

# **INSTITUTE AND FACULTY OF ACTUARIES**

## **EXAMINERS' REPORT**

April 2017

### **Subject SA3 – General Insurance: Specialist Applications**

#### **Introduction**

The Examiners' Report is written by the Principal Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and using past papers as a revision aid and also those who have previously failed the subject.

The Examiners are charged by Council with examining the published syllabus. The Examiners have access to the Core Reading, which is designed to interpret the syllabus, and will generally base questions around it but are not required to examine the content of Core Reading specifically or exclusively.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report; other valid approaches are given appropriate credit. For essay-style questions, particularly the open-ended questions in the later subjects, the report may contain more points than the Examiners will expect from a solution that scores full marks.

The report is written based on the legislative and regulatory context pertaining to the date that the examination was set. Candidates should take into account the possibility that circumstances may have changed if using these reports for revision.

Luke Hatter  
Chair of the Board of Examiners  
July 2017

**A. General comments on the *aims of this subject and how it is marked***

1. The aim of the General Insurance Specialist Applications subject is to instil in successful candidates the ability to apply knowledge of the United Kingdom general insurance environment and the principles of actuarial practice to providers of general insurance in the United Kingdom.
2. Our expectation of a passing candidate at this stage is that, broadly, they should appear capable of stepping up to a head of function (pricing / reserving / capital) role at a small-mid sized organisation or being a senior member of a function team at a larger organisation. They should demonstrate not only a grasp of the technical aspects of general insurance actuarial work, but should also have a good sense for products, the competitive marketplace, regulatory environments and the operational aspects of an insurance company. They should be able to pull these areas of understanding together to provide well rounded advice to the users of their services.
3. Consistent with previous examiners' reports, we would offer candidates two key pieces of advice – (i) read the question properly and (ii) take the time to actually think about what is going on. Further to previous reports, we would stress that candidates do not need to get the majority of the points included in this report in order to pass (there are significantly more than 100 marks available for the points in this report). Time spent making sure that you are answering the question that is asked is therefore more valuable than a panicked rush to put down as many points as possible, regardless of whether they are relevant.
4. On the first issue, candidates should always work on the assumption that the question wording has been carefully chosen. It is therefore essential to read the question properly.
5. If something is not asked for then candidates will waste valuable time writing answers that will gain no marks. These broader answers may be a logical next step to the question and so may be appropriate for candidates to discuss in a professional context. This is an exam however with a finite number of marks available and so the scope must necessarily be limited and specifically defined.
6. If a question does specifically mention something, candidates should also assume that there are definitely marks available for this aspect of the question. During the exam setting process, any content that is superfluous will have been removed. A clear implication of that is that if there are numbers provided in the question paper then there are marks available for comment and consideration of those numbers.
7. Wording of question sections should also be considered in the context of the position within the overall question. Where new question information is provided between sections, candidates should recognise that this information is specifically relevant to the following section or sections. When answering preceding question sections, candidates should not consider any subsequent information in their answers (although it may cover similar ground).
8. Various examples from this paper of recurrent failure to read the question are noted below. On the second issue, candidates should note that SA3 is the key paper at which

we test candidates' broader thinking. This is generally the final paper before qualifying as a professional, and we consider a capacity for broader thinking to be one of the best indicators of a candidate's suitability to act in a professional capacity once qualified.

9. As such we aim to design exam papers so that it is difficult to pass without displaying some capacity for independent and broad thinking, as well as to heavily reward instances where these skills are displayed. When reviewing past papers, candidates should assume that the marks available for generic points are substantially less than those awarded for the more challenging points that would be the mark of high quality professional insight in a practising actuary. Marks available for list items from bookwork are lower still.
10. We strongly recommend that candidates step back and take the time to thoroughly think about what is actually going on in question situations proposed rather than simply considering numbers to be analysed with standard techniques. For example, candidates might stop to think about what claims actually are for a particular class of business, considering factors such as what actually causes the claim, who brings the claim, how it is dealt with once brought, what makes one claim small while another is substantial etc.
11. This more grounded, real world perspective will help candidates to consider such things as practical issues, stakeholders involved and their potentially diverging objectives, wider impacts, regulatory or ethical issues, inappropriateness of certain actuarial techniques for the specific situation, current economic or cyclical effects etc. This is likely to lead to significantly broader point generation (and indeed reflects the thought processes of the examiners in drafting the questions and solutions) and a more rounded understanding of the underlying risks and dynamics which should also be of value to candidates when dealing with different stakeholders in their professional life.
12. Again, some examples of this failure to think more widely on the current paper are below. More generally, we would also advise candidates to employ basic exam techniques such as well structured answers and effective time management.

