Examiner's Answers

Note: Some of the answers that follow are fuller and more comprehensive than would be expected from a well-prepared candidate. They have been written in this way to aid teaching, study and revision for tutors and candidates alike.

These Examiner’s answers should be reviewed alongside the question paper for this examination which is now available on the CIMA website at www.cimaglobal.com/p3papers

The Post Exam Guide for this examination, which includes the marking guide for each question, will be published on the CIMA website by early February at www.cimaglobal.com/P3PEGS

SECTION A

Answer to Question One

Rationale
This question is based on both the common pre-seen scenario and the unseen scenario. Part (a) deals with the risks associated with manufacturing products that may harm a minority of consumers if incorrectly labelled or unintentionally contaminated. Part (b) deals with the hedging of commodity costs. Part (c) deals with the need to enforce a sound control environment.

Part (a) draws mainly on section B of the syllabus (Risk and Internal Control).
Part (b) draws mainly on section D (Management of Financial Risk).
Part (c) draws mainly on section C (Audit and Audit of Control Systems).
Suggested Approach

Part (a) describes the risks associated with peanut allergies. The company uses these as an ingredient in popular products, but also sells products that do not contain nuts. Candidates should consider the risks arising from the manufacture and sale of a product that can cause serious allergic reactions in a significant minority of consumers. This creates challenges concerning manufacturing, labelling and marketing.

Part (b) requires some thought about the hedging of a commodity price, which has exactly the same challenges and potential solutions as hedging currency movements. The question deals with both the use of financial instruments and the use of natural hedging.

Part (c) asks for a discussion of the challenges for management when they introduce a change to their procedures that proves to be unpopular. Management cannot afford to tolerate compliance failures because they will quickly lose the ability to manage the company.

(a) (i)

One response would be to print a clear warning in the ingredients panel of the box to indicate that the factory uses peanuts in its manufacturing process even though the product itself does not contain this ingredient. It could be made clear that the company takes great care to avoid contamination, but that there can be no guarantee that this will always be effective. That would warn customers who were particularly sensitive to this condition to take care and perhaps avoid Y’s products altogether. This would also protect Y in the event of a reaction because anyone with a food allergy should take care to read the ingredients panel.

All manufacturing staff should be trained on the dangers associated with cross-contamination as part of their induction. Staff should be properly trained in removing any traces of peanuts from their clothing and from any equipment that they have been operating. If they suspect that there may have been some contamination of a product that is not supposed to contain peanuts then they should be encouraged to report that so that the company can either test or scrap potentially contaminated batches. The company should not attempt to assign blame or to penalise staff responsible for such scrappage so that they are not discouraged from making a report.

Production should be scheduled to minimise the risks of contamination. Ideally, there would be two production lines, one for products that contain peanuts and another for products that do not, with each member of staff involved in one production line or the other. If that is not possible then the equipment should be set up to make a large batch of products that contain nuts, followed by a deep cleaning before switching to nut-free products.

The fewer cycles of switching to nut-free products the fewer the chances of cross-contamination because of errors in cleaning. Also, staff can be instructed to take greater care when working with nut-free ingredients.

All stocks of peanuts and any raw materials that contain peanuts should be kept in a separate area, with signs indicating their content. Staff should not be permitted to withdraw anything from this area without having a specific instruction to do so. That would reduce the risk of accidentally adding peanuts to a product that is not supposed to contain them. It would also reduce the risk of contamination of materials while in storage.
(ii)

The most immediate cost of keeping the risks under review is the time and effort that will be involved. Product safety is clearly an important issue, but this is not an area that is likely to change significantly and so it is unlikely that the risks will change or that new risks will emerge.

There is a danger that a constant review will start to become very superficial and ineffective. If those responsible for the review do not expect to find anything then they may become a little dismissive of potential risks.

The upside to keeping this risk under review is that it could change from time to time. For example, suppliers could add peanuts to their products. The fact that there is a review process will mean that staff are aware of the method of reporting any fresh concerns.

