

CGMA AUGUST 2017 EXAM ANSWERS

Variant 4

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CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1

Part 1

Ethics of interviewing

The principle of integrity would require us to be straightforward, honest and truthful. We are hardly being truthful in that we are pretending to interview the applicant for a job that does not exist. The interview setting with put the applicant at a disadvantage and Abdullah appears to be using this as a means of coercing her to say more than she would be comfortable with revealing in a direct conversation. We are attempting to trick her into revealing commercially sensitive information. She is not even being interviewed on the basis of her qualifications or experience, we are only interviewing her because she knows about Dr Fraser's findings.

Abdullah's intention to appoint her only if that is the only way to extract information from her puts us in breach of the concept of objectivity. Job applicants are supposed to be considered on the basis of their suitability for the role that they applied for. Abdullah is saying that we will only appoint this candidate if she is willing and able to provide us with insights into Dr Fraser's trade secrets. This is probably the one attribute that it would be unacceptable to base an employment decision on because she is not permitted to provide us with that information.

We are also acting with a lack of professionalism. We are almost certainly putting the applicant under pressure to breach the regulations that form the basis of her present employment contract. The theft of intellectual property might not be illegal, but it is dishonest and it could have a negative impact on AutoAuto's reputation. We have already been refused further information when we asked a direct question of Dr Fraser and that indicates that he does not wish to share this knowledge with anyone.

AutoAuto does not owe a duty of confidence, but the applicant does. By implying that we will give her a job if she reveals enough about her present employer's business, we are putting her in a very difficult position. If she divulges confidential information because of this pressure then we are effectively in breach of the duty because we made her do that. That is made all the worse because Dr Fraser made her part of his research in order to assist her education. He has confided in her because he thought that he could trust her.

Part 2

Academic research

The fact that it will take at least two people to study the literature that is being published suggests that there is a great deal of material. There is a danger that the two new employees will distract AutoAuto's engineers from the business of developing new products. While the literature may contain some useful ideas, there may be too many papers being published every month to make it realistic for AutoAuto to read and apply all of them. The newly appointed reviewers will be under pressure to supply a constant flow of papers in order to demonstrate their value to the company and so the potential to distract may be significant.

If the academic literature contains potentially useful information then it may be more efficient to encourage AutoAuto's engineers to search for themselves using internet search engines. For example, an engineer who wishes to know about current developments in LIDAR could use that as a search term. This will not necessarily replace the full-time reviewers because their contribution could be in finding completely new ideas that internet searches will miss. For example, a new technology that has the potential to replace LIDAR may not be revealed in a search because the key words are too limited.

If we take Dr Fraser's research as reasonably typical, there may also be questions about the relevance of the publications that will be distributed. The paper is largely theoretical, with very little that can be applied in a direct commercial setting. AutoAuto's engineers may well benefit to some extent from being kept aware of the new ideas that are coming through the academic literature, but they are unlikely to find many papers that offer knowledge that can be put into immediate effect in a project. Theoretical papers need not be constrained by real-world considerations and so there could be ideas that will come to the market in the future, but only after the solution of the limitations of existing technology.

The two reviewers could prove cost-effective if they uncover even a single paper that offers the sort of breakthrough that Abdullah had with respect to Dr Fraser's research. It may be better for the reviewers to limit themselves to passing on a very small number of significant papers rather than trying to find large numbers of papers every month. The danger is that major findings will often be discussed in the mainstream press and in professional magazines aimed at practitioners. It may be that the breakthroughs envisaged by Abdullah will be fairly obvious in any case provided the engineers keep themselves up to date.

SECTION 2

Part 1

Scenario planning

Scenario planning would permit AutoAuto to imagine various states of the world in order to ensure that it can make a logical choice between the three strategic options that it has been presented with. For example, the existing system has undoubtedly been evaluated as a standalone investment project and it was a logical way for AutoAuto to proceed. Scenario planning will enable the Board to consider hypothetical possibilities, such as the impact on sales if it launches the system that is under development and the rival system is launched in three years' time. These "what if" scenarios will help the Board to better understand the risks associated with proceeding.

Scenario planning will enable AutoAuto to untangle some of the issues arising from the choices that have to be made. Constructing a scenario in which the Lidartech system is launched in three years will enable the Board to estimate the likelihood that their system will be displaced. There is only a limited number of vehicle manufacturers and so each lost customer will account for a significant decrease in revenue and profit. The Board can then debate the question of whether manufacturers will be willing to replace a proven design with an alternative that is, admittedly, cheaper and more aesthetic. Scenario planning could consider the factors that might motivate a vehicle manufacturer to switch to the Lidartech design and whether that becomes a serious risk.

Scenario planning also permits the Board to consider related threats and scenarios. For example, what might the outcome be of acquiring Lidartech and so launching a system in 18 months rather than 12? Is there the possibility that other rivals might launch sooner and use that extra 6 months to sign up vehicle manufacturers, thereby leaving us excluded from the market? If we do not acquire Lidartech and a rival takes it over then will we struggle to sell our existing product? We can think of ways in which our investment may succeed or fail and evaluate the likelihood of the factors that might determine those different outcomes.

The main drawback to scenario planning in this case is that we cannot investigate the different scenarios externally. For example, it would be reckless to consult with manufacturers over the possible availability of a cheaper system that is easier to install in their vehicles. Also scenarios give insights into possibilities, but we cannot quantify the associated probabilities in order to evaluate the likelihoods of different scenarios. Also, the scenarios are likely to be interconnected and complicated to resolve. For example, vehicle manufacturers may be unlikely to replace a driverless vehicle system within a year for the sake of a relatively small saving unless they were remodelling their designs in any case. So scenario planning can never be more than a decision aid, it cannot reveal the "best" course of action.