**B. General comments on *student performance in this diet of the examination***

The pass mark and pass rate are broadly consistent with recent papers. The majority of candidates scored well on bookwork orientated elements which did little to distinguish between any candidates that were close to the passmark. There was some evidence of improvement in candidates being able to do original thinking where required for a question, although some sections were a struggle. There were fewer instances of misunderstanding the question, which may reflect either improved candidate performance or the outcome of continued efforts by the setting team to make the questions as unambiguous as possible.

1. Part (i) was bookwork almost universally well answered. Part (ii) was reasonably well answered with candidates showing some ability to tie their answers to the specifics of the question. Part (iii) was weaker with a number of candidates failing to stick to the question.

2. This was generally the least well answered question. Candidates are clearly more used to thinking of loss performance issues rather than conduct issues, and struggled to address operational issues / sales processes / delegation of authority etc.
3. Well answered, with candidates showing some good original thinking about an unusual product design. Strangely, once the question moved back into more familiar territory of considering reserving issues for an unusual product the quality dropped.

## C. Pas Mark

The Pass Mark for this exam was 58

## Solutions

- Q1** (i) Number of people covered – the more people covered the more claims would be expected (i.e. it's an exposure measure) [1]  
 Ages of people covered – expect likelihood/frequency of medical treatment to increase with age [1]  
 Number of times have used ambulance in past year/number of years – may be a good predictor of future ambulance need and/or an underlying medical condition [1]  
 Address – linked to the likely distance of ambulance transport required, which is in turn linked to cost [1]  
 Pre-existing medical conditions – may be a good predictors of future ambulance need  
 Sales/Payment method – may be lower admin costs if buy online/pay annually etc. [1]  
 Excess – if customer is prepared to pay part of claims cost, reduces average cost, and may indicate lower expected frequency [1]  
 Sex – there may be statistics which show differences in utilisation of ambulance by sex [1]  
 Occupation / past times – some jobs/hobbies may be more likely to result in injury, and so require an ambulance [1]  
  
*Credit for other valid examples / reasons × 2* [1]  
[Max 6]
- (ii) Premium needs to cover expected claim costs [1]  
 An approximate claim cost estimate would be =  $10\% \times \$500 \text{ m} = \$50\text{m}$  [1]  
 This estimate assumes the government has accurately estimated total ambulance fees for the country [1]  
 - The government should know the total national utilisation of ambulance services at present [½]  
 - Government may not have appropriately allowed for changes in utilisation due to increases in fees (i.e. some people choosing not to use ambulances due to the cost) [½]  
*Other valid challenge to base figure* [½]  
*Other valid challenge to base figure* [½]

***Relativity of city to overall***

|  |       |
|--|-------|
| Need to consider whether city population have higher or lower than average ambulance costs   | [1]   |
| It may be possible to obtain accurate ambulance usage statistics for the city to refine this estimate  | [1/2] |
| For example, understanding the number of ambulances based in the city and the distance travelled by each ambulance each year   | [1/2] |
| Alternatively may be able to estimate this information, for example, talk to / survey/ monitor ambulance drivers, contact garage which maintains city ambulances, etc. | [1/2] |
| Consider demographic statistics on the city and how these vary to national average.  | [1/2] |
| For example, if city population is younger than national average, likely to have lower than average claim costs  | [1/2] |
| (or other relevant investigation to understand likely costs)   | [1/2] |
| Fee varies by distance – and the mayor will only cover transport in city, so distance may be less than the national average  | [1]   |
| May regularly be at minimum  | [1]   |
| Insurance only covers resident population – residents will spend some time outside city (e.g. on holiday), and people on holiday in the city are not covered.          | [1]   |
| Any potential liability exposure to poor ambulance service provision   | [1]   |
| Accumulations  | [1/2] |
| . . . Sensible accumulation example  | [1/2] |

***Other components of premium***

|  |       |
|--|-------|
| Premium needs to be sufficient to also cover insurer's expenses  | [1]   |
| But the mayor's staff will do the claims administration and settle claims in bulk each month   | [1/2] |
| Need to know mayor has appropriate procedures in place to limit claims to only those who are eligible (live in city, travel within city)                                       | [1/2] |
| Expenses are therefore not expected to be material   | [1/2] |
| Need to allow for the net cost of reinsurance  | [1/2] |
| - However the insurer may not need any reinsurance given the nature of the risk, for example, there is limited large loss/catastrophe exposure                                 | [1/2] |
| - If the total exposure to the risk is too high, consider quota share / coinsurance model – where premiums and claims are shared in the same proportions                       | [1/2] |
| Consider insurance premium tax   | [1/2] |
| Premium should cover insurer's cost of capital / profit margin   | [1/2] |
| However the business should be capital light, so the percentage loading for profit should be quite small   | [1/2] |
| This is because claims are reported and paid quickly – there will be no material outstanding claim balances, and the final profitability of the business will be quickly known | [1/2] |
| Investment income  | [1/2] |
| . . . Minor as short tail  | [1/2] |
| . . . Timing of payments will impact   | [1/2] |

