poorly answered, with a majority of students not attempting this question or making very little progress. Weaker attempts did not recognise that the occurrence of an error has subsequent impact on all following days and would also require restitution payments. A common error in the interest rate calculation was ignoring weekends and public holidays.

Part d):
This was well answered with many easy marks available - the average mark of 4.8 out of 7. No one correctly categorised the sample solution risk of 'modelling risk' for the first error, perhaps because it was not listed as an example of a type of risk in the question. While many students listed multiple categories for each risk, none were penalised for this so long as the correct sample solution risk was identified, or the risks were adequately explained. To earn full marks, suggestions need to be specific to the incidents. Repetition of generic points across different incidents did not earn multiple points.

Part e):

The average mark was 1.9 out of 3. Most candidates identified reputational risks and the costs of recovery. Few recognised the legal issues in terms of recovery.

Question 2

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass	47.0	47.0	78.3%	4	9%
Pass	40.0	40.0	66.7%	14	32%
Slightly Below Standard	36.0	36.0	60.0%	13	30%
Below Standard	30.0	30.0	50.0%	10	23%
Weak	25.0	25.0	41.7%	2	5%
Showed Little Knowledge	1.0	1.0	1.7%	1	2%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	52.0	52.0			
Average Mark	38.2	38.2			
Standard Deviation	6.4	6.4			
Co-efficient of Variation	0.17	0.17			

Question 2 examined aspects of individual business. Firstly, the differences between term and trauma insurance and recent developments in how trauma definitions should be determined and revised. Secondly it looks at differences between non-intermediated and advice-based sales. And lastly aspects of product development with regards to simplification and meeting customer needs.

Relative to past papers, this question was relatively straightforward and bookwork. This meant that the average scoring was much higher than we have seen in past attempts and the pass mark set at 20/30 with a pass rate of 41%.

Part a):

This park asked candidates to identify what customer needs were met with Trauma insurance. Answers were generally competent. Most people either did not comment on the interaction between health insurance / Medicare and trauma insurance, or where they did, didn't mention that trauma insurance is not allowed to reimburse medical expenses.

Part b):

This part introduces the FSC Code of Practice requirements with regards to minimum standard definitions and questioned candidates about the differences between standardised and minimum definitions. The average mark was 3.3 out of 5 with some candidates not realising that minimum requirements and standardised definitions are two different approaches. Most candidates made some mention of impacts on innovation, which was an important part of the model answers.

Part c):

This part looked at differences in sales approach and underwriting for direct and advice-

based sales. With an average of 6.3 out of 9 it was generally well answered.

Own medical and family medical history were often mentioned, along with some indication of income / assets. Fewer candidates also mentioned occupation or hazardous pursuits as being important questions not covered by direct insurance.

Part d):

The average mark of 2.5 out of 6 reflects that the question was not sufficiently analyzed by candidates and shows the need to think of a framework rather than just diving into answering the question. In this instance, what does "more affordable" mean? Not just cheaper, but also is it better value for money, per unit cost? What factors play into this?

Part e):

The average mark was 5.5 out of 8: Many marks were on offer (well in excess of the 8 needed to get full marks), and it was framed as a very general question which could be easily answered from bookwork and general business knowledge. Obviously, exam and time pressure played a part where candidates put down hurried answers.

Question 3

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass	31.0	31.0	51.7%	1	2%
Pass	22.0	22.0	36.7%	14	32%
Slightly Below Standard	19.8	19.8	33.0%	4	9%
Below Standard	14.3	14.3	23.8%	15	34%
Weak	12.8	12.8	21.3%	3	7%
Showed Little Knowledge	1.0	1.0	1.7%	7	16%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	32.0	32.0			
Average Mark	18.8	18.8			
Standard Deviation	6.7	6.7			
Co-efficient of Variation	0.35	0.35			

This question related to group insurance pricing and analysis of a superannuation industry fund. The question covers a broad spectrum of topics from data, pricing methodology, analysis/interpretation of results and expenses.

Overall, the candidates performed poorly in this question. There was evidence of many candidates showing little understanding of group insurance pricing and/or possibly having run out of time. Only 15 out of 44 candidates (34%) passed the question despite the passing mark being set modestly at 22 out of possible maximum 60 marks.

Part a):

Asked key pieces of information and data which would be expected to be provided in the RFP and required for pricing. The question was generally answered well by the candidates.

Part b):

This part asked the candidates to describe the appropriateness of using LotsaLife's current (corporate) group pricing methodology of credibility analysis, for the pricing of an industry fund. This question was answered very poorly with only a handful of candidates being able to identify and explain the key differences between corporate vs industry pricing (member awareness, employer relationship, occupation mix, credibility, IBNR, products).

Part c):

Went on to ask the changes required from the current group pricing approach of LotsaLife. Given part c) was a following question from b), the candidates again answered poorly. Very few students were able to list the changes including using BigOne's own experience, standardising for past product changes and adopting an alternative IBNR methodology.

Part d):

This part of the question asked the steps required in standardising the historical premiums by applying a "no-worse off" transition rule for the existing insured members as at the date of premium rate change, as well as possible sense checks which can be performed. Despite the question being a very standard approach in group pricing, this question was answered poorly. The variance in the quality of answers and marks on this part was high and there was some evidence that a few candidates have run out of time.

Part e) & f):

Questioned candidates about possible reasons behind an emerging deterioration TPD loss ratio results and the investigations which can be carried out in confirming/ruling-out the reasons. These parts required candidates to interpret the loss ratios and apply judgement in verifying the results. Very few candidates were able to comment around working with other functions (administration, claims, legal, CMO, underwriting etc), as well as adopting alternative pricing approaches (eg IBNR).

Part g) & h):

Asked candidates to list the main sources of marginal expenses and arguments for and against marginal expense pricing. Despite these questions being more straightforward and generic on expenses, the candidates again performed poorly. Only a small number of candidates were able to identify the various marginal expenses (claims, administration, product/pricing, reporting, client management) and the commercial, operational and risk considerations in the arguments for and against marginal expense pricing.

COURSE 2B LIFE INSURANCE

1. Summary

1.1. Course Overview

The aim of the 2B Life Insurance Course is to provide the knowledge, skills and judgment necessary for an actuary to tackle a range of management related problems in life insurance relating to valuation techniques, capital management, profit analysis, valuation of a company, reporting of results and professionalism.

1.2. Assessment

The assessment model is broken down into two parts:

Assignment	10%
Long Answer Question Exam	90%

1.3. Pass Rates

56 candidates enrolled this semester. Of these, 1 withdrew, leaving 55 candidates sitting the exam.

It is proposed that 20 candidates be awarded a pass, which implies a pass rate of 36%. Table 1 shows the historical pass rates for this subject:

Table 1 – Course Experience

SEMESTER	SAT	PASSED	PASS RATE
Semester 1 2019	**55**	**20**	**36%**
Semester 2 2018	63	18	29%
Semester 1 2018	57	19	33%
Semester 2 2017	49	15	31%
Semester 1 2017	52	18	35%
Semester 2 2016	46	15	33%
Semester 1 2016	50	11	22%
Semester 2 2015	50	17	34%
Semester 1 2015	53	21	40%
Semester 2 2014	51	20	39%
Semester 1 2014	60	22	37%
Semester 2 2013	44	17	39%
Semester 1 2013	43	11	26%

The 36% pass rate for this exam is higher than the 29% pass rate for the previous exam (Semester 2 2018) and slightly higher than the historical average of 33%.

2. Assessment

2.1. Overall Performance

On average, the marks for the Assignment were lower overall than those for the Forum. Overall the distribution of the marks was consistent with the distribution of marks for the Long Answer Questions for the current and previous semesters.

The performance in the Long Answer Questions was broadly consistent with the previous semester overall and continues to be variable. As with past semesters, this component covered a range of topics and contained a mix of:

- Spreadsheet work and written responses.
- Sections requiring simple and complex judgment.
- Components that were prescriptive and others that were open (inviting candidates to raise and discuss points in relation to the topic at hand).

This made the questions good discriminators when assessing the borderline candidates.

Consistent with previous semesters, some candidates performed very well on one or two of the Long Answer Questions but performed poorly (in some cases very poorly) on the other(s). Only a handful of candidates appeared strong across all areas of assessment.

Most candidates appeared to complete the exam. However, some candidates were let down by:

- Devoting too much time to certain parts of the exam, leaving them little ability to demonstrate the required knowledge, understanding and judgment in other parts.
- Not reading and/or answering the question correctly – e.g. discussing the generic manner to apply the formula in LPS 118 for calculation of operational risk charge in part c) of Question 2, rather than specifying how the calculation would actually be performed and the data that would be required.
- Not addressing the circumstances described in the question, and instead giving a generic textbook answer (which may not have relevance).
- Not assessing the reasonableness of the numbers coming out of their calculations – for example in the change in profitability as a result of the recapture in part c) of Question 1.

Many candidates failed to demonstrate an understanding of:

- Effect that simplified lapse assumptions have on the profit volatility and lapse experience profit relative to more detailed assumptions.
- Impacts of changes in reinsurance arrangements on the sensitivity of the profit to variances in lapse and claims experience.
- Reasons for why there may be a negative value of new business, despite profit margins on the new business being positive.

The presentation of reasonable arguments to back up conclusions and apply complex judgment was missing in many cases, with the quality of explanations often weak for such candidates.

2.2. Exam Question by Question Analysis

Question 1

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**64.0**	**64.0**			
Strong Pass	48.0	48.0	75.0%	11	20%
Pass	43.0	43.0	67.2%	15	27%
Slightly Below Standard	38.7	38.7	60.5%	8	15%
Below Standard	32.0	32.0	50.0%	14	26%
Weak	27.0	27.0	42.2%	4	7%
Showed Little Knowledge	1.0	1.0	1.6%	3	5%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	53.5	53.5			
Average Mark	41.1	41.1			
Standard Deviation	7.4	7.4			
Co-efficient of Variation	0.18	0.18			

Question 1 focused on a life insurer looking to recapture a large portion of its business. The underlying focus on the question related to policy liability calculations including comparing the accumulation and projection method and producing cashflow projections.

Candidates were initially asked to explain why a recapture payment was required and to provide reasons for why the projection approach is now appropriate for the determination of policy liabilities. They were then asked to determine the cashflow and policy liability projections before and after the recapture using the spreadsheet provided. The remainder of the question required candidates to identify the impacts of the new reinsurance terms on profit and embedded value, as well as the profit impacts of using a simplified lapse assumption structure.