No matter how careful Y is, there is always a slight risk of an incident. The fact that there is an ongoing review process means that the company can defend itself by claiming to have taken all reasonable precautions.

(b) (i)

The first difficulty is in deciding whether there is a material risk. The fact that cocoa prices have been volatile in the past suggests that they will continue to be so in the future. There is an associated question of whether the volatility involves any material cost to the company. If prices vary about a fairly consistent norm then it may be possible to work on the basis of this norm. In that case the company will make smaller profits when cocoa prices are high, but larger profits when they are low. It may also be possible to vary selling prices in line with movements on input costs and so the risk can be passed onto customers.

A second difficulty arises from predicting competitors' behaviour. If competitors hedge so that they do not need to bear the impact of any increase in cocoa prices then Y may be forced to hedge in order to remain competitive. Conversely, hedging in isolation may lead to Y bearing a higher cost than competitors because it cannot benefit from any future decrease in cocoa prices.

The evaluation is further complicated by the fact that hedging is essentially a zero-sum game. The counterparties to hedging agreements will price their instruments accordingly. In the long term hedging is likely to prove expensive because these counterparties will also aim to make a profit from bearing risk.

Finally, the directors need to understand the shareholders' interests. Shareholders may find it difficult to articulate their attitudes toward risk. It is difficult for them to be clear in informing the directors as to how much cost they are prepared to bear in order to avoid a risk. The risks themselves may be difficult to identify in any case. A diversified shareholder will regard a movement in cocoa prices as an unsystematic risk that can be disregarded.
(ii)

The basic issue here is that Y will pay a fixed amount in expenses for an uncertain amount of cocoa. Y runs the risk that yields will be insufficient for the company to obtain all of the cocoa that it requires for production. Y could include more farms to ensure that the crops are sufficient for its needs and sell any surplus. That could be good in terms of public relations because the cocoa price will be depressed by good yields and Y will have ensured that the farmers will have had a living wage for growing the crop, although the return from such sales is likely to be depressed.

If the farms generate insufficient cocoa because of problems with weather or pests then Y can still buy additional cocoa on the open market. The likelihood of that happening will be reduced by the fact that Y will be using a number of different farms, located in at least two different countries. Hopefully, weather conditions or other problems that affect farms in Africa will not affect farms in Indonesia. Also, the overall cost of cocoa will be reduced because Y will still be obtaining most of its requirements from the farms at a fixed cost for labour and so on.

Y may suffer agency-type problems from this arrangement. The farmers have a guaranteed return regardless of their yields. They may not feel that there is a great incentive to maximise their yields and may even decide to economise on the running of their farms in order to make a larger profit from this arrangement.

Y could obtain a public relations benefit from this arrangement. The company is effectively bearing a risk that would otherwise have been imposed on farmers in developing countries. Y could claim that its products have been manufactured using ingredients that were purchased at a fair price.

Y may also risk facing accusations of exploitation even though it is guaranteeing the farmers a reasonable wage. The farmers are unlikely to enjoy lifestyles that would appear acceptable to consumers in the developed world. It would, therefore, be easy for a journalist to portray Y as exploiting farmers, particularly if the cost of cocoa peaks and Y’s farmers do not benefit from that because Y has guaranteed them a reward based on hours worked rather than the value of their crop.

Y will suffer the risks associated with entering into any leasing agreement. The company will be signing a contract to lease the farms and so its gearing ratio could increase accordingly.

(c)
The basic response should be that it is unacceptable for store managers to disregard formal systems and procedures. The control environment will be undermined if the board is not viewed as the authority on systems.

In the short term the internal audit department should advise the three store managers who are in breach that they must implement the new system. There should be a “light touch” follow-up to those stores to ensure that the agreed changes have been made.

