

INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORTS

April 2020

Subject SA2 - Life Insurance

Specialist Applications

Introduction

The Examiners' Report is written by the Chief 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.

Mike Hammer
Chair of the Board of Examiners
July 2020

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

The aim of the Life Insurance Specialist Applications subject is to instil in the successful candidates the ability to apply knowledge of the life insurance environment and the principles of the actuarial practice of life insurance to practical situations for a life insurance company.

The Examiners' Report covers more points than would be expected to get full marks. This is so that alternative approaches to questions by different candidates can be accommodated. Whilst candidates are expected to show knowledge of the relevant content of the Core Reading, it is much more important in this exam to tailor answers and apply that knowledge to the specifics of the question than it is in earlier exams.

Candidates who make well-reasoned points, which are not in the marking schedule will receive credit where appropriate.

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

The exam had been set as a closed book exam, so the fact that it was made open book meant that candidates scored more highly on some parts (e.g. 3v) than would have been expected had the exam remained closed book. The pass mark has been increased to reflect this.

Well prepared candidates seemed able to make good attempts at most of the questions.

C. Pass Mark

The Pass Mark for this exam was 63.

354 candidates presented themselves and 180 passed.

Solutions

Q1

(i)

- Re-running the start year model ensures that the starting position of the analysis is consistent with the reported numbers. [½]
- This is especially necessary where there have been some opening adjustments... [½]
- ... to validate that those opening adjustments are in line with expectations [½]
- Re-running with the new longevity and expense assumptions shows the impact of changing the assumptions. [1]
- This could be used by analysts to assess any strengthening or weakening of the basis. [½]
- Or may be required for disclosures. [½]
- Rolling the model forward with actual returns gives the total economic variance (including economic assumption changes). [1]
- Again this may be used for disclosures to analysts. [½]
- Or to assess the adequacy of matching [½]
- Or to assess the adequacy of the default assumptions [½]
- The company would expect to see small profits from the release of margins, ... [½]
- ... and any large profits or losses may highlight an error in assumption setting, ... [½]
- ... or in the matching or allowance for defaults. [½]
- The step adding the new business provides the value of the new business written. [½]
- Adjusting the model for actual longevity and expenses will show the release of the margins... [1]
- ... and the impact of the difference between the actual and expected experience. [½]
- A difference may lead to a change in assumptions. [½]
- Or a large unexpected difference can highlight an error in the calculations, such as an input error, [½]
- The final step shows the financial impact of tax... [½]
- ... capital injections and dividends. [½]
- The 'unexplained' movement should be small. [½]
- Performing this analysis in the same order each year enables comparison... [½]
- ... and the ability to identify trends. [½]

[Total 13, maximum 6]

(ii)

- The new investment returns may not be accurate ... [1]
- ... due to the rolled forward assets being different to actual or the assets have changed. [½]
- The model may not model assets at the granularity at which they are on the balance sheet, and so the roll forward may not be accurate [½]
- Assets may have changed rating which may not be reflected in the model [½]

- The model may not know which assets have been sold or bought over the period [½]
- The model may not be able to accurately value assets with non-vanilla features [½]
- The timing of cash-flows in the model may differ to actual [½]
- The model may not capture actual defaults [½]
- Investment fees may be complex and difficult to model [½]
- [any reasonable examples up to a maximum of 2 marks]*
- New business modelling may not be as granular as the actual: [½]
 - Model points may be used as opposed to a full data set [½]
 - There could be a delay in investing premiums which is not captured by the model [½]
 - There may be a delay in reporting new business [½]
 - There may have been lapses in the cooling-off period [½]
- [any reasonable examples up to a maximum of 1 mark]*
- Actual to modelled longevity may be different due to the averaging of the experience via use of a table as opposed to a movement file. [1]
- Or the model may not capture the actual deaths and so there may be a skewed experience (e.g. average death values are higher than the average values overall) [1]
- The actual annuities paid may not be the same as those assumed in the model due to approximations in relation to timings of deaths (the model may assume they are even whereas, in reality, they may be concentrated. [½]
- Similarly, total modelled per policy expenses may be different to the actual ... [1]
- ... due to how the average is calculated versus how the policies appear in-force in the model. [½]

