Exam and question tutorial management case study

2019 CIMA Professional Qualification

Exam tutorial

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Question tutorial

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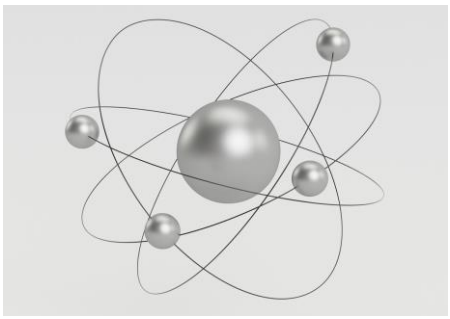
Review model answers and marking schemes:

- Model answer for variant 1 can be accessed here
- Marking scheme for variant 1 can be accessed here
- Model answer for variant 2 can be accessed here
- Marking scheme for variant 2 can be accessed here



GRAINGER

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Job description

You are a Financial Manager with Grainger. You report to Janine Frier, a Senior Financial Manager, who in turn reports to the Finance Director.

Your primary responsibilities are associated with management accounting. This means that you often have to liaise with colleagues from the treasury and financial reporting functions and also from other functional areas, including Sales, Human Resources and Operations.

Organisation background

Grainger designs and manufactures mobile phones.

The company is based in Deeland, which is a developed and industrialised country. Deeland requires the application of IFRS for financial reporting. The country's currency is the D$.

Since it was founded in the 1950s to manufacturer consumer electronics, such as radios, Grainger has developed and adapted its product range over the years in response to developments in consumer tastes and trends. By the early 1990s, Grainger was a major manufacturer of mobile phones and by 1998, it was making nothing but mobile phones.
Grainger is a global manufacturer and its products can be purchased in most countries around the world.

Grainger was quoted on the Deeland stock exchange in 1999.

Mobile network infrastructure

Mobile phones themselves would be useless without the extensive infrastructure created by the network providers that make it possible for the phones to make or receive calls from almost any populated area on Earth.

The infrastructure is based on relatively low-powered radio base stations that have adjoining or overlapping coverage, so that a phone user is always within range of at least one base station.

The base stations can be free standing, or mounted on top of buildings. In cities, there are often small systems mounted on the sides of buildings. The base stations have a relatively short range and so establishing a mobile phone network is a complicated and expensive undertaking, in order to ensure that population centres are covered. It is also necessary to build and operate base stations alongside motorways and other major roads.

Mobile network providers

Mobile phone manufacturers such as Grainger do not provide the phone services or infrastructure. Most countries have several network providers who compete to sell connections to phone users. Users pay to use these services in two ways: 'pay monthly' and 'pay as you go'.

Under a pay monthly contract, the customer pays the mobile network provider at the end of each month for calls made and other services that have been used. There is usually a fixed element to the monthly payment, which covers access to the network and also some calls and other services. There will be an additional variable element to the payment if the customer uses additional call time or other services. The network provider has the customer's bank details and collects monthly payments by direct debit.

Pay monthly contracts are typically for two years. The network providers usually give the customer a phone as an incentive to sign the contract and a replacement (or 'upgrade') phone when the user renews at the contract's end. Those phones will either be 'free' or will require the customer to pay a heavily discounted price that is usually 20-25% of the phone's retail value. The networks are effectively selling these phones on credit because they recoup their costs by building a repayment into the fixed element of the monthly fee.

Pay monthly customers are effectively being sold new mobile phones every two years, whenever they renew their contracts. As an incentive to attract or retain customers, the network providers use their buying power to obtain discounts when they buy phones and they pass much of that discount onto their customers.

A pay as you go customer must pay in advance to use the mobile network. Advance payments can be made by buying a voucher from a shop, by making a card payment or by using some bank automated teller machines (ATMs). The resulting credit is tracked by the network providers' systems and is used whenever the phone makes a call or accesses another service.

The network providers ensure that pay as you go phones are sold at a discount to their full retail value, again as an incentive to attract customers. That discount is less generous for a pay as you go phone than for pay monthly because a customer who buys a pay as you go phone is under no legal obligation to buy further credit.

Sim cards

Each mobile phone is identified by a SIM card, which carries unique identifying data. The network provider issues the SIM card to the user. Changing the SIM card changes the identity of the phone, including its phone number.

All phone manufacturers, including Grainger, generally 'lock' their phones by entering an encrypted setting in the phone's operating system. A locked phone will work only with a SIM card issued by a designated network provider, thereby forcing the phone's owner to use that network provider's service. Locking the phone protects the network provider, who has given the customer a discount from the retail price. Otherwise, customers could buy their phones from one network and insert SIM cards from another.

