Answer to Question One

(a)

(i) There are several specific sources of risk that could affect F plc's reputation:

Press coverage

Likelihood: The story has already been reported widely in the press. The probability that coverage will continue is high because there is a significant human interest in the event. The press frequently runs prominent stories on the harm that could be associated with even remote possibility of illness caused by food.

Impact: The impact of such reporting can be significant. For example, many consumers stopped eating poultry because of concerns about bird flu. The fact that the victims were elderly and housebound will make them appear to be more vulnerable and that will heighten the public's concern that F plc behaved recklessly in selling a dangerous product.

Regulatory response

Likelihood: There is a high probability that the government inspectors responsible for enforcing this legislation will feel compelled to investigate the Meals Division. The regulators will be under pressure to announce that an investigation is under way.

Impact: This will be significant. If the results of the investigation exonerate F plc then it is unlikely that the press will publicise them to any great extent because such a finding is not particularly newsworthy. The public will not necessarily believe that the Meals Division's products are safe even if the findings are supportive.

Legal response

Likelihood: There is a low probability that F plc will be subject to criminal or civil proceedings. There is unlikely to be sufficient evidence (even if F plc was guilty) to prove criminal negligence and bring a case to court. It is unlikely that the victims will have the necessary resources to bring a civil action against the company.

Impact: Legal action will have a significant impact. If legal action is taken in either the criminal or the civil courts then F plc's reputation will be further damaged because the public will believe that there must be a case to answer. The case will present arguments in public that indicate hygiene problems with F plc's
manufacturing process and that will reinforce the concerns. If F plc loses the case then it will be a matter of public record that the company was negligent. If F plc wins the case then the public may believe that the company could simply afford better legal representation and that its innocence was unproven.

**Effect on all products**

| Likelihood | The public are unlikely to associate this case with the Meals Division in isolation. It is likely that the damage will affect F plc’s entire product range. |
| Impact     | This will be significant. Consumers may be deterred from buying anything manufactured by any of F plc’s divisions. |

(ii) **All meat products contain these bacteria**

F plc’s reputation is unlikely to be restored by the admission that its products are contaminated with harmful bacteria. Even if that is a scientific fact, it will simply create the impression in customers’ minds that F plc’s products are liable to cause illness unless they are handled carefully. The fact that other manufacturers have higher concentrations of bacteria may be true, but none of them have been implicated in this scare. It will be easy for F plc’s competition to mount a public relations campaign to invalidate this defence and to win some of F plc’s market share. Stating that the law relating to food hygiene has not been breached will look as if F plc is hiding behind a technicality to conceal the truth.

**The charity was negligent in preparing the meals**

F plc will struggle to win the public’s sympathy if it defends itself by attacking a charity. The public is generally sympathetic to charities and this one operates in a visible way that the public can relate to. Stating that the charity staff who heated the meals caused the disaster will look like a major company attempting to shift the blame for its dangerous product on to individuals who cannot defend themselves. The defence also highlights the fact that the product is potentially harmful unless it is prepared carefully and that will create further doubts in the minds of customers.

(b)

(i) It is highly unlikely that F plc will suffer any serious damage if this recipe is obtained by a competitor. Customers might enjoy the taste of this pie, but the brand is well established and is associated with the flavour. If a competitor does manufacture an identical pie then the advertising costs of launching it will be significant and that is a sufficient barrier to entry to protect F plc’s position.

If F plc can demonstrate that the recipe has been stolen then the competitor will suffer enormous bad publicity.

The board is almost certain that competitors can analyse the chemical constitution of F plc’s gravy and can made an educated guess as to how it is made. They could probably make a close substitute to the spice and herb mix without having the actual recipe. The only benefit that F plc really enjoys is the mystique associated with the “secret family recipe”.

**Examiner’s note:** These arguments present one possible conclusion (that the loss of the recipe would not be particularly serious). It is possible to present and justify the opposite argument.

(ii) Both of the employees who know the recipe should be asked to sign a non-disclosure agreement. That would not necessarily prevent either of them from telling a competitor about the recipe, but it could deter them from doing so.