***Other factors / opinion***

Consider relationship with government/mayor [1]  
 There may be reputational reasons for writing / not writing this high profile account [½]  
 Other benefits of underwriting significant account [½]  
 Consider the motivations for the mayor in looking for insurance, rather than simply paying claims? [½]  
 We don't have enough information to be certain about the adequacy of the indicated premium [½]  
 On balance – perhaps reasonable to expect claims less than 10% of national total or \$50 m, given only cover people who live in city for city journeys [½]  
 Other components of premium such as expenses do not appear material [½]  
 Subject to all the investigations described above, seems reasonable that \$65 m might be enough to write the business [½]  
 [points available for alternative conclusion with appropriate reasons] [1]  
 [Max 9]

(iii) ***General observations***

Given the statistics, the average claim cost per person appears to be \$50 per year (= \$500 m total expected fees / 10 million) [½]  
 Even with loadings for expenses, profit margin etc., its likely the average cost of insurance will be far less than \$300 per person per year [½]  
 However some people may have expected claim costs in excess of \$300 per year [½]  
 For example, if there is a frequent need for ambulance treatment and/or the cost of ambulance transport is high (due to distance from hospital) [½]  
 Ordinarily insurers will set premiums based on expected claim costs, meaning some premiums will exceed the \$300 government target [½]  
 Insurers would expect to make a loss on some policyholders (where expected claim costs are high) [½]  
 Insurers may still be prepared to offer the insurance if they expected the product to be profitable overall [½]  
 The product would only be viable for the insurance industry if large numbers of people with low expected claim costs purchase the product, so profits on this group offset losses on customers with expected claim costs above \$300 [½]  
 Individual insurers would need to market their products to avoid attracting a higher than average proportion of loss making business [½]  
 Because healthy people will be charged far more than the premium based on expected claim costs, they may not buy the product [½]  
 If only people with very high expected claim costs buy the product, the premium will need to be very high, and/or insurers may make a loss [½]

***Government actions***

Government could simply regulate the premiums, requiring that no premium is above \$300 [½]  
 Government would also have to require that insurers to not decline to insure people who want to be covered, even if the expected claim costs are in excess of \$300 [½]

|   |                |
|---|----------------|
| Government could mandate a formal risk sharing arrangement / pooling arrangement, where insurers share the cost of customers with high expected claim costs                                       | [½]            |
| Alternatively government require that all people are charged the same premium, regardless of expected claim costs (community rating)  | [½]            |
| This would ensure premiums are set above the “market” premium for low risks customers, providing a source of profit to offset loss making customers where expected claim costs exceed the premium | [½]            |
| Government could require everyone to insure (compulsory insurance), which would ensure premiums are similar to the expected claim costs (\$50 per year and much lower than \$300 per year)        | [½]            |
| Set up own captive  | [½]            |
| Government could pay a premium subsidy to reduce premiums below \$300   | [½]            |
| Alternatively government could provide a claim cost rebate / subsidy to insurers  | [½]            |
| Government could provide free cover to risks with highest expected claim costs  | [½]            |
| - These options would involve expense to government – fee may be being introduced to reduce expenses  | [½]            |
| - Subsidies may reduce efficiency, by reducing the incentive for insurers to keep rates low once they exceed \$300  | [½]            |
| Part of the purpose of the initiative may be to discourage use of ambulances  | [½]            |
| It also removes incentives for the insurers to reduce demand for ambulances, for example, but helping frequent ambulance users stay well and out of hospital                                      | [½]            |
| Government could change the ambulance fee structure   | [½]            |
| for example, charge a higher amount per km but have a fixed annual cap for all ambulance use  | [½]            |
| or a lower maximum fee per journey  | [½]            |
| Fines for misuse  | [½]            |
| Other mitigation suggestion   | [½]            |
| Allow insurers to provide a more basic product which costs less than \$300  | [½]            |
| By having a fixed annual limit  | [½]            |
| By including a co-payment / excess  | [½]            |
| However this may mean the product is not fit for purpose – no point having cheap premium product if policyholders have material out of pocket cost  | [½]            |
| Providing better data provides insurers more confidence around rating – lets people reduce rates for some customers perhaps   | [½]            |
| Reduce insurance premium tax  | [½]            |
|   | [Max 10]       |
|   | [Total Max 25] |

Part (i) Almost everyone scored full marks on this section.