Y’s senior management should email all store managers to remind them that the new system should be implemented as specified. The stores that are in breach should not be named because doing so would embarrass the store managers involved. It is, however, important to send out a message that the changes were introduced by senior management and cannot be regarded as optional. All managers should be asked to acknowledge that they have introduced the changes in order to drive home the message that they do not have any discretion in the matter.
The board should consider the possibility that the new systems are not as cost-effective as intended. Having established the principle that it is a board decision, the directors should commission an exercise to consult a number of store managers to identify the problems created by the new system. It may be possible to change the system further so that the control objectives are met without the associated inconvenience for staff. The consultation exercise will demonstrate a willingness to listen, even if it proves impossible to address the managers’ concerns.
SECTION B

Answer to Question Two

**Rationale**
The question deals with the risks arising from the outsourcing of an information system to a third party. The question discusses both the importance of a clear service level agreement and the ethical concerns associated with failing to adhere to the requirements set out in that agreement.
Part (a) draws on section E (Risk and Control in Information Systems).
Part (b) draws on section C (Audit and Audit of Control Systems).

**Suggested Approach**
Part (a) asks candidates to consider the risks arising from relying upon outsourced IT systems.
Part (b) asks candidates to consider the ethical issues arising from the discovery that the entity is misleading its clients with respect to the standard of service being provided.

(a) (i)
The SLA defines a relationship that is vitally important to both parties. Clients are entrusting critical business systems to U and must ensure that U will discharge this responsibility as carefully as they would themselves. The SLA provides a clear and explicit commitment that will define the quality of the work that U will undertake. The SLA document will provide evidence that the client has conducted an adequate due diligence investigation of U. It may go some way toward reassuring external auditors that the systems are well controlled.

The SLA will also protect U from unreasonable claims. In the event that a client has a complaint, U can ask for clarification as to which aspect of the SLA is in breach. In the event that the SLA has been implemented in full, U can argue that it has fulfilled its obligations and that the client’s complaint is unfounded.

The process of negotiating and clarifying the SLA will force both parties to communicate their expectations in very specific terms. The SLA will give specific assurances concerning the security of data, the quality of systems and the environmental controls that will be in operation. If the client does not believe that the assurances offered by the SLA are sufficient then the issue can be negotiated and settled before responsibility is transferred. This may prevent a costly misunderstanding that could harm both parties if a client’s records are compromised and that leads to a complaint against U.
(ii)

The SLA will state that U is capable of maintaining the system even in the event of a breakdown at its primary data processing centre. That commitment will specify that the recovery site has both the hardware and software necessary to transfer processing without interruption. As things stand, the recovery site is not licensed to run the software and will either have to delay processing while a licence is being negotiated or it will have to run the software illegally.

The SLA will specify that all data will be processed on licensed software. Unlicensed copies may have been corrupted in order to circumvent copy protection and the accuracy of the resulting data files may have been compromised. Also, the adverse publicity associated with running unlicensed software can undermine an entity’s reputation for integrity.

The SLA will also make specific assurances about the background of operations staff. U’s employees will have access to sensitive and confidential information, such as customer contact details and their banking information. That information will also have a commercial value to the clients’ competitors, which may be able to use it to entice customers away from their existing energy suppliers. U will almost certainly have to commit itself to making detailed background checks of all new staff, including checking that none have been convicted of crimes involving dishonesty. The fact that this has been overlooked may suggest that U has been lax over other checks, such as checking technical qualifications and taking up references to ensure that all members of staff are properly qualified.

(b) The directors may not be members of CIMA, but CIMA’s ethical principles are based on some universally accepted principles.

The willingness to run unlicensed software is a breach of the principle of professional behaviour. Using unlicensed software would be a conscious breach of the law governing copyright and intellectual property rights. We would risk discrediting the company and, by implication, our clients by implicating them (albeit unwittingly) in this act.

The use of unlicensed software would also breach the principle of integrity. It is dishonest, both to use the software without permission and to imply to clients that a full backup facility is available at all times.

The willingness to continue the employment of the employee with a criminal conviction for fraud, in breach of the SLA’s commitment to clients breaches the principle of objectivity. We should not deceive stakeholders even if we are doing so by omission of a material fact about a past error rather than a deliberate decision to mislead.

