



Institute
and Faculty
of Actuaries

IFoA Exam Preparation Webinar

Examination Technique & Revision Tips

IFoA Education Actuaries
8 August 2024

08 August 2024

Purpose of Today's Session

To focus on the principles of good examination technique, how to tackle examination questions, and tips for revision.

We will be focusing on revision and examination technique today. Guidance on sitting online examinations, regulations, and IT requirements can be found on the IFoA website



Agenda

- Introductions
- Overall objective of the examinations
- What the examiners are looking for
- Principles of good examination technique
- Examples from past questions
- Inappropriate conduct – what it is, and how to avoid it
- Tips for your revision
- Post your questions (FAQ responses will be provided after today's session)



Colin



Sonal



Sally

Overall Objective of the IFoA's Examinations

To assess your:

- **Fitness to proceed to the next stage in your learning; and/or**
- **Fitness to practise as an actuary (Associate/Fellow)**



How the examinations are set

- Key reference = syllabus objectives
- Breadth & Depth of syllabus coverage
- Questions based on “unseen” scenarios
- Assessment of Understanding, Application and Higher Order skills
- NOT testing straight recall of material

Overall objective = assessment of minimum level of competence in the subject



Your objective

- Demonstrate an overall minimum level of competence...
- Understanding and application of the syllabus objectives

How can you achieve this?

- Consider syllabus objectives as part of your revision...
- Many questions will cover more than one objective (especially in later exams)
- Tailor answers to the specific question
- Method vs final numerical answer
- Avoid simply regurgitating learning material



Exam techniques

In this section, we will look at:

- Approach to answering questions
- Planning
- Time management

Let's discuss this in a little more detail...



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Answer the Question!

- Read question, underline key words. Consider:
 - Preamble in the question
 - Command verb (study the list on the IFoA website)
 - The instruction (e.g. “describe how”, “discuss why”)
 - Number of marks available
 - Structure your answer for longer questions
 - Idea generation – mind maps, focus on the question
 - Stakeholder (e.g. members, policyholders, employers)

Let's look at some specific examples...



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Example 1 – CP1

**Principles and techniques
here apply equally to SP
and SA questions**



Example - New Insurance Company

c25 – 30 distinct points

The government of a well developed country is looking to set up a brand new insurance company to sell health insurance to its citizens.

Discuss the factors that the government will need to consider in determining the assumptions for the new insurance company's statutory reserving and capital requirements [14]

Some detail required

C25 mins to answer

Example – Mini Plan

- **Use** – assumptions for Statutory Reserving / Capital requirements.
- **Experience** – Initially none / long time for credible own data
- **Data** – External Insurers? / Reinsurers? / Government? / credibility? / adjustments needed?
- **Legislative / Regulatory requirements** – what are they?
- **Expertise** – limited / external help needed?
- **Significant assumptions** – morbidity, mortality, age, expenses, business volumes / mix etc
- **Citizens** – well developed country – ageing / range of sub-groups & needs?

Example – Mini Plan

- **Depth v. breadth** - Generally examiners want a range of *different* ideas in order to demonstrate to best effect the *breadth* of your knowledge. Command word will give an indication as to the amount of *depth and detail* required in an answer.
- **Idea generation** – Range of ways to generate more points:
 - Generic “memory jogger” – but points need tailored to the question
 - Syllabus / Core Reading
 - “practical” as well as “actuarial” issues, where appropriate to the question type.
 - Use information in the question?
 - Stakeholders?
 - What would you do if you were given this task at work?



Example 2 – CM1

**Principles and techniques
here apply to any
calculation question**



$x+n=60$ (Tables book)

Timing adj.

CM1 example – Mortality Profit

Timing adj.

On 1 January 2015 an insurer issued a 25-year endowment assurance with sum assured \$100,000 payable on maturity or immediately on earlier death to lives aged 35 exact. Premiums are payable monthly in advance.

given answer

(i) Show that the monthly premium is approximately \$245 [5]

On 31 December 2020 there were 482 policies in force. During 2020, there were five deaths.