[Total 11½, maximum 5]

(iii)

- Calculate the % change in reserve for sample ages due to the change in longevity. [½]
- Compare this to the % change in the reserve. [½]
- Set expectations... [½]
- ...for example, if the sample age is lower than the average then the actual change would be expected to be lower *[any example]* [½]
- Or use sensitivities. [1]
- Or look at past changes and compare the relative changes to this time. [½]
- Consider changes in base mortality and mortality improvements separately and consider if impact of both looks sensible. [½]
- For new business, look at profit margins embedded in the pricing and... [½]
- ... use these along with premiums sold to estimate the NB profit. [½]
- Check the levels of new business premiums and reconcile against other sources. [½]
- Adjust for prudence in the reserves. [½]
- Look at NB profits in previous years and understand the differences. [½]

[Total 6½, maximum 3]

(iv)

- It could be that the model is missing some data altogether from start and end valuations. [½]
- It could be that the model has some formulae that are incorrect, but the movement in the error is not material. [½]
- It could be that there is an incorrect assumption, but the movement in the error is not material. [½]
- It could be that the data itself is incorrect (e.g. incorrect annuity, incorrect ages). [½]
- There may have been user error in both time periods. [½]
- Any other example. [½]

[Total 3, maximum 2]

(v)

It could be that the model is missing some data altogether from start and end valuations.

- Check the numbers from the model against the numbers in the admin system. [1]
- Check the annuities modelled in the year against the revenue account. [1]
- Any differences could highlight where some data is not being modelled. [½]
- Investigate any significant unusual outliers. [½]

It could be that the model has some formulae that are incorrect, but the movement in the error is not material.

- Check the model formulae against the original specification. [½]
- Independently replicate the results... [½]
- ...for specific model points [½]
- ... covering all the different attributes across the policies [½]
- ... for example male, female joint life, indexed [½]

It could be that there is an incorrect assumption, but the movement in the error is not material.

- Independently check all assumption inputs [½]

It could be that the data itself is incorrect (e.g. incorrect annuity, incorrect ages).

- Spot check the data against the policy documents. [½]
- Set up checks to test the data as it used. [½]

[Total 7, maximum 3]

(vi)

- Annuity business the BBA approach under IFRS 17 [½]
- IFRS 17 uses a reserve using best estimate assumptions [1]
- whereas the company's IFRS 4 basis uses prudence margins. [1]
- So for this part IFRS 17 < IFRS 4 [1]
- IFRS 17 uses a discount rate from observable market data, ... [½]

- ... whereas IFRS 4 uses asset yields allowing for defaults. [½]
- The current market rates are currently low... [½]
- ... so even with the allowance for defaults it is likely that for this part IFRS 17 > IFRS 4. [½]
- Given these are annuities, there are no differences due to unbundling. [½]
- There are also no differences due to offsetting of profitable and unprofitable contracts ... [½]
- ... since the products sold were profitable. [½]
- IFRS 17 has a RA similar to the Solvency II Risk Margin, representing the non-market risks. [½]
- If these are higher than the prudence margins,... [½]
- ... then it could make the IFRS 17 reserve > IFRS 4. [½]
- Under IFRS 17, there is likely to be a CSM since this is profitable business. [1]
- This will serve to increase the IFRS 17 liabilities. [1]
- The level of CSM at the valuation date will depend on:
 - The duration of the contract ... [½]
 - ... since the CSM will run off over time... [½]
 - ... and the strengthening of the longevity assumptions ... [½]
 - ... since these changes go through the CSM. [½]
- Interest rates are historically low ... [½]
- ... which means that the IFRS 4 reserves are likely to have strengthened. [½]
- The CSM does not absorb these strengthenings if the BBA is used. [½]
- On balance, given the prudence margins are small, it is likely that the IFRS 17 reserves are higher than the IFRS 4 reserves, but this will depend on many things. [½]
- For the business in force the impact on profits will depend on whether the total reserves are higher or lower under IFRS 17 or IFRS 4 [½]
- It is likely that IFRS 17 reserves are higher ... [½]
- ... so future profits will be higher... [½]
- ... as these reserves and CSM are released. [½]
- However if future new business is high, then future profits under IFRS 17 may be lower... [½]
- ... due to the fact that under IFRS 17 any day 1 gain will be eliminated via the CSM. [½]