This question was generally answered reasonably well, with a pass rate of 47%.

Part a) was done reasonably well by candidates, with most candidates identifying at least one valid reason for the recapture payment (e.g. cover loss of future profits for the reinsurer).

For part b i), candidates performed reasonably well. Most students were able to identify when an accumulation basis is appropriate and that under the new reinsurance terms the deferred acquisition costs would be higher. Better students noted that the retail lump sum business was long duration and therefore a projection approach would be more appropriate.

For part b ii), responses were mixed. Many candidates noted that under the projection method, expected profits is released in line with a profit carrier. However, not many noted if the chosen profit carrier were premiums, as opposed to claims, that there is more likely to be greater alignment with the accumulation basis.

For part b iii), responses were mixed, with weaker students providing only brief answers that were lacking in detail and little justification of how the use of a projection basis could bring operational improvements. Stronger students were able to identify valid characteristics of using a projection method and then use this in justifying their points.

For part c), most candidates did reasonably well with the projection of premiums, claims, expenses, reinsurance and policy liability. Most candidates made several errors, with better candidates only making one or two. The most common errors across part c) were:

- Not allowing for benefit indexation or premium increases
- Calculating expenses in line with the sum insured or premiums in-force, rather than the number of policies in-force
- Using wrong profit carrier to calculate the profit margin % and PVPM
- Where their projection indicated that the recapture would cause a large loss and pushing the book into loss recognition, not specifically highlighting that this is likely to be indicative of an error.

Part d i) had mixed responses. Consequential marks were given, in cases where the candidates had made errors in the projection. There were several candidates that did not compare the claims and lapse sensitivities before and after the new reinsurance terms, losing marks in the process. It was disappointing that some candidates did not recognise that greater claims exposure from the new reinsurance terms would lead to higher profit volatility.

Part d ii) had mixed responses. Some candidates failed to provide valid reasoning and focused on the need for capital, without outlining the benefits that would result e.g. further diversification of the risk by expanding other life insurance products. Part d) iii) had mixed responses. Most students were able to identify why the adopted lapse rate was not reflective of the underlying lapse experience. Very few candidates were able to obtain full marks in noting that the overall profit volatility would not be impacted or explaining how it impacts the lapse experience profit.

Question 2

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**54.0**	**54.0**			
Strong Pass	33.0	33.0	61.1%	6	11%
Pass	29.0	29.0	53.7%	9	16%
Slightly Below Standard	26.1	26.1	48.3%	5	9%
Below Standard	20.0	20.0	37.0%	16	29%
Weak	14.0	14.0	25.9%	14	25%
Showed Little Knowledge	1.0	1.0	1.9%	5	9%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	37.0	37.0			
Average Mark	23.3	23.3			
Standard Deviation	6.9	6.9			
Co-efficient of Variation	0.30	0.30			

Question 2 focused on a large internationally owned Australian life company writing lump sum and investment linked superannuation business. The company is planning to launch a new product due to declining sales of its YRT business.

Candidates were initially requested to identify whether the new product could be placed in the same RPG as the existing risk business, and also compare between the two products the manner in which claim reserves are calculated and the drivers of the APL and IRC. Candidates were then tested on their understanding of capital and risk management for the new product, with candidates being asked to provide mitigating actions against the risk of adverse experience. The remainder of the question then focused on how policy liability and capital results would be produced for the year-end valuation where a valuation model is not available.

This question was answered poorly by many candidates, with a pass rate of 27%.

Part a) was answered well, with most candidates being able to outline some valid points. Most candidates were able to identify the criteria for putting products within the same RPG, however some candidates failed to recognise that the premium structures of the two products were significantly different. Candidates had mixed performance in identifying the drivers of the APL and IRC, with only some candidates drawing upon the key information in the question that the premium rates are guaranteed (therefore cannot reprice) and the premium term being shorter than the product term.

Part b) was poorly answered. Overall many candidates appeared to have a lack of understanding in the principles of asset-liability matching. A large number of candidates also did not consider the movement over the "life of the TermLife product" as requested in the question. In part ii), many students noted that a worsening of experience which led to assumption changes would reduce profit margins and / or potentially lead to loss recognition. The responses for the suggested actions were mixed, and some candidates failed to link their response to the question and omitting any mention of the guaranteed premium rates.

Part c i) and ii) had mixed responses. Many students correctly identified that an accumulation approach could be used in the absence of a valuation model to calculate the policy liability. For calculating the PCA without a valuation model, a number of students simply outlined the stresses that would need to be applied quoting from the various LPSs without providing detail on the data required or approach to actually calculate these various items such as the IRC and ORC.

Part c) iii) had mixed responses. The majority of candidates recognised that there would need to be an adjustment to the results to allow for the difference caused by the approximate valuation method, however some candidates failed to outline considerations for the difference, such as auditor engagement or materiality, despite the question specifically asking for it.

Question 3

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**62.0**	**62.0**			
Strong Pass	44.0	44.0	71.0%	4	7%
Pass	37.0	37.0	59.7%	17	31%
Slightly Below Standard	33.3	33.3	53.7%	10	18%
Below Standard	28.0	28.0	45.2%	12	22%
Weak	20.0	20.0	32.3%	9	16%
Showed Little Knowledge	1.0	1.0	1.6%	3	5%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	49.0	49.0			
Average Mark	34.0	34.0			
Standard Deviation	8.0	8.0			
Co-efficient of Variation	0.24	0.24			

Question 3 focused on an Australian life insurance subsidiary of an overseas bank that only sells Yearly Renewable Term products.

A CFO with no life insurance background has recently joined the company. Candidates were supplied an excerpt of the analysis of profit and analysis of change of embedded value for the company over a twelve month period.

Candidates were asked to prepare responses to the CFO a number of questions relating to differences between the change in embedded value and reported profits, outlining the components and changes to EV over time under a number of potential scenarios. In the final part of the question, candidates were asked on adjustments required to an EV figure under a different owner for comparative purposes and the implications of the value of one year's new business sold being negative.

This question was generally answered reasonably well, with a pass rate of 38%.

Part a) was answered well by most candidates. However, it was still disappointing to see that some candidates were not able to provide valid responses on this question, which was largely bookwork based.

Part b) had mixed responses. Most candidates were able to correctly identify the two components of the VIF. The section of this question relating to the change in the components of VIF over time was more poorly answered by candidates. Stronger candidates were able to demonstrate their understanding by stepping through the effects that lapses (or other factor) would have on the business and then link this to the effect on the VIF component. A number of candidates did not consider other factors that could affect the VIF of EVLIFE over time, such as the rapid growth in the YRT business.

Part c) i) was poorly done. Most candidates noted that the run-off pattern of the target surplus would be different under the new target surplus projection, however some candidates did not proceed to outline the impact on the Embedded Value indicating that they did not read the question properly.

Part c) ii) was very well done, with many candidates providing reasonable drivers of the EV in each of the scenarios and correctly stating the resulting impact on EV.

Part d) i) was well done, with most candidates correctly listing valid adjustments that would be required to be made to the EV. Stronger students were able to justify their adjustments by highlighting specific items referenced in the question (e.g. adverse media coverage).

Part d ii) was poorly answered. Many students failed to outline the implications of negative value of new business or provide suggestion actions that ALIFE could take in light of this result.

LIFE INSURANCE AND RETIREMENT VALAUTION

1. Summary

1.1. Course Overview

This subject aims to provide students with an understanding of how actuarial judgement is required when considering the purpose of a valuation. Implications of different methods, models and assumptions are discussed through considering liability valuations (life insurance and retirement), risk-based capital requirements and appraisal values.

1.2. Assessment

The assessment model is broken down into two parts:

Assignment	20%
Long Answer Question Exam	80%

1.3. Pass Rates

70 candidates enrolled this semester. Of these, 2 did not present for the exam, leaving 68 candidates sitting the exam. Of those 68 candidates, 5 did not submit an assignment and the total marks obtained by these candidates were the lowest five marks out of the cohort.

It is proposed that 19 candidates be awarded a pass, which implies a pass rate of 28% when counting all candidates who attended the exam. The pass rate is 30% when candidates who did not submit an assignment are excluded.

SEMESTER	SAT	PASSED	PASS RATE
Semester 1 2019	68	19	28%

2. Assessment

2.1. Exam Question by Question Analysis

Question 1

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	60.0	60.0			
Strong Pass	44.5	44.5	74.2%	1	1%
Pass	36.0	36.0	60.0%	23	34%
Slightly Below Standard	32.4	32.4	54.0%	6	9%
Below Standard	28.0	28.0	46.7%	12	18%
Weak	18.0	18.0	30.0%	21	31%
Showed Little Knowledge	7.0	7.0	11.7%	4	6%
Did Not Attempt	0.0	0.0	0.0%	1	1%
Maximum Mark	46.0	46.0			
Average Mark	30.3	30.3			
Standard Deviation	8.6	8.6			
Co-efficient of Variation	0.28	0.28			

Candidates performed relatively well on this question, with a pass rate of 34%.

This question was partly a modelling question on valuing a variation of a level premium term insurance contract and partly a test to see if students had a grasp of different valuation methods.

Parts a) and b):

Candidates were asked to determine why the contract design was useful to consumers and why the company would force a limit on the premium payment term.

This was well answered by most candidates.

Parts c) and d):
Candidates were asked to calculate a best estimate liability in line with the specifics in the question. Basic calculation errors were common. Most candidates scored some marks.

Parts e) and f):
These parts tested an understanding of how valuations affected profits. Most candidates had a grasp of the theory, but poor examination technique led to many students not gaining as many marks as they should have.

It is important to describe what you are doing. This will help the marker understand you attempt and is likely to award higher marks.

Part g):

This was a test of judgement and was too difficult for most candidates. There were some simple marks available for stating obvious points. The questions are not designed to trick students but may test if you really understand a concept. A best estimate accounts for likely future experience and the question was framed for the student to note that the change in the environment would likely affect a best estimate view.