It is possible to buy unlocked phones, which will work with any network. The lack of a discount from the network supplier makes them expensive to buy.

Network providers often have their own retail channels to sell phones and SIM cards. These can include both shops and online sales. These channels carry the network provider's brand. They sell pay monthly and pay as you go phones, with associated service contracts, that are locked to their own networks.

Mobile phones can also be purchased from independent retailers, who generally sell phones on behalf of a variety of network providers. Network providers give the retailers commissions so that the customer pays the same for a pay monthly contract or a pay as you go phone obtained through a retailer or through the network provider.

Although Grainger's business model does not include selling mobile phone's directly to the phone user, it does have a direct relationship with the users.

In order for users to take advantage of Grainger's standard manufacturer's warranty for their phone, they are required to register their details online on Grainger's website. This also allows the users to receive advance information about new phone models that are in development, as well as to access the online support forum.

This involves the user registering their email address to create an account which is password protected. Full name and address details are also required to be provided as part of the registration process.

Users can also take up the option of an extended warranty on their phone. The cost of this depends upon the length of time they wish to take the extended warranty out for and whether they also want to include accidental damage cover. Payment for this is taken by credit card.

Mobile phones and their uses

When mobile phones were first developed, their primary function was to enable users to make and receive phone calls when they were away from home. Over time, various functions have been added and voice calls have become increasingly irrelevant to many users. For example, SMS text messaging rapidly gained popularity and it became commonplace to communicate by text message in place of making voice calls.

The function of mobile phones is constantly being redefined, thanks to the flexibility associated with the underlying technology. A mobile phone is essentially a handheld computer that incorporates radio facilities for wireless communication. In addition to the wireless connection to the mobile phone network, most phones have the ability to connect directly to wireless local area networks through Wi-Fi and to other nearby electronic devices through Bluetooth.

Mobile phones are frequently used to access the internet and email and are frequently used to update social media accounts and to engage in online commerce.

Many phones come equipped with cameras. Many users rely on their camera phones for their photographic needs, to the point where phone cameras are rivalling basic digital cameras in terms of quality. Camera sales are declining because of improvements in phone cameras.

Phones are also used as personal music players and handheld games consoles, again displacing audio players and portable games devices.

It is becoming increasingly common for householders to dispense with traditional landlines for making phone calls. Landlines are often used for internet access and mobile phones are used for all voice calls.

Quite apart from the technical developments, many users regard their phones as fashion accessories. Perfectly functional phones are often replaced in order to remain abreast of current trends. So-called ‘smartphones’ offer the level of functionality described above, although there is also a market for basic mobile phones that may be used by those who find smartphones too complicated or who need an inexpensive phone to allow, say, a child to stay in contact when away from home.

Most manufacturers, including Grainger, concentrate their development efforts on their smartphones. Upgrades to existing models are often incremental, for example a slightly better camera or a slimmer, more lightweight or attractive case.

Software issues

All electronic devices, including mobile phones, rely on operating systems to enable the hardware to function.

In the early days of mobile phones, each manufacturer developed a basic operating system to translate, say, key presses into electronic instructions such as accepting an incoming call.

Over time, mobile phones have become increasingly complicated to the point where it would be uneconomic to develop separate operating systems. Most manufacturers use an open source operating system that has been adapted slightly to meet their specific needs. Open source means that the operating system's owner grants permission to install it free of charge and to adapt it as required. For example, Grainger's smartphones display the company's logo when the phone is being powered up and the various screens that the users interact with were all designed by Grainger.

Users can also buy software applications (known as 'apps') that enable them to add functions to their phones. A wide range of apps is available, ranging from games to business software such as word processors. Some apps are free to download and use and others must be paid for. Many electronics companies release apps that enable the user's mobile phone to operate as remote controls for their products. For example, some televisions can be operated using apps running on compatible phones. Apps may have also have specialised uses, such as assisting pilots to prepare and file flight plans.

Grainger's use of the open source operating system that has become the industry-standard is very much a mixed blessing. On the plus side, it means that it need not incur the costs associated with developing and updating its own operating system. The operating system's owner does not charge for its use. Potential buyers know that they will be able to install a wide selection of apps. The operating system can also exchange files with their laptops and tablets. On the downside, most of Grainger's direct competitors use the same operating system, which gives their phones a similar appearance to Grainger's.