The failure to adequately vet the new employees also implies a breach of professional competence and due care. As directors, it is perfectly acceptable to delegate tasks to others, but you always remain responsible. This situation has arisen because of a corporate failure to implement an important check.
Answer to Question Three

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<th>Rationale</th>
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<td>Question 3 deals with a growing business that has to be reorganised in order to permit more effective control. Part (a) and (b) draw on section A (Management and Control Systems).</td>
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<td>Part (a) requires the creation of a more practical corporate structure for an entity that has grown from a sole trader to a size that requires some sort of divisional structure. The question offers a number of potential structures and ask for an opinion on each. Part (b) requires a discussion of the problems that will arise from the implementation of these changes.</td>
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(a) Approach 1 has the advantage of focussing on the key areas of expertise offered by the consultancy. Each department will be a “centre of excellence” and staff can interact and share knowledge and experience.

Future recruitment of professional staff can be focussed on maintaining an adequate balance in terms of the skills and services offered. Graduate entrants will have a clear understanding of their future career direction.

Clients may be a little concerned about confidentiality. The consultants who advise on, say, merchandising in one client’s stores will be aware of that client’s plans when they are assigned to work on a competing store. Even if they are careful never to make any explicit statements about one client to another, the knowledge gained may assist clients to compete with one another.

Approach 2 provides a greater focus on the client’s needs. The head of department will be able to develop a much closer relationship with the client and be aware of ways in which the consultancy may be able to assist.

This structure may be more adaptable when a client approaches the consultancy with a problem that does not have a specific objective, such as a store that has disappointing sales. An interdisciplinary team may be better equipped to define the terms of the required investigation and to offer an integrated solution.

This approach will also provide a clearer direction for experienced retailers, whose contribution is based on having been involved in retail management.

There may be inefficiencies if specialist staff are under-employed in certain departments. For example, a client may have infrequent need of operations support and so the IT specialists in that department may have to be used on other types of project or seconded to other departments.

Approach 3 could maximise flexibility. Project teams can be constructed to meet client needs and can cross the disciplinary boundaries. The lead consultants will develop skills in project definition and project management.

This approach could lead to dysfunctional behaviour. Lead consultants may be unwilling to use the full complement of consultants who are available because of their position as profit centres. Staff may find themselves either under-employed or forced to work under undue pressure because of artificial budget constraints.

Staff may also find that they do not develop good working relationships with their colleagues because they are constantly moving from one team to another.
(b) Mark needs to decide on the extent to which the interests of the newly appointed heads of department or lead consultants will coincide with his own. At present, Mark has a direct interest in the efficient management of the business and in the maximisation of profit. The newly appointed heads of department or lead consultants will not necessarily be as motivated because they will essentially be paid employees. They may not be prepared to work as hard as Mark did and they may be more interested in promoting their own departments than in working towards the overall profitability of the business.

Mark has to consider the impact of these changes on staff motivation. The selection of the head/lead consultants could lead to some disappointment or even demotivation of staff who believe that they should have had these senior positions. At present, the hierarchy is less clear-cut and so staff are not actively engaged in competition for these roles.

Mark will have to ensure that the costing system does not cause dysfunctional behaviour. At present, Mark need not be concerned by notional costs such as consultants’ hourly charge out rates, but establishing profit centres will draw attention to those figures. Heads of department or lead consultants will view these costs as a potential basis for the evaluation of their performance.

Mark should consider the fact that all three of the proposed new structures may put the promoted consultants in competition with one another. Approaches 1 and 2 will require decisions to be made as to the allocation of consultants to departments and approach 3 will create constant competition for the best consultants. That could lead to ill feeling and debate between the newly promoted decision makers.