Question 2

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**40.0**	**40.0**			
Strong Pass	28.0	28.0	70.0%	2	3%
Pass	20.0	20.0	50.0%	12	18%
Slightly Below Standard	18.0	18.0	45.0%	8	12%
Below Standard	12.0	12.0	30.0%	26	38%
Weak	8.0	8.0	20.0%	9	13%
Showed Little Knowledge	1.5	1.5	3.8%	7	10%
Did Not Attempt	0.0	0.0	0.0%	4	6%
Maximum Mark	32.5	32.5			
Average Mark	14.3	14.3			
Standard Deviation	7.0	7.0			
Co-efficient of Variation	0.49	0.49			

Question 2 considered the implications on an entity that enters a newly created retirement market in a fictitious country. The theme of the question explores how a company may reconsider the risks it is willing to accept as it enters a new market with products that is has no past experience of selling.

Students were required to apply a generic risk management framework, contained in the textbook, to a specific situation. Too many students wrote in general terms and this generates relatively few marks, especially in an open-book exam. Some of the tutorials concentrated on the need to answer the specific scenario in a question. Many easy marks were not awarded as students appear to be unprepared.

There were four parts to the question, but candidates were asked to draft report. Many candidates did not write in report format and 'lost' out on 2 bonus marks.

Part (a) explored changes to the risk management framework. Since this is an open-book exam, most candidates could extract the relevant section from the textbook, but marks were awarded by explaining how the specific situation in the question would necessitate a change in the company's RMF. A few candidates obtained full marks.

Part (b) considered how the RMF could be used to assess new material risks. Candidates who identified the new risks in the new products scored well. Most candidates struggled to identify a few risks. The question directed to the students to focus on identification.

Part (c) focused on how the RMF can assist with delivery of this major project. Candidates struggled to think widely enough to generate marks.

Part (d) related to capital implications of the new products. Many candidates struggled with this question.

Question 3

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass	31.0	31.0	51.7%	10	15%
Pass	24.0	24.0	40.0%	8	12%
Slightly Below Standard	21.6	21.6	36.0%	4	6%
Below Standard	17.0	17.0	28.3%	20	29%
Weak	11.0	11.0	18.3%	12	18%
Showed Little Knowledge	2.0	2.0	3.3%	13	19%
Did Not Attempt	0.0	0.0	0.0%	1	1%
Maximum Mark	39.0	39.0			
Average Mark	18.9	18.9			
Standard Deviation	8.9	8.9			
Co-efficient of Variation	0.47	0.47			

Part (a) asked for a simple statement of the components of an appraisal value and was generally answered well.

Part (b) required students to model cash flows and profits. The question was completed well but there were some issues. Some candidates calculated MoS type profit and others made some basic modelling errors. It would help if students provided a brief outline of how they were trying to solve the problem.

Part (c) required students to calculate an appraisal value. There were a wide range of answers. It was clear that students were trying to apply a standard formula. Most students did not read the question, specifically around the calculation of solvency margin. There were a few difficulties: In summary:

- The solvency margin was poorly done. Most candidates overcomplicated the question, with most candidates opting for a MoS BEL (stressed) type of calculation.
- Some students did not calculate distributable profits.
- Almost all students did not recognise to deduct UPR for the adjusted net worth.

Part (d) asked candidates to think about whether the AV assumptions were reasonable. The question was answered poorly, with a lack of concentration on the AV components (and their values/underlying assumptions). Students did not interpret the question correctly.

Parts (e) and (f) required students to show that they understood how an AV would change in specified changed circumstances. There were mixed replies, often lacking clarity in answers.

Part (g) and (h) were barely answered by nearly all students. Some candidates scored some marks by mocking up a memo and identify the lack of experience would cause difficulty in changing assumptions.

COURSE 3A GENERAL INSURANCE

1. Summary

1.1. Course Overview

The aim of the 3A General Insurance Course is to provide the knowledge, skills and judgment necessary for an actuary to tackle a range of problems in general insurance relating to products, accident compensation schemes, valuation techniques, accounting and management information.

1.2. Assessment

The assessment model is broken down into two parts:

Assignment	10%
Long Answer Question Exam	90%

1.3. Pass Rates

139 candidates enrolled this semester. Of these, 5 withdrew and 2 did not present, leaving 132 sitting the exam.

It is proposed that 10 candidates be awarded a pass, which implies a pass rate of 8%. Table 1 shows the historical pass rates for this subject:

Table 1 – Course Experience

SEMESTER	SAT	PASSED	PASS RATE
Semester 1 2019	**132**	**10**	**8%**
Semester 2 2018	104	23	22%
Semester 1 2018	108	17	16%
Semester 2 2017	91	24	26%
Semester 1 2017	92	23	25%
Semester 2 2016	91	21	23%
Semester 1 2016	106	35	33%
Semester 2 2015	82	23	28%
Semester 1 2015	90	28	31%
Semester 2 2014	76	15	20%
Semester 1 2014	66	17	26%

The pass rate of 8% is the lowest pass rate for this subject; which has declined over recent semesters.

While the result is disappointing, the exam team spent a considerable amount of time reviewing candidates to justify that such a low rate was warranted. Key drivers of the low pass rate include:-

- Candidates generally only attempting the bookwork components of the exam with few making successful attempts at the components that require a deeper understanding, critical thinking or application of judgement;

- Candidates struggling with the application of the Incurred Chain Ladder method, an actuarial reserving technique that is fundamental to this course;
- Candidates neglecting to justify their assumptions; and
- Poor time management.

This was the first semester that the discussion forum did not form part of the overall assessment. Disappointingly, the forum had extremely low utilisation with a total of only 4 posts during the semester, noting that one of these was in relation to the timing of a tutorial. This is a significant reduction from the utilisation in 2018 with 894 posts in semester 1 and 825 posts in semester 2; even despite the 25% increase in the number of enrolled candidates.

The pass rate for 3A General Insurance is generally lower than that of other Part III subjects, primarily driven by the large number of enrolled students that attempt this subject for the first time, and that this subject tends to be one of the first Part III subjects attempted by many candidates.

Passing candidates seemed to have a good course knowledge and the ability to use that knowledge in a way that was relevant to the questions.

2. Assessment

2.1. Overall Performance

The assignment was well attempted with candidates generally performing well on the bookwork components but struggling with the more complex parts such as in the liability valuation in Question 3. Overall, candidates performed well on the assignment, however this was generally not supported by their performance in the exam. Not surprisingly, all candidates that passed the exam also passed the assignment.

Consistent with previous semesters, some candidates performed very well on one or two of the Long Answer Questions but performed poorly (in some cases very poorly) on the others – poor exam technique appears to be the main reason for this. Only a handful of candidates appeared strong across all areas of assessment.

Like other exams in recent semesters this exam was not considered to be a lengthy exam. Time management continues to be an issue for students taking this subject with many not allocating their time appropriately between each of the questions. Often, candidates devote too much time to certain parts of the exam, particularly questions involving spreadsheets, leaving them little ability to demonstrate the required knowledge and understanding of a passing candidate in other parts. In many cases, responses in one or two questions will be quite verbose, unstructured and repeat the same point multiple times while in other questions the answers will be too brief and not reach the level of detail required. Candidates should consider structuring their responses to provide clear and detailed answers for each question.

Question 2 proved to be the most challenging question in this exam that resulted in being a good discriminator when assessing borderline candidates. Many candidates did not perform well in this question for either lack of attempt, unnecessary analysis, or demonstrating that they do not understand how to apply the Incurred Cost Development model to calculate an outstanding claims provision.

The application of judgement continues to be an area that is not strong for candidates undertaking this subject, with candidates often not successfully attempting these questions. For example, the average marks awarded for Question 1cii) and Question 2cii) was less than 10% and 5% respectively. In order to demonstrate judgment candidates need to at least attempt these questions.

It is apparent that candidates attempting this course generally do not have strong critical thinking and practical skills to get through. Candidates attempting this course should invest significantly more in:-

- improving time management, comprehension and writing skills, in particular focussing on answering the questions being asked;
- critical self-assessment to learn from their mistakes in their practice attempts; and
- familiarising themselves with different general insurance products, situations, functions, and stakeholder perspectives.

2.1. Exam Question by Question Analysis

Question 1

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass (A)	36.0	36.0	60.0%	2	2%
Pass (B)	29.0	29.0	48.3%	27	20%
Slightly Below Standard (C)	26.1	26.1	43.5%	17	13%
Below Standard (D)	20.0	20.0	33.3%	47	36%
Weak (E)	12.0	12.0	20.0%	29	22%
Showed Little Knowledge (F)	1.0	1.0	1.7%	8	6%
Did Not Attempt (X)	0.0	0.0	0.0%	2	2%
Maximum Mark	37.3	37.3			
Average Mark	22.9	22.9			
Standard Deviation	7.0	7.0			
Co-efficient of Variation	0.31	0.31			

2.2.

Question 1 examined the differences between a reinsurer and a direct insurer's portfolios and the different reserving techniques that are often applied. The question comprised of three parts. Better candidates were able to demonstrate an understanding of theory and apply this to a portfolio of reinsurance risks. The pass rate for this question was 22.0%.

Part a)

- Part ai) examined whether candidates understood the differences between the reporting delays (incident to lodgement) of a direct insurer and a reinsurer for both proportional and non-proportional covers. This was well answered with an average mark of 2.9/4.
- Part aii) required candidates to provide four reasons for the observed reporting delays for a long-tail non-proportional reinsurance portfolio. The majority of candidates identified that some claims can take a long time to breach the reinsurance retention (i.e. latent claims), however few candidates were able to go beyond the claim characteristics and consider other differences such as limits, contract arrangements and differences in claims management practices across the direct insurers. The average mark was 2.7/8.
- Part aiii) required candidates to provide four reasons for why it is often more

challenging to conduct liability valuations for non-proportional reinsurance portfolios than for the underlying direct insurance portfolios. Most candidates identified the differences in the observed claims distributions however many did not go beyond this, despite being advised to consider the reliance of information provided by the direct insurers. The average mark was 1.7/4.

- Part aiv) asked candidates to discuss three circumstances where the overall APRA risk margin loading (%) for a reinsurer may be lower than that of the underlying direct insurers. This was well answered with most candidates identifying volatility and diversification as the main differences but only the better candidates could identify three circumstances. The average mark was 3.2/6.