Radio frequencies and data connections

Radio communications work by transmitting a signal that is pitched at a specific frequency. The signal can then be captured using a receiver that is set to the same frequency. That principle is true for all forms of wireless communications, including radio and television broadcasts, radio communications by the military and emergency services, and other telecommunications, including mobile phones. Most countries have very strict laws governing radio transmissions, otherwise there would be a risk of interference between signals. Most governments treat radio frequencies as a national resource. Over the years there have been four generations of mobile phone, each of which has occupied a different area of the radio frequency spectrum. The changes have arisen because the laws of physics mean that some frequencies are more suitable than others for communications. Moving mobile phones to different frequency bands can also reduce the risk of interference between mobile phone communications and other services.

New generations of mobile phone occupy different frequencies and they require the network providers to install new base technologies. The overall effect has generally been to increase network capacity, meaning that mobile phone networks are unlikely to be swamped by the volume of calls. It also means that data can be transferred more quickly and the quality of voice communication has improved. The volume of data that can be carried over any given channel is often referred to as ‘bandwidth’.

Mobile phone generations

Each generation of mobile phone has been numbered. Today, most mobile phones operate as either 3G or 4G. 3G remains in widespread use around the world and offers features such as basic internet browsing, receiving and transmitting data files (such as photographs). 4G phones are faster still in comparison to 3G, and 4G networks are now generally available. Phones are generally 'backwards compatible' which means that they can use older networks when required. So, a 4G phone that is out of range of a 4G network can connect to any available 3G or 2G network, albeit at the slower speeds specified by those earlier generations.

Latest developments

5G is the name given to the latest generation of wireless networks. The relevant standards are still in the process of being defined. The ambiguity around 5G is because it's still largely a concept at this point, and the wireless industry hasn't settled on any standards around the new network. Some key goals of 5G include:

- Significantly faster data speeds: Currently, 4G networks are capable of achieving peak download speeds of one gigabit per second (Gbps), though in practice it's never that fast. With 5G, this would increase to 10Gbps.

- Ultra-low latency: 'Latency' refers to the time it takes one device to send a packet of data to another device. Currently with 4G, the latency rate is around 0.05 of a second, but 5G will reduce that to about 0.001of a second. This is a significant improvement when data has to be communicated in as close to real time as possible. For example, the precise operation of remote industrial equipment or the safe navigation of driverless cars will benefit from this reduction in latency.

- A more 'connected world': a phenomenon referred to as 'The Internet of Things' involves building connectivity into products and devices such as domestic appliances, cars and even wearable devices. So, if your car develops a fault it could email details to your local garage and enter the service appointment into your online diary. The growth in this technology will cause an exponential growth in the number of devices connected to the internet and will require a network that can accommodate billions of connected devices. Part of the goal behind 5G is to provide that capacity, and also to be able to assign bandwidth depending on the needs of the application and user.

Clearly, 5G offers capabilities that go far beyond enhancing the use of mobile phones. For example, the 5G network would have sufficient bandwidth for household appliances to communicate routinely over the internet. A domestic fridge could have a scanner that reads the barcodes on products as they are purchased and subsequently used. The fridge could then order replenishments from an on-line supermarket or its owner could use an app to check whether there is, say, fresh milk in the fridge before coming home.

Each new generation of phones has created opportunities and challenges for phone manufacturers. Grainger's earliest models were made for 2G. Now the company offers a range of 4G smartphones. Grainger's management team is studying the potential created by 5G, even though it is unlikely to be operational before 2020 and, even then, it is likely to be another two years or more before 5G networks become widely operational across most of the countries in which Grainger operates in. Thus, although work continues on developing a new range of 5G ready smartphones, Grainger's current focus remains on improving the company's range of 4G phones to further exploit the opportunities offered by new and

improved versions of the operating systems and the ever-increasing range of smartphone apps that are being developed.

Battery technology

Mobile phones depend on batteries for power. A battery is essentially a pair of electrodes that are connected electrically by a substance called an electrolyte. Chemical reactions between these components create electricity when a circuit is completed between the two electrodes. For example, switching on a mobile phone completes an electrical circuit and electricity flows from the battery until the chemical reaction has finished.

Some batteries are rechargeable, which means that the chemical reaction that created the electricity can be reversed by running an electrical current through the battery. This can be repeated many times, although most batteries deteriorate slightly with each recharging cycle and eventually lose the ability to be recharged.

The potential to create electricity from a rechargeable battery is generally a function of the materials used in its construction and also the size of the battery.