To reduce the risk of either of them leaving the company and taking this information with them, both should be given excellent terms of service. Neither should be given any reason to wish to move to a competitor. That should not be difficult because both appear to be long-serving and loyal members of the company.
To prevent either from committing the recipe to paper, F plc should have them write out a single copy of the recipe for deposit in a bank safety deposit box. That way there will be no reason for there to be a more accessible copy that might be discovered or stolen.

(c)

(i) This assertion is difficult to evaluate because there is no clear answer. The divisional management accountant appears to be concerned with pursuing the company’s best interests and does not appear to have any sinister motives. On the other hand, it is generally understood that the internal audit function ought to be able to operate freely without interference from line managers.

Internal audit is fundamentally answerable to the board. In that sense, it would undermine the internal audit department’s independence if middle managers could comment on the audit priorities.

In this case, however, it would appear that the divisional management accountant is asking for some support and assistance. There appears to be some evidence that there is a weakness in the system that requires some attention. The divisional management accountant is requesting that the internal audit department evaluates the risks and makes recommendations.

There is nothing in this case to indicate that the divisional management accountant is attempting to divert or misdirect the internal auditor’s attention. In fact, the head of internal audit appears to be obstructive and inflexible. The audit programme for the next few months could be amended to allow for some attention to be paid to serious matters arising in the system.

On balance, it would appear that the divisional management accountant’s comment was justified and should be considered.

(ii) The head of internal audit’s assertion is understandable, given that it is common for the external audit to make heavy use of the work undertaken by internal audit and also to seek the internal audit department’s assistance during the evidence collection phase of the external audit. The external auditor is, however, unlikely to reciprocate and provide the internal audit department with information or support.

The external auditor’s duties are defined by statute. The external auditor cannot really comply with any requests from the internal auditor without diverting from discharging those statutory responsibilities.

It is extremely important for the external auditor to be independent. That means that the external auditor should not necessarily discuss the work done and the conclusions reached with any member of the company’s staff, even the head of internal audit. If the external auditor did agree to cooperate with the internal auditor then the internal auditor would inevitably obtain a deeper insight into the external auditor’s audit approach and that could enable the internal auditor to assist the company to conceal facts from the external auditor.

(d) Arguments for some of the board members concerns F plc’s exposure to fluctuations in the cost of materials because of currency movements is reduced by the fact that many of F plc’s purchases will be for generic ingredients that can be sourced from many different countries. For example, beef can be imported from South America or purchased from UK farmers. That flexibility of supply means that will be able to switch to UK suppliers if the cost of importing from Argentina or Brazil increases because of a currency movement.

Where ingredient prices are driven by currency changes then F plc’s competitors will be subject to many of the same pressures. For example, seasonal factors will affect the source of certain fruits and vegetables in the course of the year. For example, there may be a time of year when fresh peas are only available from a single country. If that is so
then any manufacturer buying – say – fresh peas in December will have to pay in the same currency and none will have any price advantage over F plc.

**Arguments against some of the board members’ concerns** Futures can be used to fix prices in advance, though, and F plc may be taking the risk that competitors have fixed their input prices using derivatives. In that case there will be times when F plc is uncompetitive.

The majority of F plc’s customers will be major supermarket chains. Those companies are notorious for pressing suppliers to provide keen prices and they may refuse to accept cycles in F plc’s costs. Supermarkets may be prepared to bully F plc into accepting little or no profit in the short term when prices are high, in the knowledge that the markets will probably reverse in the future.

**Conclusion**

Currency risks do have the potential to be serious enough to threaten the continuation of the company. Having said that, the approach recommended by F plc’s board involves relatively little in the way of transaction or management costs. If is a major importer from around the world then a comprehensive management of currency risks would require a sophisticated treasury system that would cost a great deal to staff. Economic risk is difficult to manage in the long term unless the company can create a natural hedge so that its cash flows tend to even out regardless of the value of the company’s home currency. Active management using financial instruments will really only delay the effects of price rises and may prevent F plc from taking advantage of price reductions.
SECTION B

Answer to Question Two

(a) C’s quality of service depends entirely on the quality of the work undertaken by professional staff, all of whom must work as members of project teams. Unfortunately, C’s culture stresses the importance of personal ambition and promotion. Career growth is mandatory because the firm will not permit staff to remain in post unless they are expected to move up within the organisation.