Part b)

- Part bi) asked candidates to explain why the reinsurer had partitioned its portfolio into five different exposure groups and to explain the differences between the various groups. This part was well answered with many candidates scoring full marks. The average mark was 2.7/4.
- Part bii) required candidates to provide three reasons for why it would not be advisable for the reinsurer to only use the Paid Chain Ladder model for its short-tail non-proportional valuation class. Many candidates identified the volatility of claims experience and some noted that claims experience is unlikely to be stable as their reasons but only the better candidates noted that the Paid Chain Ladder model does not incorporate other useful information such as case estimates, open claims, premium volumes etc. It was clear that candidates generally do not have a strong understanding of the Paid Chain Ladder model. The average mark was 2.7/6.
- Part biii) required candidates to provide two reasons to explain why reinsurers may use the Bornhuetter-Ferguson model in their outstanding claims liability valuations. Most candidates noted that this model is useful when there is not a statistically reliably body of claims data but few explained that the model allowed for other useful information such as loss ratios and premium volumes. The average mark was 1.7/4.
- Part biv) asked candidates why a reinsurer may not apply discounting for its facultative portfolio. This was poorly answered with many candidates indicating that it is not allowed as it is a requirement of professional standards. It is clear that candidates do not fully understand the rationale behind the relevant professional standards. The average mark was 0.4/2.

Part c)

- Part ci) required that candidates review two liability valuations that analysts had produced covering a Bornhuetter-Ferguson model on claim payments and a Bornhuetter-Ferguson model on incurred costs. This question was answered poorly. The better candidates were able to assess the assumptions made by the analysts, suggest any changes, and explain the impact that the changes would have on the result. Most candidates provided verbose answers that provided a lot of irrelevant observations without answering the question being asked. Many candidates did not recognise how the development factors affect the results of the Bornhuetter-Ferguson model and while some noted the negative development implied by the incurred Bornhuetter-Ferguson model, most did not address the issue further. The average mark was 3.9/16.
- Part cii) allowed candidate to display judgement to respond to a Board member regarding whether the increase to the average deductible a year ago was justified. This question was poorly attempted with the majority of candidates unable to score any marks. The average mark was 0.5/6.

Question 2

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass (A)	30.0	30.0	50.0%	3	2%
Pass (B)	26.0	26.0	43.3%	3	2%
Slightly Below Standard (C)	23.4	23.4	39.0%	5	4%
Below Standard (D)	15.0	15.0	25.0%	56	42%
Weak (E)	10.0	10.0	16.7%	32	24%
Showed Little Knowledge (F)	1.0	1.0	1.7%	33	25%
Did Not Attempt (X)	0.0	0.0	0.0%	0	0%
Maximum Mark	35.5	35.5			
Average Mark	14.9	14.9			
Standard Deviation	6.3	6.3			
Co-efficient of Variation	0.43	0.43			

Question 2 required candidates to conduct a liability valuation for a relatively small mono-line insurer using the Incurred Cost Development method (ICD). Candidates were advised that premium volumes have been stable and there has been a process change to finalise claims. The question comprised of five parts. Overall, performance in this question was extremely poor with many components not attempted. It is disappointing that many candidates do not have a reasonable understanding of the ICD method. The pass rate for this question was 4.5%.

Part a)

- This part required candidates to prepare a cumulative gross payments triangle in yearly cohorts ending 30 June based on transactional data to 30 April 2019. Most candidates were able to perform this successfully however a common mistake was to conduct this on a calendar year basis. The average mark was 4.9/6.

Part b)

- This part required candidates to make four unique observations regarding the claims experience in the 2018/19 financial year and to comment on the adjustment(s) they would make for each in the ICD model. Most candidates were able to identify one or two observations but the majority did not explain how the observation would impact the ICD model. The average mark was 1.9/8.

Part c)

- This part required candidates to make adjustments to payments and case estimates to allow for claims experience between 30 April 2019 and 30 June 2019 and to document all adjustments made. Despite being relatively straightforward, few candidates were able to apply the right level of judgement, with many applying the same adjustment across all accident years, applying the same adjustment to both payments and case estimates or some other inappropriate adjustments such as replacing current year payments with the average of recent years. Few candidates made allowance for IBNR and many allowed for future development for accident years that were already closed, often contradicting their own observations from part b). The average mark was 2.3/10.

Part d)

- This part required candidates to apply the ICD model to calculate the net outstanding claims provision. Candidates performed poorly in this question with only a handful of candidates suggesting a provision within an acceptable range. Common mistakes were to automatically apply the weighted average chain ladder factors without considering how these would impact the result following the occurrence of a large claim, ignoring the process change to finalise claims sooner, and developing accident years that had no claims open. Other mistakes included discounting projected incurred cost movements rather than projected payments, applying an arbitrary mean term rather than determining an appropriate payment pattern, applying payment patterns that do not sum to 100%, applying an incorrect discount rate, applying the reinsurance retentions incorrectly, and last but not least, neglecting to justify their assumptions. Overall, candidates displayed poor judgement, particularly with the vast majority of candidates calculating a provision that was at least double the opening provision; this is despite stable premium volumes and the process change to finalise claims. The average mark was 4.4/16.

Part e)

- Part ei) required candidates to fill in the missing entries to a table to assist in their discussion to a Board member. This question was poorly attempted. A common mistake was to exclude the adjustments from part b) despite the table being a nonsensical comparison as a result. It was surprising that most candidates did not know how to calculate the net claims expense, with some thinking this was the same as claims handling expenses. The average mark was 0.8/6.
- Part eii) required candidates to provide advice to a Board member regarding their observations and whether they should be concerned about the performance during the year. This question was only attempted by a few candidates, and for those, the responses were generally too brief and did not provide a sufficient level of judgement or mention to the Board member whether or not they should be concerned. The average mark was 0.6/14.

Question 3

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass (A)	39.0	39.0	65.0%	3	2%
Pass (B)	31.0	31.0	51.7%	25	19%
Slightly Below Standard (C)	27.9	27.9	46.5%	19	14%
Below Standard (D)	20.0	20.0	33.3%	46	35%
Weak (E)	9.8	9.8	16.3%	31	23%
Showed Little Knowledge (F)	1.0	1.0	1.7%	7	5%
Did Not Attempt (X)	0.0	0.0	0.0%	1	1%
Maximum Mark	40.0	40.0			
Average Mark	24.0	24.0			
Standard Deviation	8.4	8.4			
Co-efficient of Variation	0.35	0.35			

Question 3 required candidates to place themselves in the shoes of an external actuarial consultant to advise an insurer on their proposed key performance indicators (KPI's) for the claims team, suitable metrics to monitoring their portfolios and for advice around the claims development table. The question comprised of three parts. Better candidates were able to demonstrate an understanding of theory and apply this to a portfolio of reinsurance risks. The pass rate for this question was 21.2%.

Part a)

- This part required candidates to provide two justifications as to the inappropriateness of a set of KPIs used by an insurer's claims team and an adverse impact on the company. While most candidates were able to identify a first justification, only the stronger candidates were able to identify a second justification, distinct from the first. The average mark was 8.6/20.

Part b)

- This part required candidates to apply actuarial judgement to recommend one of two metrics for management to adopt for the purpose of portfolio monitoring. The choice of metric and justification were equally important, with the better candidates providing stronger explanations. The question required candidates to explain why one metric is more appropriate, but also why the other metric is less appropriate. Only the better candidates were able to cover both metrics appropriately. The average mark was 3.9/10.

Part c)

- This part required candidates to respond to several queries from management about the claims development table in the company's accounting disclosures. Candidates did not demonstrate a good level of knowledge with many unable to satisfactorily explain the difference between the net claims development table provided in the question and the Incurred Cost Development method. Despite this, candidates performed reasonably well when asked to identify and provide potential drivers of trends shown in this claims development table. In the latter part of the question candidates were required to comment on whether a reduction in the provision means that the year was profitable. This was well answered with many candidates identifying that more information is required before making that conclusion. The average mark was 11.5/30.

COURSE 3B GENERAL INSURANCE

1. Summary

1.1. Course Overview

The aim of the 3B General Insurance Course is to provide the knowledge, skills and judgment necessary for an actuary to tackle a range of management related problems in general insurance relating to the pricing of all general insurance products, as well as capital management and financial condition reporting.

1.2. Assessment

The assessment model is broken down into two parts:

Assignment	10%
Long Answer Question Exam	90%

1.3. Pass Rates

64 candidates enrolled this semester. Of these, 3 withdrew and 1 did not present, leaving 60 sitting the exam.

It is proposed that 14 candidates be awarded a pass, which implies a pass rate of 23%. Table 1 shows the historical pass rates for this subject:

Table 1 – Course Experience

SEMESTER	SAT	PASSED	PASS RATE
Semester 1 2019	**60**	**14**	**23%**
Semester 2 2018	60	22	37%
Semester 1 2018	56	17	30%
Semester 2 2017	53	21	40%
Semester 1 2017	73	33	45%
Semester 2 2016	75	27	36%
Semester 1 2016	55	17	31%
Semester 2 2015	54	20	37%
Semester 1 2015	54	20	37%
Semester 2 2014	63	23	37%
Semester 1 2014	61	16	26%

The 23% pass rate for this exam is lower than the 37% pass rate for the previous exam (Semester 2 2018) and also lower than the historical average. Candidates seemed to have good course knowledge but not the ability to use that knowledge in a way that is relevant to the question.

The exam was considered of an equivalent standard to recent exams. It is my opinion that we have seen a weaker standard of responses in this semester. I am unsure why this would occur.

2. Assessment

2.1. Overall Performance

Overall the exam performance quality was below what we have seen in recent years. The

inclusion of an assignment does not prima facie seem to have lifted standards for the exam. Candidates, I understand spent a lot less time utilising the online forums now that participation no longer contributes to grades and this may have been a factor in this result.

The assignment appeared to have had candidates put a lot of effort in demonstrating the skills requested. With hindsight this appears to have been a significant focus with one candidate preparing 67 pages and many lengthy submissions. The majority not realising that in synthesising thoughts in a concise form is more likely to be able to assist in the exam, A challenge for our process is to make sure these tasks are a learning tool that is relevant to the change in mindset needed from traditional education. My observation is that we may have inadvertently encouraged candidates back to learning by memory and repetition rather than building judgement skills. This may have been compounded by candidates over investing time on the assignment than a broader set of activities.

2.2. Exam Question by Question Analysis

The commentary below reflects the feedback from the exam markers on each question and their observations with minor adjustment by the review team.