Battery life is a significant aspect of a mobile phone's performance. Whenever a mobile phone is switched on, it makes frequent connections to the network in order to update the network's ability to route calls and other messages to the phone. Calls and messaging consume power, as does any activity that requires the use of the screen because the backlighting that makes the screens LCD panel visible consumes a great deal of power.
Battery life is also constrained by trends and tastes in phone styles. Users value slim phones that are easy to carry and that look sleek. Making phones slimmer leaves less internal volume for a large battery.

Mobile phone manufacturers are constantly evaluating the latest battery technology because users are often frustrated by their phones running out of charge. It is not uncommon for users to be forced to recharge their phones every night in order to obtain a full day's use next day.

Rechargeable batteries can create problems for manufacturers and users. They produce a fairly high current and the process of charging and discharging rechargeable batteries can also create a great deal of heat. That can raise safety concerns. For example, fuel stations forbid the use of mobile phones while operating fuel pumps because of the slight risk of a spark created by a rechargeable battery igniting the vapour from the car's fuel tank.

Extract from Grainger's Integrated Report

Our Vision

To be recognised globally as the number one manufacturer of smartphones

Our Mission

To provide high quality products and industry leading levels of customer service, delivered by experienced and empowered staff. We aim to recognise the needs and desires of our stakeholders in all of our operations.

Staff

We recognise that, in order to satisfy the needs of Grainger's other stakeholders, it is vital that we attract and retain the best people. We are committed to providing industry-leading career opportunities for all staff and are proud of our record as an equal opportunity employer, dating back to well before legislation was introduced to ensure such practices were adhered to.

All staff are encouraged to develop a tailored training programme, in agreement with their line manager. We also encourage our staff to engender relationships with the local community and, in addition, provide up to 5 additional paid days annual leave for them to dedicate time to their chosen charitable causes.

We offer a competitive remuneration package that includes above average basic salaries, a profit-related bonus scheme and other incentives such as private health care, generous maternity and paternity leave and staff discounts

Shareholders

Our shareholders range from individual investors to venture capitalists and large institutional investors. However, regardless of the level of shareholding, we are committed to building strong, transparent relationships with all of our investors, through regular shareholder meetings and email communications as well as the dedicated investor section of our corporate website.

We fully recognise that, without the continued support from our shareholders, we would not be able to maintain the growth strategies that we need to pursue in order for us to maintain our competitive advantage and sustainability.

Customers

We aim to always deliver only high quality products and services to our customers. Our staff are thoroughly trained to produce value-adding and defect-free products and exemplary levels of customer service, based on constant feedback obtained from regular customer surveys and day to day interaction with customers.

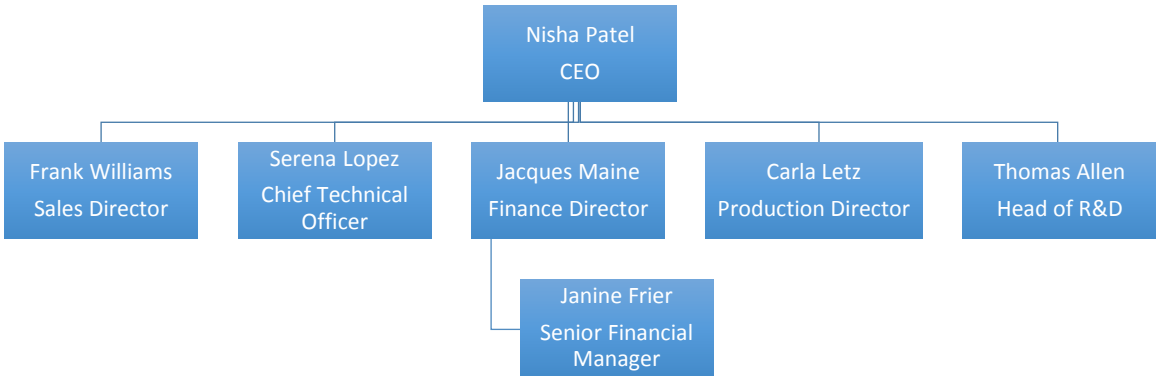
We are very proud of our record of being amongst the top 3 mobile phone suppliers globally for product quality and customer service, for each of the past 10 years, and our aim is to become the number one supplier every year.

Suppliers

We continue to build relationships with our suppliers and see them very much as part of our organisational ecosystem, along with our other key stakeholders. A reliable supply of quality components is vital if we are to provide products to the standards that our customers have come to expect from us.