[Total 17½, maximum 9]

(vii)

- The Variable Fee Approach (VFA) is likely to be adopted. [1½]
- Since a significant proportion of the cash flows vary in line with the value of a clearly defined pool of assets. [½]
- Cash flows are discounted at discount rate is calculated with reference to the pool of assets [1]
- There will be a risk adjustment similar to the Solvency II Risk Margin [½]

- There is a CSM to eliminate day one profit. [½]
- The CSM offsets the change in value of the BEL and RM due to assumption changes
... [½]
- ...and the CSM is unlocked at each future period to absorb the change in the value of
BEL and RA as a result of the change in the discount rate. [½]

[Total 5, maximum 3]

Q1(i) Most candidates scored well, with higher marks going to those candidates who commented on what might be learned from each step.

Very few candidates elaborated on why the results of the individual items may be useful to the company.

Q1(ii) This was reasonably well answered, with the higher marks going to candidates that identified the practical differences between the model and reality.

Q1 (iii) Very few candidates gave practical answers for how to produce a sense check.

Q1(v) whilst most candidates mentioned checking, very few considered independently replicating the answers or doing any detailed checks.

Q1(vi) This was reasonably well answered. Candidates that tailored the standard bookwork to the question scored well. For example, the question states that the products are profitable and so comments about profit/loss offsetting were not valid unless it was qualified by stating that they were loss making on an IFRS 17 basis. Many missed out on marks by not following through to say what the impact of the differences were on the liabilities and assets and therefore the profits

Q2

(i)

- The stress for the individual risk is applied to the assets and liabilities [½]
- Stress level is calibrated equivalent to a 99.5% VaR [½]
- The SCR is the difference between the net asset value in the unstressed scenario and the net asset value in the stressed scenario [½]
- The new asset value can be taken as assets less best estimate liabilities [½]

[Total 2, maximum 1]

(ii)

- Market risks:
 - Which stress within market risks depends on the assets invested in [½]
 - Likely that there are bonds backing the annuities [1]
 - And so interest rate... [½]
 - ...and spread risk will be significant... [½]
 - ... this will depend on how the spread is allowed for in the discount rate/matching adjustment. [½]
 - There may also be property investment backing the annuities and so this stress would also be key if so. [½]
 - There is likely to be exposure to equities ... [½]
 - ... through the unit linked product... [½]
 - ...and charges being fund based [½]
 - The significance of this depends on the size of the business [½]
 - There maybe some currency risk... [½]
 - ... but this is unlikely to be significant. [½]
- Insurance Risk
 - Longevity risk ... [1]
 - ... will be significant from the annuities... [½]
 - ...though this depends on the size of the annuity book [½]
 - Any reinsurance arrangements would also be factored in and could reduce the exposure and so capital requirements... [½]
 - ... but introduces counterparty risks. [½]
 - Expense risk... [½]
 - ... is likely to be significant [½]
 - With the unit linked risk being related to a mis-match between charges and expenses [½]
 - And annuities being the ongoing service cost compared to initial pricing assumptions [½]
 - Lapse will also be a risk on the unit linked business... [1]
 - ...a risk to the future income stream from charges [½]
 - Lapse won't be a risk on the annuities [½]
 - There is unlikely to be significant mortality or disability/morbidity... [½]
 - unless there are options/features on the products that introduce this risk [½]

- There maybe an allowance for catastrophe risk... [½]
- ... but, for these products, this is unlikely to be significant. [½]
- There will be some operational risk... [½]
 - [0.5 for any reasonable example] [½]
 - ... but the SCR is determined by a formula [½]
- There will then be diversification allowed for in the final capital position. [1]

[Total 18, maximum 10]

(iii)