Part (ii) Reasonably well answered, candidates almost universally made some commentary about the other components of premium (the

most generic part of the answer) and the majority gave some consideration to relativities between the city and the overall population.

Part (iii) Relatively poorly answered. A number of candidates showed a limited grasp of the skewness of health outcomes, suggesting that premiums over \$300 were unlikely to be an issue because of the low average cost. It was also common for candidates to not focus on the core of the question (i.e. actions the government might take) and a number did not focus adequately on the aims that all could get insurance within that price.

- Q2** (i) Reinsurers [½]  
likely to be the most sophisticated policyholders with most data & knowledge [½]  
with complex modelling capability and legal teams to test product is suitable. [½]  
Insurer/managing agent / mutual [½]  
as professionals in the insurance area likely to have knowledge to assess products [½]  
some very small insurers, particularly in emerging markets may have less knowledge. [½]  
Multi-national corporation [½]  
likely to have significant resources to hire in-house insurance specialists [½]  
or external legal/consultancy advice so likely to be a sophisticated consumer. [½]  
Large company [½]  
likely to have resources to seek independent advice, e.g. corporate broker. [½]  
Small business/micro enterprise [½]  
likely to need more protection to ensure products are suitable as will lack resources to carry out independent investigation. [½]  
Government / local authority [½]  
Likely to be similar to a large company [½]  
Charity / affinity group [½]  
Likely to be less sophisticated for same size than a commercial entity [½]  
Individual advised by broker [½]  
if the consumer receives independent third party advice it will lower the conduct risk [½]  
would not necessarily apply if the broker was tied so acting as agent of insurer. [½]  
Individual [½]  
unlikely to have insurance expertise so extra care in ensuring products are appropriate. [½]  
Vulnerable individuals [½]  
are likely to need the most extensive support from conduct risk regulations [½]  
examples may include the elderly or those with learning disabilities. [½]  
[Max 9]



- (ii) (a) **Design**
- Intended distribution channel.. [1]
  - sold via internet price comparison site more risky as can't provide personalised advice. [1/2]
  - Complexity of the product [1/2]
  - e.g. if it requires customer to select from many optional features. [1/2]
  - New designs may be more risky as customers will be unfamiliar. [1/2]
  - Complexity & comparability [1/2]
  - Add-on vs standalone [1]
  - Especially if no clear alternatives [1/2]
  - Ensure that the product design meets customer needs.. [1]
  - including appropriate excess / sum insured [1/2]
  - should be a realistic prospect of customer being able to make a claim. [1/2]
  - Could use customer input in the design process e.g. testing different designs on focus groups. [1/2]
  - Cover should not already generally provided by another product. [1/2]
  - Ensure that changes to existing products are subject to review for possible adverse impacts on customers. [1/2]
- (b) **Pricing**
- Should not be unreasonably profitable [1]
  - Price should be fair for each customer – “cross subsidies” where other customers pay more to cover losses from a particular group of customers should be avoided [1]
  - Avoid unfair rating methods such as “inertia pricing” for those that don't shop around. [1/2]
  - or discriminatory factors such as race or gender. [1/2]
  - Charges (e.g. for policy amendment) should be commensurate with actual costs. [1/2]
  - Commission levels such be reasonable compared to premium charged / work involved [1]
  - Incentives should not wrongly motivate staff [1]
  - Prices should be clear, [1/2]
  - particularly when offering an add-on cover to another product. [1/2]
  - . . And increases should be clear & reasonable at renewal [1/2]
  - Prices quoted to customers should include all taxes and other charges. [1/2]
  - Care should be taken when pricing a product that has optional elements [1/2]
  - e.g. pricing structure encourage customers to miss key parts of the cover to lower price, thereby making product practically useless. [1/2]
- (c) **Wording**
- Policy wordings should be in clear, accessible language that would be expected to be understood by the intended policyholder. [1]
  - A policy summary should be provided alongside the full terms. [1/2]
  - Details of how to cancel or amend policy [1/2]
  - and costs of doing so should be provided. [1/2]