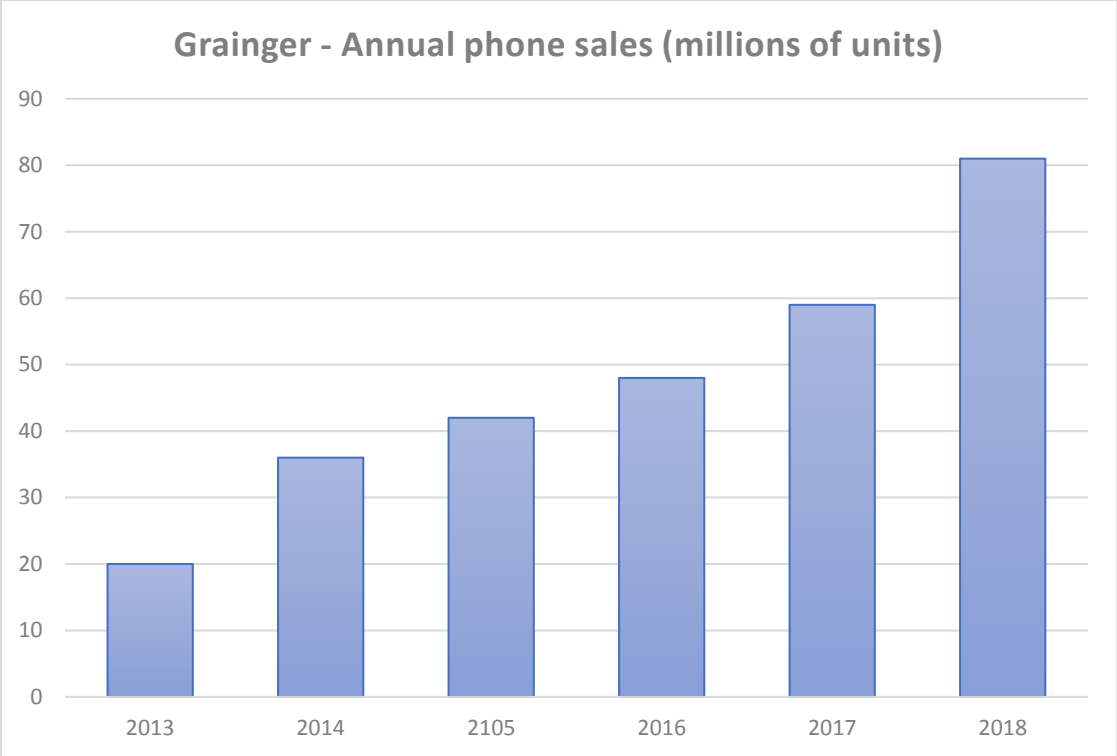
We have invested heavily over the past couple of years in a number of joint projects with several of our suppliers, resulting in mutually beneficial outcomes for all parties.

Management Structure



Grainger's sales graph

Grainger is one of the largest global mobile phone manufacturers, expressed in the number of phones sold.



The cost of manufacturing a mobile phone

The cost of manufacturing one of Grainger's most popular models is shown below:

	D$
Memory	28.56
Display screen	57.40
Processor	26.60
Camera	18.20
Wireless section	44.80
User interface and sensors	21.00
Wireless connectivity	5.88
Power management	10.50
Battery	5.04
Case and buttons	39.20
Box contents (charger, earphones, etc)	9.80
Total materials	266.98
Manufacturing labour and overheads	11.20
	278.18

Extracts from Grainger's financial statements

Grainger consolidated statement of profit or loss

For the year ended 31 December	2018	2017
	D$ million	D$ million
Revenue	39,712	34,890
Cost of sales	(22,822)	(20,040)
Gross profit	16,890	14,850
Research and development expenses	(5,755)	(5,688)
Selling and administrative expenses	(6,053)	(5,948)
Operating profit	5,082	3,214
Finance costs	(399)	(262)
Profit before tax	4,683	2,952
Tax	(545)	(343)
Profit for year	4,138	2,609

Grainger consolidated statement of financial position

As at 31 December	**2018**	**2017**
	D$ million	D$ million
Non-current assets		
Goodwill and intangible assets	282	266
Property, plant and equipment	3,820	3,422
	4,102	3,688
Current assets		
Inventories	6,233	5,723
Trade receivables	9,249	8,126
Cash and cash equivalents	10,456	7,412
	25,938	21,261
Total assets	30,040	24,949
Equity		
Equity attributable to owners	20,496	17,096
Non-controlling interests	200	187
	20,696	17,283
Non-current liabilities		
Loans	2,614	1,717
Deferred tax	46	38
	2,660	1,755
Current liabilities		
Trade payables	6,133	5,408
Tax	551	503
	6,684	5,911
	30,040	24,949