Finally, Mark needs to consider whether it will make a huge difference that clients are likely to see less of Mark himself. There is a danger that some clients will be unwilling to see Mark delegate the management of their business to senior colleagues. They may regard it as a significant change and they may decide to take their business elsewhere.
Answer to Question Four

**Rationale**
The first part of the question deals with the measurement of volatility in exchange rates.
The second part deals with the management of the treasury function so that the entity cannot be exposed to exchange rate fluctuations.
Part (a) draws on section D *(Management of Financial Risk)*
Part (b) draws on section B *(Risk and Internal Control)*

**Suggested Approach**
Part (a) asks candidates to consider the relative merits of predicting exchange rate movements using value at risk and the fundamental analysis of scenarios. Either approach has some value, but neither can be claimed to be a perfect predictor of the future.
Part (b) requires a discussion of the controls that might be implemented over the treasury function. That creates some dilemmas because the treasurer must be free to act quickly in order to manage trading positions.

(a) (i)
The position is worth G$6m x 3.100 = F$18.600m.
The daily volatility is 1.2% = F$18.600 x 1.2% = F$0.2232m.
The one day 95% value at risk = F$0.2232 x 1.645 = F$0.3672m.
The 56-day volatility = \sqrt{56} x F$0.3672 = F$2.7479m.

(ii) The scenario-planning suggested by the professor indicates that future events can be anticipated that suggest:
- a potential gain on the position of (G$6.000m x 3.400) – (G$6.000m x 3.000) = F$2.4m.
- and a potential loss of (G$6.000m x 2.500) – (G$6.000m x 3.000) = F$3.0m.

These gains and losses are based on the difference between the forward rate on the instrument and the predicted cost of obtaining the G$6m at spot.

(iii) The VaR statistic implies a maximum loss based on historical data concerning volatility. The statistic is widely used in practice and so it must be regarded as having some legitimacy, but the statistic is not necessarily reflective of future gains and losses. Exchange rates can be affected by future events that may be unforeseen or that may bear little relevance to past trends.

The professor’s scenarios are based on specific events that may or may not occur and may not turn out as indicated, but they have the advantage of capturing information that is essentially ignored by VaR.

It could be argued that F’s board should use both sets of figures, and any other sources such as the rate implied by the forward rates as a basis for establishing how the position is likely to play out, if only for the sake of legitimacy.
(b) (i) The treasurer has exposed F to an unacceptable risk, regardless of whether that risk generates an upside. The basic principle here is that it has been decided that the company’s expertise lies in manufacturing and not in currency speculation. Such a decision is a matter for the board and it is unacceptable for a member of the management team to overrule the board in this way. It is a basic fact that irresponsible and reckless behaviour does not always result in an adverse outcome.

We should consider the possibility of bad publicity arising from the fact of this “rogue trader” phenomenon and we may decide to use the outcome as an excuse to take no action. It could be argued that the share price will be depressed by the discovery of these events because they would cast some doubt on F’s control environment.

In terms of public sympathy, the treasurer’s dismissal would be likely to be publicised differently if the speculation turns out to have been justified by a gain. Newspaper editors may decide to write the story on the basis that the treasurer had acted in good faith and been punished unfairly if she is dismissed and the company subsequently earns a profit from her skills.

(ii) The basic control here is segregation of duties. F’s treasurer should be supervised by someone such as the CFO.

There should be a clearly articulated hedging strategy, such as the suggestion in the scenario that F’s treasurer should buy all large currency requirements forward.

The treasurer should establish the need to buy derivatives by considering both actual orders placed and any that are likely to result in payments within the foreseeable future. That should be documented using information provided by the buying department and from the purchase ledger. The treasurer’s proposed forward purchases should then be reviewed by the CFO before the contract is placed.

The actual purchase should be left to somebody else, such as the CFO’s personal assistant or the company cashier. The organisations that sell F its derivatives should be instructed to accept instructions only from this designated person.

Currency gains and losses should be tracked carefully and agreed back to the authorised positions. That would not prevent unauthorised positions from being taken, but it could highlight any unauthorised positions that had been completed and so would deter the exploitation of any loopholes.