Table 9 – Question 1

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**62.0**	**55.8**			
Strong Pass	40.0	36.0	64.5%	2	3%
Pass	31.0	27.9	50.0%	22	37%
Slightly Below Standard	27.9	25.1	45.0%	9	15%
Below Standard	24.0	21.6	38.7%	13	22%
Weak	16.0	14.4	25.8%	11	18%
Showed Little Knowledge	1.0	0.9	1.6%	3	5%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	42.5	38.3			
Average Mark	28.5	25.7			
Standard Deviation	7.4	6.7			
Co-efficient of Variation	0.26	0.26			

Candidates performed reasonably well on this question, with a pass rate of 40%.

The question was on the future introduction of female drivers with no driving experience and the range of impacts it would have on an existing motor insurance product covering drivers for at fault property, injury & other liabilities and their vehicle for accidental property damage. There was focus around impacts on rating factors and different rating approaches.

Most candidates attempted all parts of the question. Answers were mixed, but it became clear which candidates understood and thought through the implications of introducing a new cohort of female drivers with no driving experience.

Weaker candidates provided overly generic or applied answers that would suit an established stable portfolio of female drivers, rather than a portfolio of female drivers with no driving experience.

(a) 4 marks: Rating factor interactions

- This question was not answered well. Candidates did not read the question carefully and focused on explaining the expected interaction between rating factors rather than whether expected interactions vary.
- All but a few candidates chose to perform the relatively simple analysis of

comparing relativities by rating factor.
- Of the candidates that did suggest areas of investigation, the suggestions were generic and not linked to interaction between rating factors.

(b) 2 marks: Rating factor
- Generally, well answered as most candidates understood that new cohort of female drivers would all fall into the same bucket (0 years) for the 'years since obtaining licence' rating factor and the implication that the 'year since obtaining licence' rating factor would have low predictive power for the new cohort of female drivers.
- Better answers identified the lack of data for male drivers over 30 with less than 2 years since obtaining licence.

(c) 8 marks: Different rating approaches
- Generally, well answered as most candidates were able to provide reasons for and against the different rating approaches.
- Most candidates were able to identify considerations for deciding between the different approaches. Better answers explained why the considerations were relevant to the specific circumstances of the question.

(d) 4 marks: Other considerations
- Generally, well answered with most candidates expanding on the considerations identified for question 1 c).
- Most candidates did not focus on additional pricing considerations possibly due to not reading the question carefully and assuming that considerations other than pricing needed to be addressed.

(e) 3 marks: Government premium rate
- Candidates generally performed well on this question with many able to explain reasons for and against the government proposal to commission a study on expected claims costs for female drivers.
- Full marks were only awarded to candidates that made a recommendation to either support or not support the government proposal.

(f) 4 marks: Projected GWP
- Almost all candidates identified that competition would place downward pressure on MIC's pricing for the new cohort of female drivers.
- Most candidates also identified that not all eligible females would apply for a driving licence and require insurance.
- Very few candidates considered the impact on the existing cohort of male drivers.

(g) 6 marks: Financial Condition Report
- Almost all candidates identified the relevant sections of the FCR that would require commentary following the change in the law to allow females to drive.
- Better answers acknowledged that it was too early to draw conclusions based on two months of data and focused on providing recommendations to mitigate the heightened uncertainty associated with the introduction of a new cohort with no historical data (i.e. monitoring, risk transfer).

Table 10 – Question 2

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**70.0**	**63.0**			
Strong Pass	46.0	41.4	65.7%	2	3%
Pass	40.0	36.0	57.1%	6	10%
Slightly Below Standard	36.0	32.4	51.4%	17	28%
Below Standard	24.0	21.6	34.3%	30	50%
Weak	16.0	14.4	22.9%	5	8%
Showed Little Knowledge	1.0	0.9	1.4%	0	0%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	51.0	45.9			
Average Mark	33.8	30.4			
Standard Deviation	6.1	5.5			
Co-efficient of Variation	0.18	0.18			

This question aimed to test candidates understanding and fitness to practice using a large exclusively personal lines insurer contemplating its first product liability insurance policy for a newly prototyped wearable device, similar to 'Fitbit'.

Several parts of the question could have been clearer particularly on the reference to a 1% line. In several instances the candidates misinterpreted clear aspects, which raised concern about fairly basic comprehension levels.

Those parts seeking comments on regulatory capital movements of inwards reinsurance product liability were most open to opposing views and scored noticeably the worst i.e. h) and i) scoring 40.7% and 31.0% respectively.

Other than the trivial PCA component addition in part f), parts a) (concerns about writing and pricing the new product liability cover) and c) (main differences in sound premium rating between personal lines and new product liability risks) were the most straightforward, on average scoring well above the pass mark. All other parts were below it, except part g).

The strong candidates were able to go past the bookwork points to show the judgement and commercial awareness required to demonstrate fitness to practice. Exam technique seems to be a key challenge for some candidates with many answers being too generic i.e. quoting the textbook without applying to PLGI's situation, without much description/discussion, or answering the wrong question. The use of dot point lists when the question requested discussion, were awarded only partial marks.

Many candidates confused product liability cover (consequential harm/damage following use of the product) with product warranty cover or manufacturing faults (e.g. cost of product repair/replacement)

a)

Well answered. Most got the main points on risk assessment and cover required for the newly developed wearable device. However, few saw high level concerns from PLGI's perspective e.g. whether writing this product fits its strategic plans for expansion. Only a few mentioned that the new product may not be insurable.

b)

This part should have been much better answered. Given its 6 marks, many candidates were far too brief, supplying only a few dot points in total. Often the information requested was not practical to expect in the question's context. Also, there was often confusion about what information would come from the potential client versus from Fred, our underwriter. Several candidates also thought Fred was the client rather than PLGI staff.

c)

Another well answered part, if a rather elementary one. Most candidates correctly highlighted the impact of the lack of claims history and higher level of uncertainty implicit in product liability vs personal lines. Long vs short tail and low frequency/high average claims size (ACS) vs high frequency/low ACS. Those that scored fewer marks, either failed to appreciate the main underlying differences or discussed only a single difference at length.

d)

This part was answered at a slightly below standard level. The appropriateness of using experience rating methods in this instance, were generally very well discussed. Given the wearable device was a new product without a track record and the entrepreneur's financial strength was unknown, a critical risk was whether they would be able to pay burner top up premiums, if and when required. Good reasoning either way to use/not use burners, were awarded marks. The setting of the burner minimum, maximum and adjustment premiums was patchy. This implied the while the concept of a burner was well understood, that understanding was only one layer deep. Only a few mentioned burning the incurred cost by eg 100/75.

e)

This part asked candidates to provide support for why the expected and actual loss ratios could be very low without the proposed cover being a 'junk policy'. This part was answered fairly well by most. However, many did not separate their answers for the expected vs actual loss ratio, which was disappointing as the reasons for each were quite different. Many said the low LR was due to only one year's experience. This was not relevant for the expected LR. Also, high acquisition costs were given but in practice these would be amortised over several years, so not a relevant reason.

f)

The correct answer to this part was actually given in the table of PCA components. All candidates needed to do was read the descriptions and do the arithmetic. To obtain the full 1.0 mark, workings had to be shown. Most scored at least 0.5 for this part but several actually managed to neither show workings nor get the $90m answer correct.

g)

This part asked for two examples of product liability claims which would result in losses under the $100m XOL Inwards Re policy. Most gave reasonable examples here indicating the types of consequential events leading to a valid claim e.g. medication causing unexpected health problems, latent defect in car airbags. Quite a few answers gave numerical claim sizes only e.g. $150m leading to $50m XOL and $250m claim leading to $100m XOL claim. Another common answer gave the same example twice e.g. medication causing heart problems + medication causing cancer. Some other common answers are related to product warranty rather than product liabilities e.g. 3rd party needs to be involved.

h)

This part required a discussion of issues to respond to the CFO concerns about how a claim under the Inwards Re policy might impact PLGI's capital adequacy and ICAAP. A not insignificant portion of candidates were at a loss on how to respond on loss estimation, impact on capital and additional information/next steps. These offered only three to five brief dot points which scored up to 25% of the marks. Some had run out of time. Few candidates focused on the actual coverage e.g. loss estimation for tail of claim distribution and as policy was 20 years old, PCA, capital management plans and ICAAP would already have allowance for a claim event. Many candidates expected reinsurance recoveries to protect capital, which given the $1m premium and context, was not reasonable. Easiest marks here were for the additional information/next steps but candidates did not take these, often not answering one or both. Some of the more detailed and comprehensive responses were entirely generic, describing for the CFO what a loss, capital adequacy and ICAAP are, without applying these to the contract in question. A few candidates mixed up capital adequacy and ICAAP.

i)

Requested metrics to assess the premium reasonableness for the XOL policy. Disappointingly a majority of candidates used the loss ratio as the primary metric even though there had never been a claim in the 20 years it was written. A large number also believed that PLGI was setting the rate on line, while it's the ceding insurer that offers a line at a stated rate and the Inwards Reinsurer either agrees or declines to participate. Only two candidates managed to score just over half the 4 marks for this part. The better answers considered claims data below the $100m excess. Maybe the course material does not cover substantial (inwards) reinsurance material.

Table 11 – Question 3

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**68.0**	**61.2**			
Strong Pass	54.0	48.6	79.4%	6	10%
Pass	46.0	41.4	67.6%	14	23%
Slightly Below Standard	41.4	37.3	60.9%	13	22%
Below Standard	36.0	32.4	52.9%	13	22%
Weak	31.0	27.9	45.6%	7	12%
Showed Little Knowledge	1.0	0.9	1.5%	7	12%
Did Not Attempt	0.0	0.0	0.0%	0	0%
Maximum Mark	63.0	56.7			
Average Mark	41.6	37.4			
Standard Deviation	9.3	8.4			
Co-efficient of Variation	0.22	0.22			

Candidates performed reasonably well on this question, with a pass rate of 33%.