Note 1 – segmental information

Revenue

	2018	2017
	D$ million	D$ million
Europe	12,708	10,118
Asia	9,531	9,420
America	7,148	6,629
Middle East	4,368	2,791
Other	5,957	5,932
	39,712	34,890

Operating profit

	2018	2017
	D$ million	D$ million
Europe	1,830	996
Asia	1,321	868
America	813	579
Middle East	457	321
Other	661	450
	5,082	3,214

Note 2 – intangibles

	Goodwill	Development	Patents	Trademarks	Total
	D$ million	D$ million	D$ million	D$ million	D$ million
Cost					
At 31 December 2017	160	89	78	45	372
Additions	-	30	8	4	42
Disposals	-	-	(11)	(8)	(19)
At 31 December 2018	160	119	75	41	395
Amortisation					
At 31 December 2017	-	55	32	19	106
Charge for year	-	11	7	5	23
Disposals	-	-	(9)	(7)	(16)
At 31 December 2018	-	66	30	17	113
Net book value					
At 31 December 2018	160	53	45	24	282
At 31 December 2017	160	34	46	26	266

Note 3 – property, plant and equipment

	Property	Plant and equipment	Total
	D$ million	D$ million	D$ million
Cost			
At 31 December 2017	1,232	3,901	5,133
Additions	27	722	749
Disposals	-	(267)	(267)
At 31 December 2018	1,259	4,356	5,615
Amortisation			
At 31 December 2017	244	1,467	1,711
Charge for year	47	286	333
Disposals	-	(249)	(249)
At 31 December 2018	291	1,504	1,795
Net book value			
At 31 December 2018	968	2,852	3,820
At 31 December 2017	988	2,434	3,422

Exhibits

Mobile Technology Weekly

Are you DPSA compliant?

The Data Privacy and Security Act (DPSA) was introduced earlier this year by the Deeland Government. This new legislation builds upon the original Data Protection Act that had been in place for over 20 years and attempts to reflect the sheer volume and variety of data being held by organisations, especially relating to their customers, in the ever-evolving digital economy that we find ourselves in today.

The two key areas of focus of the DPSA are to ensure that data held by an organisation is only used for the purposes agreed with the customer (or user) and that the data is protected from unlawful access by third parties.

Although there have been no prosecutions to date under the new legislation, several high profile Deeland-based organisations are currently under investigation for various degrees of data breaches, including mobile network giant Access who, it is alleged, were subject to a major data breach resulting in a third party gaining access to the personal data of over 500,000 customers, including name, address and credit card details, as well as user names and passwords.

A spokesperson for the Deeland Information Office (DIO), who are responsible for overseeing the DPSA, stated that, whilst they couldn't comment on specific ongoing cases, if any organisation was found guilty of an offence of this magnitude, the DIO would consider seeking the highest penalty possible under the act, which is a fine of D$50m or 1% of annual revenue, whichever is greater.

TECHSPOT HOME BLOG NEWSBUZZ SUPPORT

TOP 3 DEVELOPMENTS IN MOBILE TECH FOR THE COMING YEAR

1**. Flexible Phones**
New silicon technology is being developed to produce the first mass produced flexi-phones (tablet computers that can be folded and then used as a mobile phone). Currently in production in Asia for first release expected in January 2020, manufactured by AKIZ Tech.

2. **Increased durability and waterproofing**
New injection molding technology is being adapted for the mobile phone industry to guarantee total water resistance without comprising lightweight design and phone aesthetics. Currently being developed and tested by Mensica Technology and expected to be in production by late 2019.

3. **Convenient Charging Methods**
Several phone companies are working on improving how phones are charged, to remove the inconvenience of needing to plug in a phone to charge it. The use of charging ports instead of cables, using built-in wireless charging options, will probably become standard in newer phone models within the next 12 months.

January 2019

MANAGMENT CASE STUDY PROTOTYPE EXAM ANSWERS

Variant 1

These answers have been provided by CIMA for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

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

Task 1

Risks associated with immediate launch

The most immediate risk is that the modifications will not work and that some of the phone will catch fire and injure customers. In everyday use, a phone catching fire could have huge consequences, such as causing a motorist to crash or threating the safety of an aircraft. Given that Grainger is aware of this risk, it will almost certainly be held liable.