The emphasis on personal promotion may undermine the quality of work undertaken for clients. There is a danger that professional staff will be more concerned with their own contribution to a project than for the success of the assignment as a whole. That could, for example, lead to corners being cut and risks of errors in reviews and reports because an individual member of staff does not wish to exceed the time allocated for a particular task. That could leave the client exposed to serious risk if C permits a flaw in a design to remain undiscovered until the building is completed.

The firm’s partners may also be tempted to apply pressure to staff in order to generate profits from assignments. The firm has a reputation for bidding aggressively for work and that could result in the partner undercharging for the work that has to be done. The partner will wish to record a profit on the contract and so might underspecify the time required in the hope that the staff assigned with work harder or make up the difference with unpaid overtime. If staff members have insufficient time to complete their work properly then they may fabricate the results of reviews and tests.

Partners may also be unwilling to antagonise the architects and building contractors by expressing negative views on new building techniques. If C has a reputation for rejecting proposals then architects may prefer to recommend alternative firms to their clients.

The fear of antagonising architects creates two possible risks to client service. The first is that C will be overcautious when specifying materials (say, by using stronger girders than necessary) or in rejecting proposals as dangerous when they would be safe. In that case the client will not necessarily be aware of C’s mistake and so there will be no immediate impact on C’s reputation. There could, however, be a problem if the client seeks a second opinion from one of C’s competitors and discovers that C has wasted its time and money.

The second possible risk is that C will underspecify materials or will sign off on a design that is structurally unsound. In that case the resulting building may show signs of weakness or could even collapse. C’s error will clearly be highly visible and the firm will be left open to claims for damages.

(b) Strengths

The fact that there is no benefit in terms of salary or seniority means that the partners are not likely to be in competition for promotion to the management committee. That has the advantage of ensuring that they focus on winning business and supervising assignments.

The management committee will be made up of practising engineers who fully understand the important issues in the running of the firm. The fact that the members will return to normal partnership within three years means that they will not introduce any radical developments that may be beneficial to themselves but harmful to the partnership as a whole.

The partnership will include a number of members who have served on the management committee, which will give them a better understanding of the firm’s management.
Weaknesses

Partners may view the need to serve on the committee as an interruption of their professional activities as engineers. Their reduced commitment to assignments during the first two years and withdrawal from assignments in the third year could cost them contact with the architects and contractors on whom they rely for referrals.

Partners may be tempted to take on an excessive workload while serving on the committee and so the firm’s leadership will suffer because it is not a top priority.

Partners who are eligible for membership of the management committee may feel that it will interrupt their ongoing careers and so may start to lobby for exclusion. That will defeat the objective of every partner taking it in turn and may mean that only those partners who are willing, who may not be the best candidates, will participate.

The annual change of managing partner means that there will be no real continuity in that position, although each new incumbent will have spent the previous two years on the committee.

The fact that there is no room for professional management on the committee means that the administrative aspects of managing this engineering firm may not enjoy the prominence they deserve.

The fact that major strategic decisions are left to the partnership as a whole may mean that the management committee tends not to look beyond the immediate future.

Major strategic changes may be difficult to implement if it is necessary to obtain a majority of the votes from 45 partners.
Answer to Question Three

(a) Economic exposure is generally difficult to measure, but an understanding can be obtained by identifying the factors that will lead to economic exposure. Generally, these boil down to identifying the effects of changes to cost prices and selling prices, both for the entity itself and for its competitors.

G’s purchase prices may be affected by movements in the US$. The actual effects may not be linear because G’s US suppliers may not pass on the full effects of the currency movement. The suppliers may believe that the market for these products is sensitive to price rises and so the suppliers may choose to absorb some of the increased cost themselves. The likelihood of that happening will be determined in part by the availability of similar goods from economies that are not bound by the US$.