- The regulator has concluded that the capital required through the standard formula calculation is not sufficient to cover the risks the company is exposed to [1]
- The regulator will have reached this conclusion through reviewing the company's solvency II submissions from the pillar III disclosures [½]
- This will have been through the Regular Supervisory Report (RSR), including the Quantitative Reporting Templates (QRTs) and ORSA [½]
- It could be that the profile of the business is different to that for which the standard formula stresses were intended. [½]
- For example, that the parameters for one of the stresses don't reflect a 99.5% stress for the specific assets the company holds [½]
- Another e.g. like longevity stress not being reflective of the actual population due to targeting specific professions [½]
- It may be that there are data quality issues... [½]
- ...and so the regulator believes additional prudence should be taken reflect the risk that policy data used in the calculations isn't correct [½]
- It may be that the quality of the ORSA itself is poor... [½]
- ...and the risks identified are not complete... [½]
- Or there has been poor judgement in assessing the overall risks exposed to [½]
- The quality of the risk management within the firm may be poor... [½]
- ...or the governance set up to oversee the management of risks is not strong [½]
- And so the regulator does not have confidence that all risks have been appropriately assessed [½]
- The add on may be to bring the SCR up to a similar level to the company's peer group. [½]
- It maybe that the Standard Formula needs to change, but has not yet done do... [½]
- ... for example, pandemic risk. [½]
- It maybe that additional information has come to light with regard the company. [½]

[Total 9½, maximum 5]

(iv)

- The new asset must be substantially different to the existing assets to justify its own module. [1]

- There may be a significant investment expected and so the capital impact of an inappropriate stress would be large [1/2]
- The existing modules may not appropriately reflect how this asset behaves under stress [1]
- What drives the change in value for this asset under stress could be different to the elements that are stressed under existing modules [1/2]
- The variables with this asset may not be covered by the existing stresses [1/2]
- It may be necessary to develop new correlations between the risks [1/2]
- The regulator may have requested it [1/2]
- *Any other reasonable examples, such as it having a different payment structure.* [1/2]

[Total 5, maximum 3]

(v)

- The company need to consider what an appropriate stress would be for this asset [1]
- The company may look for any information from benchmarking against what the industry and competitors are doing for this [1]
- They would consider if they have the internal expertise to develop this methodology [1/2]
- Or if they should look externally to a consultancy... [1]
- ...or at least seek input from the investment manager they use [1]
- The need to work out where the judgement is in assumptions... [1]
- ...to identify areas to potentially stress [1/2]
- And then use historic data or other sources to determine an appropriate stress value for these [1/2]
- They would consider different options and compare these [1/2]
- A comparison of the resulting capital should be done against any appropriate existing modules or even standard formula [1/2]
- There may be appropriate approximations in the methodology that could be made to simplify [1/2]
- They need to consider the cost of developing this... [1]
- ...and balance against the benefits or requirement to do so [1/2]
- The need to get approval from the regulator to use this methodology in their internal model [1]
- This will take time to gain and involve discussions in advance [1/2]
- The timeline should be considered for approval and factored into reporting plans [1/2]
- Any new methodology required to model the asset type needs to be documented... [1/2]
- ... and go through appropriate governance... [1/2]
- ... it will need appropriate testing... [1/2]
- ... to make sure the new model is fit for purpose. [1/2]
- If the new model is complex, then this may impact run-times... [1/2]

- ... and so may impact reporting deadlines. [½]

[Total 14½, maximum 7]

(vi)

- APS X2 requires consideration of a review of any actuarial work undertaken [1]
- This includes an independent peer review [½]
- It is likely that the methodology development will involve an actuary undertaking work in their capacity as a person with actuarial skills... [½]
- ...and the results from the methodology will likely be relied on by others in the company to inform decisions and therefore APS X2 should be considered [½]
- If the methodology is developed internally then a peer review may take place within the actuarial function or by the second line Risk function [½]
- It is likely that the company already has a process in place for independent review of methodologies [½]
- The review should focus on where judgement and assumptions are made [½]
- If an external consultancy is used to develop the methodology, then they will likely consider a peer review as they are the ones doing the work [½]
- However, the company will still want to understand the methodology and judgements and so will likely also review to ensure they are comfortable with the conclusions [½]

[Total 5, maximum 3]

Q2(ii) This was well answered, with higher marks going to those candidates that tailored their answer to the question specifics. Some candidates did not realise that the question was about the standard formula and so went into detail on operational risk.

Q2(iii) Most students did well on this question part, with those doing better covering more detail on areas such as poor judgement and risk management/governance.

Q2(iv) This was reasonably well answered but some students misread the question, and gave answers for moving to an internal model as opposed to just this asset class being included.