- . . . Should not be overly onerous to cancel / amend [½]
- Cooling off period [½]
- Key facts should be provided [½]
- Good definitions [½]
- Explicit service levels [½]
- Procedures for making a claim should be clearly laid out. [1]
- and these should not be unduly difficult for customer. [½]
- no unfair restrictions on repair firms [½]
- No unfair terms such as unreasonably low limits of liability should be included. [½]
- Exclusions should be listed explicitly, with examples if necessary. [1]
- Details of the insurer include contact details should be set out in the policy.. [½]
- avoiding methods like premium rate phone lines that discourage customer contact. [½]
- Complaints procedure should be described clearly.. [1]
- including escalation to regulator/independent bodies if not happy with the company response. [½]
- [Max 12]
- (iii) Some sort of information dashboard or summary that is prepared on a monthly basis and covers key numerical data. [1]
- Particular metrics can include:
- Claims data such as time taken to settle a claim, number of re-opened claims, number of rejected claims. [1]
- Number of complaints by product line segmented by the type of complaint (e.g. claims settlement, misleading wordings). [1]
- Any complaints referred to regulator and their outcomes. [½]
- Information on policy cancellations or non-renewals. [½]
- Outcomes of new product reviews. [½]
- Low loss ratio products [½]
- High commission products [½]
- Overall portfolio commission [½]
- Fines / sanctions [½]
- Mystery shopping outcomes [½]
- Re-opened / renewed [½]
- Other reasonable suggestions [½]
- Other reasonable suggestions [1]
- Regular results of staff surveys or web based learning identifying awareness of conduct risk issues in front line workforce. [1]
- Customer feedback including satisfaction scores from different aspects of consumer experience (e.g. claims handling) or focus group output. [1]
- Results of internal audits/external consultant reviews should be made available to the Board as quickly as possible after conclusion. [1]
- Any formal regulator review or feedback should be presented to senior management and then the Board, together with recommendations for improvements required. [1]
- More granular information required for the operational management than the Board which is more interested in strategic issues. [½]
- MS11 evidence templates [½]

- |   |         |
|---|---------|
| Actuarial function report   | [½]     |
| ORSA / model outputs  | [½]     |
| Will need to ensure that data is available to satisfy external reporting requirements.. | [½]     |
| such as to national regulator or auditors.  | [½]     |
|   | [Max 8] |
- (iv) Key issue is that certain functions are undertaken on behalf of the insurer and these may not be performed up to the required standard by delegated authority. [1]
- |   |         |
|---|---------|
| Inadequate data systems at coverholders mean that insufficient management information on conduct risk issues can be produced. | [1]     |
| Poor claims handling  | [½]     |
| including unreasonable delays   | [½]     |
| or attempting to reject legitimate claims to increase profit.   | [½]     |
| Employees may be insufficiently skilled or acting inappropriately   | [½]     |
| Employee incentives could encourage poor behaviour (i.e. volume based incentives only)  | [½]     |
| Sales techniques inappropriate (e.g. cold calling)  | [½]     |
| leading to products sold inappropriate for customers needs.   | [½]     |
| Unreasonable charges for policy changes   | [½]     |
| Failure to address customer complaints  | [½]     |
| (or do so in a timely manner).  | [½]     |
| Unclear or misleading policy wordings if insufficient control / review  | [1]     |
|   | [Max 4] |
- (v) Certain aspects could be taken back “in house” by the insurer, until performance improves, [1]  
e.g. complaints handling. [1]
- |   |     |
|---|-----|
| Conduct risk assessments undertaken by insurer before using each delegated authority..                                    | [½] |
| require remedial action to be taken before business is written.   | [½] |
| Policy wordings to be pre-approved by insurer prior to sale.  | [½] |
| Minimum standards for treating customers fairly should be written into delegated authority agreements.                    | [½] |
| <i>Valid example</i>  | [½] |
| <i>Valid example</i>  | [½] |
| with penalties if these are not achieved  | [½] |
| or incentives based on customer satisfaction measures.  | [½] |
| Restrict authority  | [½] |
| <i>Valid example</i>  | [½] |
| Regular audits should be undertaken by insurer to ensure that standards are appropriate.                                  | [½] |
| level of scrutiny could depend on size or complexity of the product.  | [½] |
| Insurer carries out customer satisfaction surveys/focus groups with delegated authority policyholders to identify issues. | [½] |
| Ensure that all delegated authority staff have received appropriate training.   | [½] |
| Mandate that set scripts are used in sales interactions with customers.   | [½] |

Embed conduct risk objectives in job descriptions and appraisal process. [½]

[Max 4]

[Total Max 37]