The question focused on property insurance and was worked around a group buying scenario and discussing how this would impact pricing and risk assessment. It also covered how to allocate premium to individual risks, commercial implications and reinsurance.

a)

- There were relatively easy marks for candidates to obtain, for example to mention business interruption which some candidates didn't pick up on.
- Some candidates didn't tailor their answer with regards to catastrophe losses and referred to general differences.
- The top candidates mentioned that commercial policies have excess limit that varies depending on peril. Not many candidates identified this.

b)

- Some candidates did not mention the allocation of premiums as a challenge. This was easy mark as it appeared in a later part of the question
- Generally answered well as most candidates picked up critical points around increased purchasing power, as distinct from diversification benefit as advantages. Many were also able to identify the less tailored and individualised cover for members as disadvantages
- Few identified that experience rating would play a larger impact which could be both a positive and negative on prices

c)

- Not answered well most candidates missed out on full marks here. Some candidates misinterpreted the question and went off on a tangent on the pricing/cost of cover.

d)

- Those candidates who linked a well-reasoned rationale to additional information required were rewarded well.
- Simply writing down a running list of what is required for pricing/underwriting would have received minimal to partial marks

e)

- This 7 mark question was generally answered well by most candidates who demonstrated their knowledge on reinsurance pricing. Only a few went beyond the

average response by tailoring it specifically to reinsurance pricing (e.g. dealing with higher volatility, asymmetrical payout outcomes lends to simulation approaches, blending with industry benchmarks etc)

- Most were able to correctly identify that group premium should be lower than total of individual premiums and explained the reasons well

f)

- Most were able to identify different approaches, but the better responses provided a critique for and against arguments under each allocation methodology. The responses awarded full marks went on to correctly link the client need (i.e. stability) to the recommendation.

g)

- The better candidates were able to identify the various (advantageous and disadvantageous) commercial elements of asking the reinsurer to come up with the allocation (the same reinsurer who would also do the group policy pricing and underwriting).

- The question explicitly stated that the pricing models were the same, yet many candidates ignored this and wrote this as part of their response. The better responses were able to correctly identify the factors beyond technical pricing. Few were able to mention the possible differences arising from brokers.

h) Generally answered well by all.

COURSE 5B INVESTMENT MANGEMENT & FINANCE

1. Summary

1.1. Course Overview

The aim of the 5B Investment Management and Finance Course is to provide the knowledge, skills and judgement necessary to understand the pricing and modelling frameworks for derivative securities, including exotic options, as well as to tackle a range of practical financial problems related to such pricing / modeling frameworks. The course also equips candidates with an understanding of different derivative types, capital market theories and aspects of quantitative risk management.

1.2. Assessment

The assessment model is broken down into two parts:

Assignment	10%
Long Answer Question Exam	90%

1.3. Pass Rates

26 candidates enrolled this semester. Of these, 0 withdrew and 0 were absent for the exam, leaving 26 sitting the exam.

It is proposed that 5 candidates be awarded a pass, which implies a pass rate of 19%. Table 1 shows the historical pass rates for this subject:

Table 1 – Course Experience

SEMESTER	SAT	PASSED	PASS RATE
C5B Semester 1 2018	26	5	19%
C5A Semester 2 2017	21	3	14%
C5B Semester 1 2017	33	7	21%
C5A Semester 2 2016	43	23	63%
C5B Semester 1 2016	34	4	12%
C5A Semester 2 2015	49	10	20%
C5B Semester 1 2015	24	15	63%
C5A Semester 2 2014	32	17	53%
C5B Semester 1 2014	24	7	29%
C5A Semester 2 2013	41	21	51%
C5B Semester 1 2013	37	21	57%
C5A Semester 2 2012	30	17	57%
C5B Semester 1 2012	22	13	59%

The 19% pass rate for this exam is generally in line with pass rates for 5A and 5B for the past few years. Most candidates seemed to have struggled to explain course knowledge under examination conditions, and in addition unable to use their knowledge in a way that is relevant to the practical applications. This is most evident in Questions 1 and 2, which had greater focus on practical applications of derivative theories.

This exam attempted to balance practical knowledge, numerical computations and theoretical understanding applicable to the syllabus. Question 3, which focused on the mathematical theories of financial derivatives, was best answered. This is consistent with recent trends of a noticeable improvement in the overall emphasis on the mathematics of the course and greater understanding by candidates in general. Question 2, which applies derivative theory to an insurance product with embedded option, was next best answered. The nature and context of Question 2 is likely to be familiar to many candidates.

On the other hand, Q1, which focuses option theory and Merton model applications to structured financial products, was the least well answered. Most candidates struggled with numerical computation and finally were unable to "connect the dots" to convert the theory and computation into any form of meaningful business discussions. The nature and context of Question 1 is likely to be quite new to many candidates.

The online forum participation has been replaced by an assignment in Semester 1, 2019. The weighting of the assignment, in terms of contribution to overall assessment, remains the same as the previous online forum participation component, i.e. 10%. The assignment was generally attempted and completed well by the candidates and served as a useful exercise on the fundamental theories and mathematics of financial economics, before the actual formal examination.

2. Assessment

2.1. Overall Performance

The course assignment was very well this semester, with most students receiving a pass mark or better.

The raw pass mark for this exam was set at 90.8 (out of 200) marks; 1 candidate clearly passed and there were 1 borderline assessments (before adjustments). After considerations for the distribution of the raw marks (students found this exam difficult, especially Questions 1 and 2 of the examination), the pass mark for the exam was lowered to 81.5 marks (out of 200). The one borderline case and next 4 top raw mark fails were passed, considering the overall quality of their answers. 6 candidates passed overall.

The Examiners required that, at minimum, a passing candidate must demonstrate sufficient understanding of the key concepts in at least 2 out of the 3 questions in this exam. In other words, each candidate's final grade was decided based on a holistic assessment of their performance. Getting an E grade in any particular question by itself did not imply a candidate would automatically fail this course. However, any dangerous statements made by a candidate were noted by markers and did play an important consideration in deciding whether a candidate was considered fit to practice (a requirement for passing this exam).

2.2. Exam Question by Question Analysis

Question 1

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass (A)	36.0	36.0	60.0%	0	0%
Pass (B)	28.0	28.0	46.7%	2	7%
Slightly Below Standard (C)	25.2	25.2	42.0%	0	0%
Below Standard (D)	19.5	19.5	32.5%	1	4%
Weak (E)	16.0	16.0	26.7%	2	7%
Showed Little Knowledge (F)	1.0	1.0	1.7%	20	74%
Did Not Attempt (X)	0.0	0.0	0.0%	2	7%
Maximum Mark					
Average Mark	30.8	30.8			
Standard Deviation	9.4	9.4			
Coefficient of Variation	8.0	8.0			

The pass rate for Q1 was very low, i.e. 7%, on a standalone basis, with only two candidates out of 26 passing. It is not clear if time pressure played a factor or whether the context of the question appear too new to many candidates. Many candidates choose to not seriously attempt this question. This is the worst attempted question of the three questions.

The question tests the candidates' ability to apply the Black-Scholes framework in the context of the Merton Structured Credit Model to perform valuation and risk assessments of structured securities (collateral debt obligations or CDOs). The focus was only on being able to creatively and flexibility apply the Black-Scholes model, the question also emphasised on the ability of the candidates to determine the parameters needed to apply the formula. The latter part of the question discusses tail risk quantification of CDO tranches using simulation techniques.

Part a):

This part of the question requires the candidates to describe the Merton Credit risk model in terms of option theory and how it may be applied to value an equity tranche of a CDO. The question was intended to be a straight forward bookwork question of structure credit risk model.

Some of the stronger candidates were able to appreciate the question and receive majority of the marks in the question. However, it appears that majority of candidates did not study well the part of the course about credit risk models.

Part b):

This part of the question has two parts. Part i) seeks candidates to estimate volatility parameter required, from the underlying bond information, to compute the value of the equity tranche of the CDO using the Merton / Black-Scholes model, while part ii) seeks estimation of all other parameters in the model.

Part i) requires candidates to recall foundation level knowledge in statistics and probability distribution, which most candidates appear to have forgotten. Only one candidate (the top candidate in the course) was able to obtain majority of the marks for this part. Most candidates did not attempt the computation.

Part ii) was more straightforward and was attempted well by several of the better performing candidates. However, majority of the candidates did not attempt the question

Part c):

This question tests candidates' understanding of option characteristics and apply them in the context of the valuation of CDO tranches. Basically, the candidates need to apply some judgement and determine which assumptions assumed under standard Black-Scholes model do not necessarily hold in the case of a CDO.

Some of the stronger candidates were able to appreciate the question and receive majority of the marks in the question. However, it appears that majority of candidates did not fully gasps the concepts in this question.

Part d):

This section requires candidates to recognise the mezzanine tranche of a CDO is really the difference between two "equity" tranches under different subordination perspectives. This is a creative yet standard application of Merton model (twice) for valuing the mezzanine tranche of a CDO.

Some of the stronger candidates were able to appreciate the question and receive majority of the marks in the question. However, it appears that majority of candidates did not study well the part of the course about credit risk models.

Part e):

This question is simple extension of Part 1 b). Since the volatility of the Merton / Black Scholes model remain unchanged, only certain parameters such as the option strikes need to be re-adjusted for the mezzanine tranche valuation. No calculations are required and all the information has been given in the question. The mezzanine tranche can then be valued as the difference between the two Merton modelled "equity" tranches.

Two to three of the better candidates were able to obtain majority of the parameter setting and computation. Majority of the candidates did not attempt the question; presumably they ran out of time.

Part f):

This question asks the candidates to describe the key steps needed to perform a simulation and quantify the tail risk of loss associated with the mezzanine tranche. It requires some complex judgement in terms of appreciating the business context and parameterisation.

Other than one or two candidates who were able to appreciate the general objective of the questions and provide reasonable answers, most candidates either skipped the question or did not meaningfully attempt.

Part g):

The question seeks candidates to provide up to three ways to improve on the simulation described in the previous sub-question.

Several candidates were able to provide one method to improved accuracy only, i.e. increase the number of simulations. It was not well answered.

Question 2

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass (A)	26.0	26.0	43.3%	3	11%
Pass (B)	21.5	21.5	35.8%	6	22%
Slightly Below Standard (C)	19.4	19.4	32.3%	2	7%
Below Standard (D)	16.0	16.0	26.7%	3	11%
Weak (E)	13.0	13.0	21.7%	4	15%
Showed Little Knowledge (F)	1.0	1.0	1.7%	8	30%
Did Not Attempt (X)	0.0	0.0	0.0%	1	4%
Maximum Mark					
Average Mark	28.0	28.0			
Standard Deviation	16.4	16.4			
Coefficient of Variation	7.7	7.7			

The pass rate for Question 2 was 33%. The question was actually not well answered. The relatively high pass mark is mainly attributed to the lower pass mark for the question, agreed by chief examiners and the markers.