Q2(v) The highest marks went to those answers that considered the difficulties from the view point of both the actuarial side and the practical side.

3

(i)

- Taxed on profits... [½]
- ... broadly speaking, taxed on the excess of... [½]
- ... the change in value of assets... [½]
- ... less the change in value of the liabilities. [½]
- Taxed on the investment income/gains less... [½]
- ... operating expenses. [½]
- Tax is payable on the premium received. [½]

[Total 3½, maximum 3]

(ii)

- Tax on profits
 - This is likely to be suitable. [1]
 - Although, the product may produce losses in early years... [½]
 - ... so the tax authorities may defer tax relief on initial expenses... [½]
 - ... if not already deferred in the accounting treatment... [½]
 - ... to even out taxable profits. [½]
 - But this increases complexity for the insurance company. [½]
- “I-E”
 - This approach is unlikely to be suitable. [½]
 - The reserves are likely to be relatively low... [½]
 - ... and so investment income/gains will be low... [½]
 - ... relative to the operating expenses... [½]
 - ... and so the taxable amount will be low... [½]
 - ... or often negative... [1]
 - ... which would not be desirable from the perspective of the tax authorities. [1]
 - If this were the taxation basis, then Company A would not be able to compete... [½]
 - ... with companies that have “XSI” products... [½]
 - ... as these companies would be able to allow for tax relief on their term assurance expenses in pricing. [1]
 - This may be complex for the insurance company. [½]
- Tax on premiums
 - This approach could be argued as either suitable or unsuitable. [½]
 - This is simple... [1]
 - ... for both the insurance company and the tax authorities. [½]
 - All companies offering this product would be treated equally from a tax perspective. [½]
 - The taxable amount is predictable ... [½]
 - ... for both the insurance company and the tax authorities. [½]
 - The tax will be passed onto the policyholder through higher premiums... [½]
 - ... which might result in lower sales volumes... [½]

- ... and so lower profits for the company. [½]
- In all three cases, the impact on the policyholder will depend on how the benefits are taxed when received. [½]

[Total 16, maximum 5]

(iii)

Advantages

- It is a simple product [1]
- So could easily be administered in-house... [½]
- ... or there would be numerous opportunities to outsource administration... [½]
- ... at a competitive price... [½]
- ... and so development costs may be lower than for other product types. [½]
- The product has a clear potential customer need... [½]
- ... that is easy to explain... [½]
- ... making it easier to market... [½]
- ... and to build the brand. [½]
- There are many different distribution methods that would be appropriate for this product... [1]
- ... depending on the target market. [½]
- Financial advisors would be appropriate for high net worth individuals or key man [½]
- Direct marketing such as via the internet or telesales [½]
- ... would be appropriate for more mass market. [½]
- The product could, more easily, be tailored towards the target market, for example, with riders. [½]
- Technical skills are plentiful in the market... [½]
- ... including underwriting skills. [½]
- So such experts could be hired... [½]
- ... or obtained via consultants... [½]
- ... or reinsurers. [1]
- The latter would be appropriate as reinsurance would help manage the risk. [1]
- Obtaining such reinsurance should be relatively straightforward. [½]
- If the market is very price competitive (*could be described as a disadvantage also*) ... [1]
- ... a new entrant might be able to identify niche markets to exploit (*could be described as a disadvantage also*). [½]
- The product may not need much capital. [½]
- Any example why, such as Solvency II reporting basis. [½]
- There may be tax advantages to choosing this product to launch. [½]
- Any example why. [½]

Disadvantages

- The market is competitive... [½]

- ... it may be difficult to compete against larger players in the market. [1]
- Lack of expertise... [1]
- ... and a lack of data... [1]
- ... may mean that pricing ... [½]
- ... and/or underwriting... [½]
- ... is not appropriate. [½]
- This may lead to lower profits than expected. [1]
- Low volumes... [½]
- ... may mean claim volumes are volatile... [1]
- ...leading to uncertain profits... [½]
- ... and may mean the company cannot cover its costs. [½]
- If successful and volumes are high... [½]
- ... then more capital may be needed... [1]
- ... and may impact service standards,... [½]
- ...reputation. [½]
- The company is very exposed to mortality risk... [½]
- ... and anti-selection. [½]
- The company is exposed to losses on early lapse [½]
- Readily available market data may not be applicable to the planned target market. [½]
- As it is a new company, setting up the systems may be harder than expected... [½]
- ... so set up costs may be higher than expected. [½]
- The capital requirements may be high... [½]
- *Any example: solvency reporting regime, high set up costs* [½]
- There may be tax disadvantages to choosing this product to launch. [½]
- *Any example why.* [½]