- |            |   |
|------------|---|
| Part (i)   | Overall well enough answered. A number of candidates proposed some odd segmentation of individuals, thinking that insurers would identify accountants or actuaries with high financial sophistication and yet failing to identify that broker / IFA advised individuals have a very different risk profile.   |
| Part (ii)  | Majority of candidates made some reasonable points on policy wording aspects, but struggled more particularly with overall design issues.   |
| Part (iii) | Quite badly answered. A number of candidates went completely off topic and didn't focus on reporting as the question asked. It was also common for candidates to talk about reporting more appropriate for loss performance management rather than for conduct issue identification. A number of candidates seemed to grasp the focus of the question without mentioning complaint data at all. |
| Part (iv)  | Most candidates picked up a couple of points but few picked up all four marks in spite of the number of points available. This should have been easy enough to generate points for – think about what a delegated authority might do for an insurer, then think of what could go wrong with it (indeed there were marks just for stating that they could do something wrong).                   |
| Part (v)   | Again most candidates got some points but few generated a broad enough range to pick up four full marks.  |

- Q3**
- |     |  |     |
|-----|--|-----|
| (i) | Lack of understanding of risk leading to financial loss...               | [1] |
|     | insufficient or inappropriate rating factors leading to selection        | [½] |
|     | loose policy wording providing additional coverage                       | [½] |
|     | insufficient data to adequately assess claims                            | [½] |
|     | Take up rates not as expected...   | [1] |
|     | too low so sales do not cover fixed costs                                | [½] |
|     | too high so writing outside of plans or suggesting mis-pricing           | [½] |
|     | slow to market so lose first mover advantage                             | [½] |
|     | inadequate understanding of requirements of customer needs               | [½] |
|     | Insufficient testing of systems / controls prior to product launch...    | [1] |
|     | IT system failure leading to brand damage or loss of policyholders       | [½] |
|     | website failure displaying incorrect prices could cause regulatory fines | [½] |
|     | claims information not captured as expected                              | [½] |
|     | testing in staging rather than live environment                          | [½] |
|     | poor functionality for customers   | [½] |

|  |         |
|--|---------|
| insufficient or out of date management information | [½]     |
| Other various:                                     |         |
| Competition  | [½]     |
| Regulatory / licensing                             | [½]     |
| Reputational                                       | [½]     |
| Liquidity / phasing                                | [½]     |
| Generic risk e.g. credit market operational        | [½]     |
| Generic risk e.g. credit market operational        | [½]     |
|  | [Max 6] |

- (ii) As this is a small company introducing a new product they may lack the required product knowledge and expertise... [½]  
 and data to price the product [½]  
*Other generic small company comment* [½]  
*Other generic small company comment* [½]  
 It could expose the company to moral hazards if the celebrity is less risk adverse after purchasing the insurance [1]  
 e.g. if the celebrity feels protected against the financial consequences of reputational damage and behaves more carelessly [½]  
 or possibly enjoys the notoriety gained from bad behaviour and seek to damage their reputation once free from the financial consequences of their actions. [½]  
 There are fraud risks such as the celebrity deliberately damaging their reputation so as to benefit financially from a claim [1]  
 e.g. if they fear their earning capacity is about to reduce. [½]  
 The company may be exposed to anti-selection if the celebrity has secret vices and predilections which they do not disclose [1]  
 which may be hard to prove as material non disclosures after an insured event has occurred. [1]  
 The insurance company might damage its own reputation if it is seen to reward the celebrity's bad behaviour [1]  
 particularly risky if the behaviour is illegal or morally repugnant e.g. murder, drug dealing. [½]  
 If the policy is sold on a claims made basis the celebrity purchase insurance knowing there is a high or immediate risk of exposure for a past act. [1]  
 If the policy is sold on a loss occurring basis it may be difficult to determine the date of loss [1]  
 particularly if the celebrity's downfall has occurred through a series of minor bad acts or the event which caused reputational damage was small relative to past acts but a tipping point was reached. [1]  
 There is a risk of costly legal disputes around whether an insurance event has occurred as it may be difficult to clearly define reputational damage [1]  
 bad behaviour may be tolerated for some celebrities and not for others e.g. drug taking by rappers versus football players. [1]  
 some celebrities can recover quickly from a scandal whereas for others it is career ending [1]  
 many celebrities are subject to negative publicity and rumours from time to time particularly through the internet and social media making it difficult to determine which if any of these constitute actual reputational damage. [1]

Similar legal risk arises around establishing the financial impact of reputational damage if the policy is sold on an indemnity basis [1]  
 celebrity income can be volatile and prone to sudden and extreme directional changes [1]  
 reputational damage may have little impact on earning ability and might even increase it in some cases [1]  
 if a celebrity is falling out of favour with the public at the same time as a reputational scandal it may be difficult to separate these impacts on earnings. [1]  
 [Max 8]