Part 2

Contingent formula

A contingent formula will protect AutoAuto's interests in a number of ways. For example, it will motivate Dr Fraser to remain with the company and to work hard to complete the design work. Lidartech will be worth very little without Dr Fraser's input and the intellectual property that he has created to date. He might be tempted to resign in the absence of a contingent consideration, or to delay the completion of the development work so that he can exploit it in some other way that suits his personal interests. AutoAuto's shareholders will feel more comfortable with the acquisition if they know that Dr Fraser has to complete the design in order to be eligible for the contingent part of the consideration.

The contingent payment will simplify the negotiations because the final exchange will be dependent on the development work being completed. This reduces the risk that AutoAuto will suffer from the acquisition of Lidartech, only to discover that the new technology cannot actually be developed in a manner that is commercially viable. Dr Fraser will wish to ensure that he is properly rewarded for the success of his design. The contingent arrangement enables us to reach a realistic agreement that should benefit both sides. The agreement will, however, have to give Dr Fraser a realistic minimum compensation, otherwise he may feel that he is bearing the downside risk with too little reward in the event that the product cannot be delivered.

Negotiations may be further simplified by the fact that Dr Fraser is retaining 10% of Lidartech. That significant minority interest will serve to enhance the upside potential of the contingent payment. The only risk is that Dr Fraser may have an incentive to mislead AutoAuto about the progress of the development work because he has a significant amount to gain from the success of the project and has very little exposure to the risk of failure. He might, therefore, overstate the likelihood of success instead of recommending abandonment if that would be appropriate.

AutoAuto's shareholders may find this arrangement difficult to understand because they face the dilution of their shareholding in 3 years. The conditions associated with the further transfer are expressed in terms of subjective judgements about the success of the development work. Arguably, Dr Fraser will be entitled to his payment even if the system does not generate any revenue because of external factors such as a superior product being launched by the competition. The shareholders are unlikely to receive much information about the ongoing progress of the project in any case because that would pass useful information onto the competition, which will create further confusion over dilution.

SECTION 3

Part 1

Dr Fraser

If Dr Fraser's background is in academic research then he will have had little or no experience of business management. The shareholders are unlikely to have any confidence in his suitability to sit on the Board.

There is also likely to be a conflict between Dr Fraser and Abdullah if they both appear to offer the same role and feel the need to assert themselves. The fact that Dr Fraser will retain a significant minority shareholding in Lidartech will also create the possibility of a conflict of interest because he may decide to use his board position to take care of the interests of that subsidiary.

If Dr Fraser plans to continue as an academic then he may not have sufficient time to devote to a seat on AutoAuto's Board. He will have a senior position in Lidartech in addition to his academic post and he may be unable to provide a meaningful input into AutoAuto's business, especially given that he plans to remain in Farland.

On the plus side, giving Dr Fraser a seat on the Board could be one way to ensure that he is motivated to pursue AutoAuto's best interests, particularly with regard to developing the driverless vehicle system. It will also encourage him to remain with the company in the longer term and may mean that his ideas for future developments are kept in AutoAuto rather than taken and sold to us in the future.

Part 2

Currency risks

Low interest rates are generally associated with strong currencies. If interest rates in Upland are low then the US\$ would be expected to strengthen, which should make it cheaper to reimburse the cost of wages and office rent incurred in F\$. We would have to compare interest rates in Upland with those in Farland, but it is to be hoped that Farland will have higher rates because that would imply that any currency risk is likely to be on the upside rather than the downside. The rate implied by these rates is only a prediction and cannot be guaranteed, so there could still be some volatility.

A strengthening currency is normally associated with increased selling prices and an associated economic risk. This need not be the case for this arrangement. Firstly, the sale of intellectual property may be largely about "renting" out rights such as patents. These are essentially sunk costs and so AutoAuto can reduce the price of royalties expressed in US\$ to suit. There would still be a downside to that because sales volume will continue but the value of those sales will diminish. The other issue is that AutoAuto may continue to manufacture its products abroad and those will be cheaper to buy in terms of US\$. Again, those savings can be passed onto the vehicle manufacturers in order to protect volume.

Part 3

Shareholders reaction

The most significant concern is likely to be the immediate loss of 12% of their equity in order to obtain this subsidiary. If the acquisition is a success then their remaining 88% will be worth significantly more, but that cannot be guaranteed at this stage.

These concerns will be compounded by the fact that AutoAuto is effectively abandoning a well-developed and low-risk development strategy for one that relies on a new technology. The shareholders have watched AutoAuto develop sensors and driver aids that can be

integrated into a driverless vehicle system. Lidartech's system looks better, but it may not actually work.

The best way to motivate the shareholders would be to brief market analysts who specialise in technology. If we can convince them that the investment in Lidartech is in AutoAuto's interests then they will advise shareholders to retain their investments and possibly to buy more, thereby protecting the share price.

The best way to prove the technology would be to develop a prototype as a matter of priority. If the Board can show progress to the public, or even to a closed group of analysts then the shareholders will be reassured that the product is viable.

Part 4

Post-transaction

The most significant concern will be if Dr Fraser is not motivated to succeed. He has a clear economic incentive to do so, but his behaviour to date suggests that he is not wholly motivated by money. He risked the exposure of this technology by working with a PhD student and confiding in her. He also alerted the market to the possibility of his new technology in an academic journal, rather than completing the development and publishing afterwards.

There could also be problems in liaising with the design office in Farland. The engineers who will work on this new technology will not be experienced in dealing with AutoAuto's customers. AutoAuto will retain a design function in Upland to work on some of the practical issues associated with making these products. For example, the designers employed by Dr Fraser might not be particularly good at integrating the design of a control panel into a vehicle's dashboard.