[Total 32½, maximum 12]

(iv)

- In the UK, all business is BLAGAB business, unless it is a non-BLAGAB category [1]
- Non-BLAGAB categories are:
 - Pension business [½]
 - ISA business [½]
 - child trust fund business [½]
 - PHI [½]
 - OLAB [½]
 - Post 1/1/2013 protection business [½]
 - life reinsurance business [½]
- These categories are carefully defined. [½]
- So Company A will need to consider whether the proposed product falls into any of these categories. [½]
- Company A may seek legal... [½]

- ... or tax advice. [½]

[Total 6½, maximum 3]

(v)

- "I" = $50+30+70 = 150$ [½]
- "I-E" = $150 - 60 = 90$ [½]
- shareholders' share = 42 [½]
- policyholders' share = $90 - 42$ [½]
- = 48 [½]
- Tax on shareholders' share = $42 \times 19\%$ [½]
- = 7.98 [½]
- Tax on policyholders' share = $48 \times 20\%$ [½]
- = 9.6 [½]
- total tax = $7.98 + 9.60$ [½]
- = 17.58 [1]

[Total 6]

(vi)

- The investment policyholders of Company A being transferred. [1]
- The term assurance policyholders of Company A that are not being transferred. [1]
- The policyholders of Company B... [1]
- ... separately, any with-profits policyholders in company B. [½]

[Total 3½, maximum 3]

(vii)

- The product does not fit with the company's strategy. [1]
- It has not achieved sufficient economies of scale... [½]
- ... to make the product profitable... [1]
- ... and so has not achieved the shareholders' profit criteria... [1]
- The target market may have been different to that of the term assurance product ... [½]
- ... and so different distribution methods may have been necessary... [½]
- ... increasing the set up costs. [½]
- Company A may have concluded that it did not have the expertise to meet the needs of the target market. [½]
- It may not, therefore, been able to compete effectively in this market. [1]
- The product may have required more capital... [1]
- ... any example of why capital may be needed ... [½]
- ... than the Company had or was prepared to hold... [½]
- ... depending on any guarantees that were offered with the product. [½]
- The regulator may require the company to hold more capital for this product. [½]
- As a new company, key processes may have been outsourced... [½]

- ... such as administration, investment management, unit pricing... (any suitable example) [½]
- ... this relationship may not have worked as expected... [½]
- ... or internal processes may have proved harder than expected... [½]
- ... and so company A may not have been able to deliver the customer experience that it aspired to... [1]
- ... leading to customer complaints... [½]
- ... and additional costs... [½]
- ... and affecting the company's reputation... [1]
- ... and sales... [½]
- ... and regulator sanction. [½]
- If the company did not achieve sufficient volumes, the tax basis may not have been as expected in pricing... [½]
- ... for example, "I" may not have exceeded "E". [½]
- The Regulator has required the transfer. [½]
- The price offered by Company B may be very attractive... [½]
- ... as Company B is able to exploit arbitrage possibilities... [½]
- ... or is willing to pay for goodwill/brand. [½]
- Company A may be anticipating some future change (e.g. regulatory/tax/accounting) that would make the product undesirable to Company A. [½]

[Total 19, maximum 8]

Q3(i) Many well prepared students got full marks for this question.

Q3(ii) Those who scored well on this question part discussed the merits of each approach in turn, some only considered one method and so lost out on marks.

Q3(iii) Those that clearly set out their solutions as advantages and disadvantages scored well. Some points could be seen as either an advantage or a disadvantage. Marks were awarded either way if appropriately argued.

Q3(v) As stated above, this was answered better than expected, probably because of the open book nature of the exam.

Q3(vii) Candidates that approached this as the opposite of considerations when launching a new product scored well.

END OF MARKING SCHEDULE