(iii) **Risk and rating factors:**

Exposure information [1/2]  
 estimation of cost of campaign [1/2]  
 endorsements [1/2]  
 product recall [1/2]  
 and PR consultant in current campaign [1/2]  
 Per campaign or annual? [1/2]  
 If annual number / type [1/2]  
 Risk factors  
 history of brand damage during previous marketing campaigns [1/2]  
 Size of deductible (if any)... [1/2]  
 deductible will also ensure company works to mitigate risk [1/2]  
 Type of product being endorsed... [1]  
 likely impact of brand damage linked to nature of product [1]  
 e.g. health food advertised by athlete who is picked up for doping [1/2]  
 existing penetration of product, e.g. start-up might be more adversely impacted than a well-established product [1/2]  
 Nature of marketing campaign... [1]  
 country specific or global campaign will impact penetration and scale of limitation exercise and damage [1/2]  
 use of endorsement (e.g. television, posters, online, directly on product etc.) [1/2]  
 length of campaign will indicate timescale of coverage and size of potential loss [1]  
 Nature of company providing the product... [1/2]  
 company with good risk management and procurement teams may be less risky than new start up with less established procedures [1/2]  
 Territorial restrictions [1/2]  
 Size of company [1/2]  
 Nature of celebrity endorsing the product... [1]  
 type of celebrity may give an indication of lifestyle choices (e.g. athlete vs rock star vs reality TV star) [1/2]  
 perceived fame of celebrity will impact penetration and scale of any adverse damage [1/2]  
 history of negative publicity will impact likelihood of claim [1/2]  
 nationality / gender may give indication of lifestyle choices... [1/2]  
 however may be precluded as direct rating factors [1/2]

**Information requested on proposal form:**

|   |     |
|---|-----|
| Information used to assess factors listed above (or proxy factors where necessary)  | [1] |
| Company Details – Location, Size, Start-up date, number of employees, turnover (by location), subsidiaries, expected strategic changes during course of cover, history of damage during previous campaigns etc. | [1] |
| Product Details – Type, Current Penetration (sales information by location), projected impact of campaign (sales information by location), cost of campaign, endorsements, conditions for recall etc.           | [1] |
| Celebrity Details – Occupation, Marital status, previous work with company, other campaigns/endorsements, adverse media history (publically available) etc.   | [1] |
| Additional Coverage Details – length of campaign/cover, type of campaign (TV, Media etc.), contract details with celebrity (e.g. T&Cs), Deductible etc.   | [1] |
| Should be clear   | [½] |
| Not onerous to produce  | [½] |
| Not unreasonable to expect company to know  | [½] |
| Not unreasonably intrusive / confidential   | [½] |
| Should recognise that can do own research on a celebrity  | [1] |
| Any historic campaigns potentially in scope under claims made   | [1] |

**Policy Wording:**

|  |          |
|--|----------|
| Wording should clearly outline the coverage of the contract...   | [1]      |
| listing the specific cost of the marketing campaign and endorsements as well as the celebrity being used   | [½]      |
| PR expert should be named to avoid ambiguity   | [½]      |
| Definition of “tarnish” should be agreed...  | [1]      |
| as well as the threshold above which this would impact the campaign as otherwise even a small infraction could result in the full cost of the campaign / endorsement being payable | [½]      |
| Limits of cover should be clearly outlined...  | [1]      |
| such as time limits for cover (timing of any breach should be clearly articulated so issues occurring outside of coverage period are excluded)                                     | [½]      |
| Scope of recall defined  | [½]      |
| RDI / notification clauses   | [½]      |
| Underwriting of celeb on annual contracts  | [½]      |
| such as time limits for cover (timing of any breach should be clearly articulated so issues occurring outside of coverage period are excluded)                                     | [½]      |
| such as time limits for cover (timing of any breach should be clearly articulated so issues occurring outside of coverage period are excluded)                                     | [½]      |
| such as time limits for cover (timing of any breach should be clearly articulated so issues occurring outside of coverage period are excluded)                                     | [½]      |
| Exclusions should be identified...   | [1]      |
| such as knock on impacts on company's other products rather than just the product being advertised   | [½]      |
| or the used of certain types of celebrity (e.g. those with criminal convictions)   | [½]      |
|  | [Max 12] |