(ii) Calculate the mortality profit for 2020 [6]

(iii) Comment on your answer to part (ii) [2]

Basis: Mortality AM92 (select)

words!

Interest 4% p.a.

[x] vs x

~23 mins

gross

Expenses (initial, renewal, claim – detail provided)

[Total 13]

CM1 Example – Strategy

Part (i) structure the calcs (value premium, benefits, expenses separately)
easier to mark
partial answer gets partial credit
don't panic if you can't replicate the given answer

Part (ii) structure the calcs (reserves, DSAR, EDS, ADS, profit/loss)
use the given answer from part (i)
easier to mark
partial answer gets partial credit

Part (iii) don't skip! Can be “easy” marks
observations on the numbers – why profit/loss? – order of magnitude?
“higher skills” shows the examiners your understanding



And finally....let's get specialist!

Example 3 – SA4



SA4 example – Beneficiary options

A final salary pension scheme in a developed country has a Normal Retirement Age (NRA) of 65.

Early and late retirement is allowed in the scheme rules, with trustee and sponsor consent, but this has always been withheld by the sponsor. The trustees are keen to encourage more flexibility for members and have therefore asked their actuary to assist them with preparing a proposal to present their arguments for permitting early and late retirement to the sponsor.

(i) Set out the points that the actuary may present in the proposal, including:

Pros & cons

(a) the advantages and disadvantages of allowing early and late retirements, from the point of view of members, sponsor and trustees.

3 stakeholders

(b) how early and late retirement pensions may be calculated.

~22 mins → [12]

SA4 Example – Strategy

Part (i) No mark split shown so it'll be roughly an even split (a) vs (b).

Part (i)(a) – *roughly 6 marks*

structure response into the three stakeholders

Consider their viewpoint and cover advantages and disadvantages

from those viewpoints – *roughly 2 marks per stakeholder*

Ensure a balanced answer (i.e. not just the advantages!)

Part (i)(b) – *roughly 6 marks*

How, not why. Set out the process but not the rationale

Setting the assumptions, purpose, objective of calculation.

Calculation process, actuarial accuracy vs pragmatic approach

Consider external factors, eg regulation, legal requirements



Planning

- Good planning is cited by examiners as a key reason for scoring well
- Essential for later subjects (CP1, SP/SA series)...
- ...and for longer question parts (~10 marks plus)

What is planning?

- Identify info in the question
- Consider background information provided...
- ...and the specific instruction in the question
- Rough ideas on scrap paper
- Review plan, and refer back to the question



Time Management

- Marks allocated to the question
- Don't spend too long on one question...
...even if it's a question you "like"
- Balance your time between:
 - Reading the questions
 - Planning your answers
 - Writing your answers
 - Reviewing your answers

Time management is key in an "open book" environment...

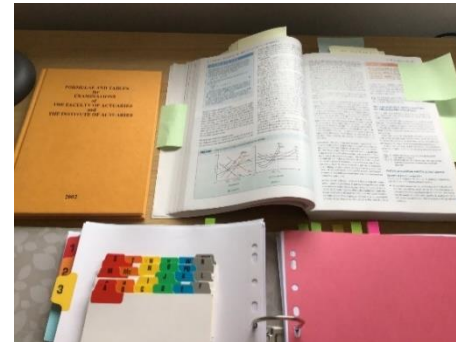
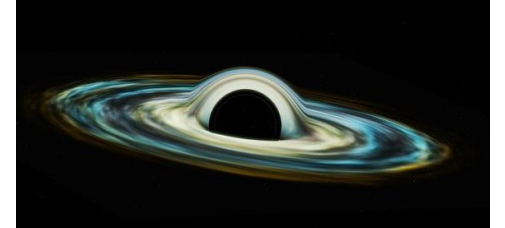


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Time Management in an open book environment

“I didn’t have time to look through my notes” IFoA student survey

- Too many resources = time-hungry black hole
- Prepare as if for closed book
 - You shouldn’t have to refer to your notes if well-prepared
- Choose & organise your resources wisely
- Key formulae/results/mnemonics
- No need to reference facts you can recall
- Check IFoA guidelines



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If a question looks impossible...