This question introduced an investment product with embedded optionality, and covered topics including estimating greeks, Monte Carlo simulation, and applications of no-arbitrage arguments.

Part a):

This part of the question seeks candidates to write down the payoff function of the product described in the question and identify the embedded optionality. The question thereby tests the candidates' ability to recognise embedded options in real world and framework a business product into a mathematical set up.

The sub-question was poorly answered with majority of the candidates missing the point or not seriously attempting the question. Only one candidate received 50% or more of the allocated marks for this part.

Part b):

This part of the question seeks candidates to identify and comment on the practical challenges with dynamically hedging a portfolio of short dated options.

Many candidates were able to pick up the marks allocated to the generic challenges associated with dynamic hedging. However, only some of the strongest candidates were able to identify the challenges around greek stability associated with the short dated options.

Part c):

This part of the question requires candidates explicitly compute the option delta of the product and derive the necessary hedge position in terms of numbers of future contracts.

The calculation was relatively straightforward for the stronger candidates, who were able to pick up majority of the marks. The weaker candidates either did not attempt the question or stopped the calculation upon determination of the option delta.

Part d):

Students were asked to describe the steps involved in pricing an option using Monte Carlo simulation. This part was generally well answered, with several candidates earning full marks.

Part e):

This part of the question expands on Part d) and requires candidates to explain the additional considerations in the Monte Carlo simulations for the pricing the option, if volatilities of interest rates were to be accounted for using a stochastic model.

This question was poorly answered as most candidates received little or no marks. The stronger candidates were able to receive only less than half of the allocated marks.

Part f):

Candidates were to identify that the sum of two (or more) lognormal random variables has no closed form solution. Although this question was considered straightforward by the Examiners, most candidates earned 0 marks.

Part g):

Students were required to develop no arbitrage arguments to prove why a relationship between various options holds. The majority of students found great difficulty in presenting and communicating clear arguments for why the relationship holds.

Part h):

This part examined the candidate's ability to reason why the American version of an option equaled the European version. This part was effective at differentiating candidates; some candidates found this question straightforward to answer (scoring full marks), while others struggled to earn any marks.

Part i):
This question asked students to discuss how to price an American option. It was very poorly answered, and just one candidate was able to correctly describe a method for pricing the American option.

Question 3

	Marks Required	Weighted Marks Required	% of Total Marks	Number of Candidates	Proportion of Candidates
Total Marks Available	**60.0**	**60.0**			
Strong Pass (A)	36.0	36.0	60.0%	2	7%
Pass (B)	28.0	28.0	46.7%	7	26%
Slightly Below Standard (C)	25.2	25.2	42.0%	3	11%
Below Standard (D)	20.0	20.0	33.3%	6	22%
Weak (E)	12.0	12.0	20.0%	4	15%
Showed Little Knowledge (F)	1.0	1.0	1.7%	5	19%
Did Not Attempt (X)	0.0	0.0	0.0%	0	0%
Maximum Mark					
Average Mark	37.3	37.3			
Standard Deviation	22.6	22.6			
Coefficient of Variation	9.8	9.8			

The pass rate for Question 3 was 33%. It was the most well answered question in the exam, in terms of having the highest raw marks.

The focus of this question was to test the candidate's understanding of the financial mathematics in relation to option pricing. The question involved deriving the price of an exchange/spread option, and then discussing how this option could be hedged in practice. Similar to the 2018 5B exam, candidates needed to have a reasonable grasp of the mathematics involved with handle multiple risk factors.

Part a):

The candidate was tested on the definitions of Brownian motion. This was bookwork, and well answered, as expected, as it was very similar to a question part in question 3 of the 2018 5B exam.

Part b):

This part tested whether the candidate understood the implications of GIrsanov's Theorem (i.e. whether they appreciated what happens under changes of measures to SDEs). Most candidates were able to earn at least partial marks.

Part c):

This part examined whether the candidate understood how to handle dividends/income in SDEs. It was considered straightforward, and was generally well answered.

Part d):

This question involved an application of the multivariate version of Ito's lemma. Students were required to identify the appropriate function to differentiate, but this was not considered difficult to determine. It was well answered; the average candidate mark was more 50%.

Part e):

This question asked candidates to explain why an SDE was a martingale. Encouragingly, almost all candidates earned full marks.

Part f):

This question involved manipulating expectations related to a martingale process. It was well answered by candidates.

Part g) i):

Candidates were required to explicitly apply Ito's formula to a simple function. It was generally well answered.

Part g) ii):

Students were asked to explain why a random variable was lognormally distributed, and then to derive its variance. Students found this part challenging to answer. Many candidates were unable to clearly reason why the random variable was lognormal.

Part h):

Candidates were asked to manipulate an option payoff function and derive a formula. This part was poorly answered overall, with more than 50% of candidates unable to earn any marks. However, some candidates were able to earn full marks. Hence this part served to be a good differentiator of candidates in terms of understanding.

Part i):

This question asked candidates to derive the spread option pricing formula. Most candidates found this question very challenging. However, many candidates earned at least partial marks.

Part j):

Students were asked to describe a practical hedging strategy for the spread option. Markers gave considerable discretion as to the range of answers that would earn at least part marks. It was a poorly answered question part.

COURSE 6A GLOBAL RETIREMENT INCOMCE SYSTEMS

1. Summary

1.1. Course Overview

The aim of the GRIS 6A course is to provide the knowledge, skills and judgement necessary for an actuary to understand the different systems used to provide retirement incomes and recognise the management issues in areas of regulation, governance and risk management. The course is designed to teach actuaries to use the actuarial control cycle to identify issues and develop solutions. The course is not limited to the Australian retirement income field but has cross-border application.

1.2. Assessment

The assessment model comprised:

Assignment	10%
Long Answer Question Exam	90%

1.3. Pass Rates

8 candidates enrolled this semester. All 8 candidates sat the exam.

I propose 5 candidates be awarded a pass, which implies a pass rate of 63%.
Table 1 shows the historical pass rates for this subject.

Table 1 – Course Experience

GRIS	Course A Semester 1			Course B Semester 2		
Year	Sat	Passed	Pass Rate	Sat	Passed	Pass Rate
2019	8	5	63%			
2018	19	8	42%	15	6	40%
2017	20	7	35%	20	7	35%
2016	17	7	41%	15	5	33%
2015	21	10	48%	17	7	41%
2014	15	9	60%	11	7	64%

The recommended pass rate is higher than recent semesters. The assessed candidates naturally arranged into 3 distinct groups: 3 clear passes, 3 clear fails and 2 ‘borderlines’ (for wont of a better label. I elected to pass both ‘borderlines’ and with the miniscule course numbers this meant a pass rate of 63% rather than 38%. I believe this was a fair and appropriate outcome on its own merit. However especially in view of the subject being unilaterally terminated I submit the onus should be on giving candidates every reasonable opportunity to pass.

2. Assessment

2.1. Overall Performance

I submit it would be difficult to draw any meaningful conclusions on the performance of this cohort jointly or severally due to the miniscule number of candidates.

It was very interesting that the candidates' marks fell into such divergent groupings.

The assignment appeared to have no material impact on the overall outcomes of candidates.

2.2. Exam Question by Question Analysis

Question 1

	Marks	Weighted	%	Count	Proportion
Total Marks Available	40	60			
Strong Pass (A)	28	42			
Pass (B)	20	30	50%	3	37.5%
Slightly Below Standard (C)	18	27		3	37.5%
Weak (D)	12	18		1	12.5%
Showed Little Knowledge (E)	8	12		1	12.5%
Did Not Attempt (X)					
Maximum Mark		38.5			
Average Mark		29.4			
Standard Deviation					
Coefficient of Variation					

Candidates were tasked to prepare a report for a new trustee director, outlining the challenges faced by women in funding their retirement compared to men and initiatives the fund could implement to improve retirement outcomes for women.

Overall performance on this question was weaker than expected, particularly for such a topical issue. 3 of 8 candidates passed the question (no strong passes) and a further 3 were slightly below standard.

Question 2

	Marks	Weighted	%	Count	Proportion
Total Marks Available	40	60			
Strong Pass (A)	28	42		1	12.5%
Pass (B)	22	33	55%	4	50%
Slightly Below Standard (C)	19.8	29.7		1	12.5%
Weak (D)	14	21		1	12.5%
Showed Little Knowledge (E)	8	12		1	12.5%
Did Not Attempt (X)					
Maximum Mark		53.0			
Average Mark		33.9			
Standard Deviation					
Coefficient of Variation					

Candidates were tested on the Protecting Your Superannuation Package (PYSP) initiatives.

Part (a) required a summary of the key impacts and risks of the proposed legislation.

Part (b) required an analysis of small account balances and the impact on fee revenue.

Part (c) required candidates to consider changes in member behavior that could impact the loss in fees.

Part (d) required candidates to consider changes to the group life insurance offering.

Overall performance was reasonable with 5 of 8 candidates passing.

Question 3

	Marks	Weighted	%	Count	Proportion
Total Marks Available	40	60			
Strong Pass (A)	28	42		2	25%
Pass (B)	21	31.5	52.5%	2	25%
Slightly Below Standard (C)	18.9	28.4		1	12.5%
Weak (D)	8	12		3	37.5%
Showed Little Knowledge (E)	4	6			
Did Not Attempt (X)					
Maximum Mark		46.0			
Average Mark		33.6			
Standard Deviation					
Coefficient of Variation					

Candidates were asked to determine the value of a reversionary pension.

Part (a) required calculations to be performed and key variables to be identified.

Part (b) asked candidates to consider the expense side of the 'transaction' and what further considerations may be relevant as a result.

Overall performance was good considering the unusual presentation of the question.
4 of the 8 candidates passed, 2 of these being strong passes. All candidates were able to make a positive start on the question.

COURSE 10 COMMERCIAL ACTUARIAL PRACTICE

1. Summary

1.1. Course Overview

The Commercial Actuarial Practice (CAP) Course is designed to teach students to apply actuarial skills across a range of traditional and non-traditional areas by "contextualising" actuarial solutions or approaches in the wider commercial environment.