Currency movements may force G to raise its selling prices to customers. That makes the elasticity of demand for G’s products important. It may be that prices are inelastic and that consumers are willing to buy just as much even if the price rises slightly.

G’s competitors may also buy products priced in $US and that will reduce G’s problem to an extent because all competing products will be affected in the same manner.

(b) The financial statements will show the gains and losses arising on G’s currency holdings. The shareholders may be concerned that the company’s assets are exposed in this way and that they are risking a serious loss if the US$ declines against the R$.

The economic exposure that is being hedged will be apparent from the fact that the company will generate less revenue and make less profit when the US$ is high. This will not appear anywhere as a single, visible item or disclosure in the financial statements. The shareholders could be forgiven for believing that the only exposure is with respect to the US$ balance.

There is nothing to prevent the directors from explaining their strategy to the shareholders. It does not matter that there is a lack of symmetry in accounting for the different currency exposures provided the shareholders accept this explanation. This is, however, a complicated area and it would be legitimate for the directors to worry that the shareholders will misunderstand. If the shareholders believe that the directors’ policy is misguided then it could undermine their confidence in the board.

Technically, the directors are supposed to pursue the maximisation of shareholder wealth and so they should always act in accordance with the shareholders’ best interests. It would be dishonest to leave the company exposed to a manageable risk for no good reason simply because the shareholders may misinterpret the directors’ behaviour.

(c)

(i) The daily volatility is R$450,000.

The one-tail 95% confidence level is 1.645

(note: this is arrived at by interpolation. It would be acceptable to use 1.64 or 1.65 as an alternative)

95% daily VaR = R$450,000 x 1.645 = R$740,250

(ii) The 30 day VaR = daily VaR x √30

= R$740,250 x √30 = R$4,054,516

(iii) The directors can now claim that there is a 95% chance that the loss on any given day will be less than R$740,250. That statistic may be useful in defending the decision to hold those funds in US$, particularly in the event that the company suffers a much larger and more sudden loss.
The VaR statistic is based on historical variability. There is no guarantee that the volatility of the US$ versus the R$ will remain at that level. If there is a major shift in either economy or in the global economy as a whole then the past returns may turn out to be a very poor indicator of future variances.

Having said that, VaR is a widely used measure of risk, particularly in financial circles. It is perfectly reasonable to use the measure in this type of investment decision.
Answer to Question Four

(a) This fraud would have been extremely difficult to prevent and/or to detect.

The fraud involved collusion between two members of staff. Segregation of duties is one of the most powerful means of preventing fraud, but it can be defeated by fraudulent collusion. It would be virtually impossible to make a system effective without relying on segregation of duties.

The fact that one of the perpetrators was a senior member of staff made it more difficult to prevent. The head of an academic department in a college would be regarded as a trusted member of staff, who would not normally be expected to steal from the college. Systems are often designed in the expectation that senior members of staff will not betray such trust.

The system was further defeated by the falsification of a record on the personnel department. There was a sound control in place that was only defeated because of a combination of human error and blatant falsification. It would be almost impossible to design any system so that it was foolproof in preventing all mistakes and in preventing fraudulent falsification.

Once the fictitious entry had been made in the personnel files the fraud would be difficult to detect because it would add only a very small amount to the overall payroll. A college would have a large number of lecturers and there would be a substantial turnover in staff. The only people who could be expected to detect this fraud were implicated in it.

(b) Additions to the payroll should require further authorisation than just the head of the department in which he or she would be teaching. That is not just to prevent fraud and error, but also to ensure that those appointed are competent and well qualified.

Teaching time should be budgeted and allocated to specific classes. That should be part of the normal planning and budgeting process. Again, that is largely about ensuring that the college obtains value for money from teaching rather than merely trying to prevent fraud and error. This budgeting should be conducted, or at least reviewed in detail, by a dean of faculty or an assistant principal rather than the heads of individual departments.