Grainger's reputation will be at risk because it will be perceived as a company that puts profit before the safety of its customers. It will be very difficult to justify the decision to launch the phone without full and thorough testing. Both Dring and Dare will have incentives to make it clear that they were concerned and so the story will be very likely to become public.

There could be other problems arising from the modifications. For example, making the case out of thinner materials may make it distort and the phone may fail in the process. Releasing an unreliable product may be almost as damaging to Grainger's commercial interests as releasing a dangerous one.

There is an upside risk in that a timely launch would capitalise on market interest and consumer expectations. Any delay could lead to consumers losing interest. A delayed launch could also create the impression that there are problems with the phone's reliability.

Project management

There has been a lack of proper ownership of this project. It is unacceptable that the external design companies should be claiming to have done their individual jobs properly while the resulting parts do not fit and work together. There should have been a team within Grainger's Research and Development

Department taking full responsibility for the whole project, so that the responsibility for the problems with the prototypes remained in-house.

Proper ownership would have addressed the lack of coordination between Grainger and the two outside companies. The external design companies should have been submitting samples and models to Grainger and staff there should have been checking that all dimensions were within design tolerances. Then a formal decision could have been taken as to how to rectify any compatibility issues.

The responses by the external companies imply a blame environment. Neither company could quite meet the specifications that had been imposed by the design and both attempted to deal with that by submitting a component that did not quite meet the specification. A more constructive “no surprises” environment would have encouraged the designers to have approached the main design team at a much earlier stage to report that there were issues. Perhaps the overall design could have been modified slightly to accommodate the design problems with the battery and the case.

The short deadlines have robbed Grainger of the scope to redesign. That may have been a conscious decision because the products have a short lifecycle and there are commercial and marketing considerations, but there is little opportunity to adapt to the problems. It might have been possible to address partly by setting far stricter criteria for the designers, so that a battery that was even fractionally too large would be deemed unacceptable. That would have meant that Dare and Dring would not have tried to pass off slightly out of spec items at the last minute.

Task 2

Accounting treatment

The expenditure may be capitalised as development if it meets the criteria set out in IAS 38 *Intangible Assets*. The definition of development involves the application of research findings to the planning or design of new products before the start of production or use. In principle, that definition would encompass the work done on Trams because Grainger is planning to launch the new phone.

IAS 38 sets out generic criteria for the recognition of an intangible asset. Grainger will only be permitted to capitalise the costs as intangibles if it is confident that the expenditure will yield future economic benefits. It is also necessary for the cost of the asset to be determined reliably. Grainger’s Board will have to consider each element of the D$275 million outlay to date separately. The IAS sets out a further set of criteria that relate specifically to development in order to apply these generic criteria. Failure of any one of those criteria would require the cost to be written off.

The D$75 million paid to Dring appears to have resulted in a viable battery design that uses new technology. If Grainger intends to proceed with the

manufacture of Trams then it would be possible to capitalise the D$75 million and amortise it over the product's expected life. It may be possible to modify this treatment if the contract with Dring gives Grainger ownership of the intellectual capital in the new battery design. In that case, it may be possible to amortise it over a longer period if Grainger is confident that it will use the battery on further new products.

The D$60 million paid to Dare for the design work can only be capitalised if the Trams phone will go into production. That would require the technical problems that have affected the prototypes to be resolved and the commercial concerns voiced in the business press to be dismissed by Grainger's Board. If the phone is not expected to go into production then the design work will have little real value in itself and IAS 38 will require that it be written off.

The treatment of the D$140 million spent in-house in Grainger's laboratories will also depend on the Board's intentions to proceed with Trams. The R&D costs incurred in-house will also have to be costed accurately. It would, for example, be necessary for the design engineers to have kept records of the time spent on this particular project and for all bought-in materials and components to be traced to the development of Trams.

Integrated report

Grainger's intellectual capital will be increased by the development of this new product. The phone has design features, notably a thin case and compatible battery combination, that will give the company an advantage over competitors. The report should explain the form that the intellectual capital takes, including whether it comprises contractual rights, patented products and processes and knowledge that will benefit the entity.

The creation of this new phone will also enhance Grainger's human capital by developing skills in the development of new products and in marketing the new technology. The integrated report should explain how the work done to date on Trams has helped the staff employed in the project to develop their understanding of the implementation of Grainger's strategy.