- (iv) The claim frequency should be low as the number of instances of this type of event is low compared to the number of celebrities [1]  
 and this will be reduced further as companies seek to select celebrity role models whose lifestyle and values are consistent with their brand image they wish to communicate. [1/2]  
 Potential losses will tend to be reported quickly as the insured company seeks to limit the potential damage to its own products and reputation arising from an emerging celebrity scandal [1]  
 as reporting the event as soon as possible enables the public relations company to start taking actions to mitigate the impact... [1/2]  
 and the nature of the insured event is such that the company may learn of the incident at the same time as the insured. [1/2]  
 There is no mention of limit or deductibles so it is assumed that the policy meets the full cost of the loss... [1/2]  
 but as the public relations firm is provided by the insurer this provides an opportunity to limit costs by agreeing a cost schedule in advance or fixed package prices... [1/2]  
 and the costs of the marketing campaign will have an upper limit equal to the cost expended... [1/2]  
 the cost and risk of product recall can also be mitigated by placing a limit on the form of the celebrity endorsement [1/2]  
 e.g. allow picture of celebrity on posters and shelving but not on the product packaging itself. [1/2]  
 There may be a trade-off between the cost of the public relations component and other costs... [1/2]  
 as increased expenditure on public relations may limit the financial damage arising from the event though this will depend on the particulars of the individual case. [1/2]  
 There may be potential for subrogation if the insurer can sue the celebrity or recover the fees paid to them. [1/2]  
 Mixture of lump sum and phased across the three types [1/2]  
*Other valid comment on the three different elements* [1/2]  
*Other valid comment on the three different elements* [1/2]  
 Event delay [1/2]  
 Accumulations - appropriate comment (e.g. across multiple campaigns) [1/2]  
 Volatility [1/2]  
 Reinsurance [1/2]  
 Disputes / fraud [1/2]  
 Claims handling expenses / legal fees high [1/2]  
 Multi currency [1/2]  
 May be number of nil claims as claims made [1/2]  
 [Max 6]

- (v) **Data**  
 As this is a new product there will be no historic loss development data to use in estimating reserves on new business. [1/2]  
 Few claims so no pricing feedback [1/2]  
 all very unique claims so will need claims input [1/2]  
 Lot of public domain info [1/2]



A small company may not have suitable data for similar types of products which it can use as a proxy. [½]  
It is an unusual product so there may not be many alternative data sources e.g. industry bodies, reinsurers. [½]  
It may be possible however, to get a rough idea of frequency and average costs from public domain information due to the public surrounding events. [½]  
The underwriters may be able to provide access to the data they used to price the product though it may be that they initial price is determined on subjective factors [½]

***Reserving methodology***

Statistical methods highly unlikely to be appropriate [1]  
Almost certainly will be aware of any events that have occurred as will be public knowledge [½]  
Claims should be able to assist with a view on cost impact of known events [½]  
A large part will be reimbursement of the costs of campaign that are fixed [½]  
Earning pattern would be built bottom up based on notification date / inception date / expiry date [½]  
Plan / pricing view could drive unearned assumptions unless there is a material reason to challenge these based on experience to date [½]

***Balance***

Given the short likely reporting delays and the publicity surrounds an event there would be minimal IBNR (or technically none as claims made) [½]  
The unexpired risk reserve will be high in the first year as the new policies written during the year will have higher portions of unearned risk the later they are written... [½]  
Unearned balance may be higher still if growing over course of the year [½]  
and there is no unearned risk being brought forward from the prior accounting period to offset the unearned risk being carried forward. [½]  
or much greater than any of the other reserve components [½]  
or somewhere in between, e.g. only a small element of public relations costs on a claim were incurred. [½]  
Some nil claim notifications may be held as IBNR [½]  
*Appropriate comment on the three components* [½]  
*Appropriate comment on the three components* [½]  
*Appropriate comment on the three components* [½]

[Max 6]

[Total Max 38]

- Part (i) Generic bookwork, most scored fairly well but some went off topic talking about risks after launch.
- Part (ii) Candidates generally did quite well generating some original ideas thinking about a completely unconventional product. Main weaknesses were confusion about the differences between moral hazard, fraud and anti-selection with some candidates using these terms inappropriately (even though the issues they were considering were relevant).
- Part (iii) Candidates again did relatively well on this question even though it required entirely original thinking about an unconventional product.
- Part (iv) A number of candidates had quite a limited focus and didn't really consider much more than frequency, severity and reporting / settlement delay. Very few candidates considered the three components of coverage and their different profiles.
- Part (v) Poorly answered. In the data section a number just listed out standard data items rather than tying them to the reserving exercise or thinking at all about the unusual nature of the product. In the reserving approach, many went through a very generic process rather than stopping to think about the specifics of the product and a pragmatic approach. Many candidates wrote almost nothing for the balance section or gave up quickly, perhaps due to time management issues at the end of the paper.

## **END OF EXAMINERS' REPORT**