Pass keys should not be issued to anybody other than designated security and cleaning staff. If a member of staff requires a door to be unlocked then the security guard should open the door personally rather than making a loan of a pass key.

Computer passwords should be issued to staff so that they cannot invent their own, easily guessable passwords. The college should have a policy of holding staff responsible for all input made using their electronic identities – regardless of whether they were actually involved – so that they are motivated to take care over logging out of systems and protecting access.

(c) It could be argued that the most important aspect of any secure system is authorisation. Software can compare entries in different files and highlight discrepancies, but it cannot make meaningful decisions about whether a transaction should be processed. For example, a bookkeeping package will process any transaction that is input by a user with access rights, regardless of whether that entry makes sense.

The physical security of any system is dependent on the behaviour of the people who operate it. It is, for example, common for security to break down because staff are careless over locking doors or restricting access to authorised personnel.

The most important changes that are made, such as amendments to standing data, often require some judgement on the part of the person responsible for authorising the change. If that person is not careful in agreeing to make the change then the fact that the software is programmed to ensure that the change has been authorised will be almost pointless.
Most fraud involving computers tends to be relatively low-tech. For example, the input of fictitious purchase invoices in the hope that this leads to a payment that can be intercepted. Such fraud is more easily detected by a human being than a computer programme.
The Senior Examiner for Performance Strategy offers to future candidates and to tutors using this booklet for study purposes, the following background and guidance on the questions included in this examination paper.

Section A – Question One – Compulsory

Question One This question is based on both the common pre-seen scenario and the unseen scenario. It draws on themes associated with the evaluation and management of risks, the role of internal audit and the evaluation of currency risks.

Part (a) draws mainly on section B of the syllabus (Risk and Internal Control), lead learning outcome 1 (evaluate types of risk facing an organisation), component (b) (evaluate risks facing an organisation). It deals with the evaluation of the risks associated with product safety issues and the associated publicity. The scenario depicts a situation in which the product appears to have been prepared incorrectly and so it is debatable whether the company in question is actually responsible for the ensuing damage.

Part (b) also draws mainly on section B of the syllabus (Risk and Internal Control), lead learning outcome 1 (evaluate types of risk facing an organisation), but deals with component (a) (discuss ways of identifying, measuring and assessing the types of risk facing an organisation, including the organisation's ability to bear such risks). It deals with the risks associated with intellectual property and the manner in which that might be protected. In this case there is no possibility of using patents or similar legal safeguards because the property is basically just a recipe that cannot be patented. The entity's primary safeguard is that knowledge of that recipe is restricted to two members of staff. A competitor has already attempted to lure one of those staff members away from the company.

Part (c) draws mainly on section C of the syllabus (Audit and Audit of Control Systems), lead learning outcome 2 (Evaluate the process and purposes of audit in the context of internal control systems) components (b) and (e) (produce a plan for the audit of various organisational activities including management, accounting and information systems and discuss the relationship between internal and external audit work). Part (i) deals with the possibility that the management of a division may request additional support from internal audit.

Part (d) draws mainly on section D of the syllabus (Management of Financial Risk), lead learning outcome 2 (Evaluate alternative risk management tools), component (a) (evaluate appropriate methods for managing financial risks). It deals with the strategic decision as to whether to actively manage currency risk or simply to leave it unmanaged and uncontrolled.

Section B – answer two of three questions

Question Two This question is based on a scenario relating to a consultancy that operates a very aggressive meritocracy for the retention and promotion of its staff. Arguably, such an approach to managing human resources may create significant risks to the entity because it may encourage staff to be more concerned with their own interests rather than those of the entity as a whole. The question also deals with the governance issues associated with appointing senior partners to the lead role in this type of entity.