The two assessment tasks are:

1. A take-home Post-Course Assignment ("Assignment") on one of the 4 non-traditional topics: Banking, Health, Data Analytics or Environment-Social-Governance (ESG). It is worth 20% of the final mark. Approximately one-quarter of the students were randomly allocated to each topic, except that students were not allocated a topic they had not attended at their Residential course or a topic they had been allocated in a recent semester.
2. An 8-hour Case Study Exam ("Exam") worth 80% of the final mark, under exam conditions with the use of a computer (open book, but no internet access). The candidates had to choose 1 question from the 5 mainstream topics - Life Insurance, General Insurance, Investment, Global Retirement Income Systems (GRIS) or Enterprise Risk Management (ERM), perform all the necessary analysis and prepare a substantial written report.

An overall pass requires a total of 50%, without necessarily passing the Exam.

1.2. Pass Rates

88 candidates completed the course. Of these, it is proposed that 42 be awarded a pass, representing a **pass rate of 46%.**

Table 1 – Recent Course Experience

Semester	Sat	Passed	Pass Rate %
Semester 1 of 2019	**92**	**42**	**46**
Semester 2 of 2018	88	47	53
Semester 1 of 2018	80	43	54
Semester 2 of 2017	95	58	61
Semester 1 of 2017	90	37	41
Semester 2 of 2016	64	30	47
Semester 1 of 2016	80	45	56
Semester 2 of 2015	81	51	63
Semester 1 of 2015	78	47	60

Analysis by Topic

The analysis by chosen Exam Topic is as follows:

Exam Topic	Candidates	No. of passes	Pass rate
ERM	31	14	45%
GI	20	13	65%
GRIS	5	3	60%
Invest	13	3	23%
Life	23	9	39%
Total	92	42	46%

We are disappointed with the Investment and Life Insurance results, as discussed below.

Analysis by Examination Centre

The results by examination centre were as follows:

Centre	Presented	Passed	Pass rate
Adelaide	1	1	100%
Melbourne	7	1	14%
Sunshine Coast	1	0	0%
Sydney	76	38	50%
Sub-total Australia	**85**	**40**	**47%**
Beijing	1	0	0%
Fiji	1	0	0%
London	2	1	50%
Singapore	2	0	0%
Wellington	1	1	100%
Sub-total Overseas	**7**	**2**	**29%**
Total	**92**	**42**	**46%**

The Overseas pass rate is obviously disappointing. Melbourne's pass rate last semester was 77%.

The 5 traditional-topic questions aim to be practical within the subject area, without necessarily being entirely and strictly within each Part III syllabus.

Topic	Course Presenter / Author
Health	Andrew Gale
Banking	David Service
ESG	Sharanjit Paddam
Data Analytics	Colin Priest
ERM	Tim Gorst
Life Insurance	David Service
Investments	Gaurav Khemka
GRIS	Vivian Dang & Young Tan
General Insurance	Colin Priest

Marker 1 for each topic was the author as above. David Service was Marker 2 for the 7 topics for which he was not Marker 1, in order to provide a standardising view across all topics. Garry Khemka was Marker 2 for Banking, while Aaron Bruhn was Marker 2 for Life. Both Garry and Aaron have good familiarity with CAP.

All these roles were the same as last semester.

2. Post Course Assignment Results

Although marks and grades were given for the Post-Course Assignment, a pass/fail decision was not required for each candidate; this simply formed 20% of their overall mark.

A new option was introduced this semester, whereby candidates who had already failed at least 3 times could elect to use their past Assignment average rather than complete another Assignment. 6 candidates (out of 10 eligible) took this option, so only 86 of the total 92 candidates did the Assignment this semester. Five of the 6 candidates were clear fails on the Exam and overall. The sixth was a borderline fail on the exam but passed overall due to the Credit average Assignment mark (see 191302 in Life Insurance).

This semester's scaled assignment marks ranged from 31% to 84% with an average of 58%. This range and average are deliberately similar to previous semesters. Candidates were only given a grade (Fail, Pass, Credit, Distinction, High Distinction) but were also given a copy of their Assignment with marked-up comments from the Marker. We believe these comments are particularly useful to candidates.

65 of the 86 assignment candidates were awarded a "pass" mark of 50% or more, with 4, 5 or 6 failures in each topic.

It was suggested to candidates that a Credit or better (as achieved by 36% of candidates, a lot lower than in previous semesters) was a better indication of likely overall success. Although the

correlation between Assignment and Exam marks remains low (see section 4.4) the relatively poor average standard of Assignments was, with hindsight, a warning of the disappointing Exam results to follow.

2.1. Banking

The Banking case study required candidates to advise a bank on pricing and launching a home loan product where repayments were related to the value of the home. Candidates were expected to address difficulties such as credit assessment and ongoing property valuation, as well as quantifying the impact of profits and losses when house prices rise and fall.

This question was poorly answered, with over 50% failing on raw scores, but there were 3 very good answers. Although most recognised the assumptions that were needed, many did not adequately justify them from the data provided.

The scaling chosen was to add 9 marks to most Banking candidates. The lowest 3 were given larger additions, while the top mark was trimmed to stop it becoming excessive. 6 still failed, albeit 3 of those were given 49%. Thus, students were not penalised by being randomly allocated to this topic which (as also in several previous semesters) was apparently more difficult for students than we had expected.

2.2. Data Analytics

The Data Analytics case study required candidates to analyse data to determine why the client university's students had higher average post-study incomes than other universities. Then they had to advise the university on changes to student selection criteria that would further boost the income average.

Candidate performance was a little disappointing, with only half scoring above 50% on raw scores. Common weaknesses were rambling Executive Summaries that did not emphasise the important points, results presented without pointing out the implications, or recommendations without justification. It was interesting that indirect discrimination was very poorly understood, so that has now been added to the course notes.

The scaling adjustment was to add 3% to most raw marks, meaning that two-thirds of candidates were given at least a pass mark.

2.3. ESG

The ESG case study required candidates to advise a general insurer on complying with proposed legislation to eliminate child labour from their supply chain.

This question was generally well answered, albeit there was a wide range of raw scores. Common weaknesses were in communicating to the non-technical audience, or the practicality of recommendations.

This topic was used as the benchmark for scaling, with only +1 adjustments for most students, giving 3 additional passes with only 15% of students given a fail.

2.4. Health

The Health case study required candidates to advise the Australian Health Department on options for recovering the portion of hospital costs billed to temporary residents and visitors but which is not paid.

The question was very well answered, with a good spread of marks and only 2 candidates failing on raw scores. If actuarial students are citizens of the world, then they demonstrated this by a very practical approach to the problems faced by travellers and governments. The only common weakness was in not giving reasons for (perfectly reasonable) recommendations.

The scaling chosen was to subtract 9 marks from all raw scores except only -5 for the weakest group, so that the only additional fail grades were for 2 candidates who had been given raw scores of a bare 50%.

3. Exam results

3.1. ERM

- The ERM Exam required candidates to advise an emergency services agency on ways to improve its management of the assault risk faced by its staff.
- A historically high number of 31 candidates chose this topic, and 14 or 45% passed. The high number of candidates and low pass rate are possibly signs that candidates continue to view ERM as a backup question if their "native" question appears too hard. This is a dangerous strategy and we will need to emphasise to candidates that proper preparation and background knowledge are required for all the questions.
- There was an unusual disparity between the raw marks awarded by the two markers, with M1 consistently more generous than M2. On review, the examiners concluded that M2's marks were more consistent with the standard required in the other subjects, confirming the benefit of having one common marker across all questions. As a result, all marks for ERM candidates were adjusted down as a starting point before the examiners reviewed borderline cases. Further adjustments were then made on a case by case basis.
- Due to the unusual circumstances, twelve borderline candidates were reviewed. Further adjustments were made to six of these – three downwards and three upwards. Two candidates failed and two passed as a result. Overall eight of the twelve borderlines were awarded a pass. Candidates who failed tended to show little ability to adapt a generic ERM framework to the context of the question.

3.2. GRIS

The Exam for Global Retirement Income Systems required candidates to advise a large superannuation fund on drawdown strategy options for account-based pensions. A particular requirement after making a recommendation was to write a 1-page briefing note to guide the marketing team.

5 candidates attempted this topic, and most dealt quite well with the competing requirements of living standard and longevity protection, while ensuring that investment strategies were appropriate.

3.3. General Insurance

The GI exam required candidates to provide advice to an insurer specialising in Hole-in-One insurance for golf courses, where the experience was highly dependent on weather and recent tracking technology. Candidates were required to assess experience and make statistically robust inferences about future claims costs to support their pricing advice.

20 candidates chose this topic. 13 or 65% passed. Four borderline candidates were reviewed, none of whom passed. Candidates who failed typically performed inadequate analysis or failed to deal with the risk of losing the central customer.

3.4. Investment

- This case required candidates to design a guaranteed investment product subject to a range of constraints imposed by the manufacturer. Candidates had to show creativity in designing a product that met the various requirements, and technical ability in pricing the product.

- This was a hard question, primarily because of its open nature. This was taken into account in the marking, but nevertheless the pass rate was low. In many instances the candidates who failed either communicated their proposals very poorly or failed to meet some critical aspect of the brief. So, whilst the question may have been a factor, this does not fully explain the low pass rate.
- Only 3 candidates out of 13 passed the Exam, one after an upward adjustment to marks. Two other candidates were given positive adjustments, but due to lower PCA marks these were not enough for the candidates to pass overall. Similar to last semester, the Investment candidates had low average Assignment marks – this time 7% below the average of the other subjects. Although individual assignment and exam marks are poorly correlated, this continued large difference does suggest that the Investment cohort may be a poor group. Also of note, 4 of the 13 candidates scored unusually poorly (below 30) on the exam.
- Four borderline cases were reviewed, all of which had failed on raw marks. Three had their marks adjusted upwards, however this only converted one to a pass.

3.5. Life Insurance

The Life case required candidates to specify new TPD wording and premium rates in the light of some quite draconian government intervention.

As has been the case in several recent semesters, a large portion of the candidates did not show much practical knowledge of the Life industry. Justification for assumptions ranged from logical use of the data provided, through "trust me I'm an actuary", down to some wild guesses of extremely impractical levels.

The pass rate was a disappointing 39% including 3 due to small positive adjustments. At least another 2 could have passed overall if their Assignments were better than bare passes. Considerable effort went into trying to find ways to pass the borderline candidates, but we are sadly convinced that no further passes are justifiable.

1 candidate passed at the 6th attempt, after taking the new option to use their past average assignment mark, rather than completing another Assignment. Their average of 65% was the top average so available, and this was the only candidate to pass using this option.

END