- Don't panic!
- Other candidates will feel the same
- Partial answers can gain partial credit
- Don't forget the “straightforward” points
- Role-play. Imagine this is a work project
- Can be OK to skip an occasional question/part
- Objective = score enough marks across the whole paper



Written answers – “wordy” questions

- Not looking for perfect spelling/grammar...
- ...or full sentences (except for CP3)
- Switch autocorrect/spellcheck off
- Plot & plan in your script...
- ...then expand when writing out your answers
- Be careful when deleting!



Written answers – calculation questions

- Most marks are for the method, not the final numerical answer
- Break down calculations into stages
 - e.g. gross premium in CM1, separate calcs for premium, benefits, expenses
- Copy/paste within your answer to save time
 - e.g. for proofs, type out 1st line, then copy/paste to next line, amending as you go
- If stuck, write out in words



Common reasons for not succeeding

- Not familiar enough with the material
- Not practising
- Not planning answers
- Answering a different question or scenario
- Too few points; lack of breadth/depth; basic points omitted

Recall the overall objective of the examinations...

“fitness to proceed and assume professional responsibilities”



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Tips on Sitting the Assessments

- Read the question!
 - Preamble, stakeholder, “command verb”, policy being valued, marks available
- Plan your answers
 - Identify key issues/steps, themes, specifics, idea generation, structuring
- Time management
 - Be strict, law of diminishing returns when accumulating marks in a question
- IT issues
 - Don’t panic, IFoA helpline, test in advance



Standards of behaviour during an examination

- Actuaries' Code Principle 1: *“Members must act honestly and with integrity.”*

Inappropriate conduct:

“Any action or attempted action that may result in a candidate or student of the IFoA gaining an unfair advantage during IFoA assessments, or any other part of the qualification process.”

- Examples (list not exhaustive)
 - Passing off others' work as your own (e.g. Core Reading, past exam solutions)
 - Collaboration or communication with others during the examination
- Identification methods
 - Software, whistleblowing, examiner identification, investigations



Plagiarism & Collusion: How to avoid it

- ✗ **DON'T** copy/paste extracts from learning material into your script
- ✗ **DON'T** use pre-prepared templates in your answers (word, excel, etc)
- ✓ **DO** write your answers using your own words
- ✗ **DON'T** contact anyone during the examination (other than IFoA helpline)
- ✓ **DO** refer any concerns about standards of behaviour to the IFoA
 - Actuaries' Code Principle 5: *“Members should speak up if they believe, or have reasonable cause to believe, that an action is unethical or unlawful.”*

If it feels wrong/unethical, then it probably is!



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What now?

- Review the syllabus
- Practise exam questions (under exam conditions)
- Compare your answer to the model solution
 - Why did some of your points not score?
 - Understand and review the points you'd missed
 - How could you improve next time?
- Focus on areas with more room for improvement
- Revise actively – find a revision partner
- Try different planning techniques
- Read Assessment Regulations & Examinations Handbook



Resources and Links

General advice on preparing for the exams

www.actuaries.org.uk/studying/my-exams/ifoa-exams

Guidance on inappropriate conduct

<https://actuaries.org.uk/qualify/prepare-for-your-exams/assessment-regulations/inappropriate-conduct/>

Past examination papers and examiners' reports

<https://actuaries.org.uk/qualify/prepare-for-your-exams/past-exam-papers-and-examiners-reports/>

Command verbs (list, discuss, explain) and their definitions

<https://actuaries.org.uk/qualify/prepare-for-your-exams/command-verbs-used-in-the-associate-and-fellowship-exams/>

Qualification Handbook

<https://actuaries.org.uk/qualify/student-and-associate-newsletters-and-updates/qualification-handbook/>

Examinations handbook – link in Qualification Handbook

<https://actuaries.org.uk/qualify/examinations-handbook/>

Assessment regulations – link in Qualification Handbook

<https://actuaries.org.uk/qualify/prepare-for-your-exams/assessment-regulations/>



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**Thank you for
attending!**

Please continue to submit your questions and comments, which will be collated at the end of this webinar and a FAQ document produced.



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