Part (a) draws mainly on section A of the syllabus (Management Control Systems), lead learning outcome 1 (evaluate control systems for organisational activities and resources), component (b) (evaluate the appropriateness of an organisation’s management accounting control systems). It describes a fairly typical set of circumstances for a leading consultancy business. The management wishes to attract motivated and ambitious staff who will work hard to provide a competitive service. Unfortunately, that creates the dilemma that such staff will be equipped and motivated to take short-cuts that may threaten the quality of the service that they have been appointed to provide.
Part (b) draws mainly on section B of the syllabus (*Risk and Internal Control*), lead learning outcome 3 (*Evaluate governance and ethical issues facing an organisation*), component (a) (*discuss the principles of good corporate governance, particularly as regards the need for internal controls*). It deals with the implications of running an entity with a management team comprising partners whose involvement with that role will be temporary. This happens frequently in professional partnerships and in other entities.

**Question Three** This question deals with the management of currency risk. It visits important areas such as the measurement of economic risk, the possibility that economic risk is overlooked because it is less visible than other currency-related risks and the use of the value at risk (VaR) statistic.

Part (a) draws mainly on section D of the syllabus (*Management of Financial Risk*), lead learning outcome 1 (*Evaluate financial risks facing an organisation*), component (a) (*evaluate financial risks facing an organisation*). It asks candidates to consider the extent to which the entity in the scenario is exposed to economic risk. Rather than asking for the measurement of those risks, which would be a difficult area to evaluate, it asks for an indication of the factors that would determine economic exposure. That is more about the understanding of how a business might be affected by movements in its costs and selling prices rather than more complicated areas of currency management.

Part (b) draws mainly on section D of the syllabus (*Management of Financial Risk*), lead learning outcome 2 (*evaluate alternative risk management tools*), component (d) (*recommend risk management strategies and discuss their accounting implications*). It deals with the dilemma confronting managers. Translation risk is arguably the least important currency risk and yet it is highly visible to shareholders. Economic risk is arguably the most important currency risk and yet it is almost impossible to observe and measure as a separate component of risk. That raises the question of whether managers might be tempted to waste time and money on hedging translation risks and possibly paying less attention to economic risks in the process.

Part (c) draws mainly on section D of the syllabus (*Management of Financial Risk*), lead learning outcome 2 (*evaluate alternative risk management tools*), component (b) (*evaluate the effects of alternative methods of risk management*). It asks for the calculation of the VaR statistic and for the interpretation of the results. Apart from anything else, VaR is an important measure of risk exposure and so candidates should be capable of making use of it.

**Question Four** This question deals with the controls that ought to prevent fraud and the extent to which those controls rely on the integrity and commitment of those who operate them. In practice, the main types of fraud perpetrated in computerised systems are generally very simple and rely more on human error than complicated programming and hacking.

Part (a) draws mainly on section E of the syllabus (*Risk and Control in Information Systems*), lead learning outcome 1 (*Evaluate the benefits and risks associated with information related systems*), component (e) (*evaluate specific problems and opportunities associated with the audit and control of systems which use IT*). It asks candidates to identify the cause of a fraud that relied on the authorisation of fictitious salary payments by a senior member of staff and on collusion between that person and a member of the wages department. It also exploited a degree of carelessness in the security over terminals. In theory, the system was sound but the controls were bypassed in a manner that would be difficult to prevent in even the best-designed system.

Part (b) draws mainly on section E of the syllabus (*Risk and Control in Information Systems*), lead learning outcome 1 (*Evaluate the benefits and risks associated with information related systems*), component (d) (*recommend improvements to the control of IS*). This part continues the analysis of the fraud by asking candidates to focus more directly on the shortcomings of the system. In doing so candidates should be careful not to criticise sound systems because they could be circumvented by collusion.
Part (c) draws mainly on section E of the syllabus (*Risk and Control in Information Systems*), lead learning outcome 1 (*Evaluate the benefits and risks associated with information related systems*), component (a) (*advise managers on the development of information management (IM), information systems (IS) and information technology (IT) strategies that support management and internal control requirements*). It asks candidates to discuss the respective importance of the programmed controls in any system relative to the controls operated by people. The human element of any system is often overlooked, despite the fact that authorisation and supervision are often vitally important processes that rely largely, if not totally, on human intervention.