The phone has also enhanced Grainger's social and relationship capital, primarily through the work that it has undertaken with Dring and Dare, through developing the ability to work closely with those companies and through the development of an effective interface between those two key suppliers.

Grainger could also indicate the impact of this new product on natural capital. The intention behind Trams is that it will encourage customers to upgrade their mobile phones, which will lead to the unnecessary consumption of natural capital, such as scarce materials and the emissions associated with their mining and transportation. Hopefully, Grainger will be able to report some mitigation of those harmful effects.

Task 3

Target costing

We need to make quite a significant saving of D$15.04/315.04 = 5%. There is unlikely to be scope in saving anything on the power management component because we have just negotiated that cost. We may have to find a large number of very small savings in order to get the overall price down.

One challenge is that many of the costs appear to be the same as for our previous model. That implies that we have had these costs under review for some time and have been unable to change them. We might be able to have the engineers review those aspects that are under our direct control, such as asking whether there could be any savings in the manufacturing costs.

We should investigate the big-ticket items that have pushed the price up, such as the case. Presumably, the cases used on the old model were of an acceptable quality and so we might be able to find a way to make or buy a presentable phone case that costs a little less than D$52.70. The engineers might be asked to assist us in reengineering these parts.

Our engineers may help us to argue that the battery price is excessive because the designers at Dring did not achieve their design brief. The incremental cost of the new battery is a major part of the problem. The slim design forces us to use a bespoke battery, but we may be able to force a better price out of the supplier.

Disruptive technologies

Disruptive technologies involve the displacement of established technologies and generally brings about major change in industries. They can have the potential to create a new technology altogether. The fact that Grainger is a major manufacturer of mobile phones could mean that the company is a little too dismissive of the opportunities arising from disruptive technologies, such as the new battery.

It could be argued that the mobile phone industry is one in which the companies that take the lead in implementing and applying disruptive technologies will have an advantage over their competitors. It could be argued that most smartphones offer very similar functions and that there is very little real need for consumers to buy replacement phones. Arguably, a truly disruptive technology would have the capacity to create a desirable new product that could boost demand.

The whole point of a mobile phone is that it can operate wirelessly, powered by its internal batteries. It is well recognised that battery life is a major factor in determining how a phone can be used. If Grainger can develop expertise in a significantly improved battery technology then its mobile phones will have a massive advantage over competitors' products.

Thomas' concern appears to be that the Board is too heavily focussed on making a profit in the short term, without considering the long-term advantages that might follow on from a successful implementation of a new battery

technology. It may be that it would be in Grainger's long-term interests to develop this expertise, even if the Trams is not sufficiently profitable as an individual product. Any losses may be more than recouped when future phones use the new technology more effectively.
Thomas' basic argument appears to be that a battery with a higher capacity would do more than simply reduce the frequency with which phones had to be recharged. There would be scope for developing a new generation of apps and services that were constantly on and offering the user data and feedback. For example, the GPS tracking could be left on constantly and would measure factors such as the distance walked each day, the number of hours' sleep and so on. Thus, there would be no need to carry a fitness tracker.

Task 4

Effective team

Belonging to this team will involve a significant change to team members' jobs and possibly their ongoing careers. It will require them to spend roughly one day a week out of their departments, working on product development. That may lead to them being passed over for promotion because they will not be committed to their jobs.

One response to that challenge would be to seek volunteers for team membership. Ideally, team members will be motivated by their interest in product design or be looking for fresh challenges and so would be willing to accept being on a slightly different career trajectory.

There is a risk that team members will view themselves as representing their respective departments, which could create tension and lead to unhelpful discussions. This might be a particular problem for the team members from R&D, who may feel defensive about giving other departments oversight of responsibilities that were previously the responsibility of the research and development department.

The most effective response to this would be to ensure that the team is evaluated on the results that it produces, with regular reports to the Board about discussions and progress towards the development of new products. The team's convener could be the representative from R&D and he or she could be required to report directly to the Board on, say, a quarterly basis.

The nature of the team is that team members may struggle to communicate with one another, given that they will have different backgrounds and their interests in new products will be very different. The R&D representative may be the only one to understand the technical issues associated with the development of a new product and the Sales representative may be the only one who understands the marketing issues.

This challenge might be addressed by insisting that communication is informal and focusses on the commercial issues rather than the underlying technical matters. For example, if Finance produces a discounted cash flow analysis, it

will be presented and explained in a manner that will be readily understood by colleagues from non-accounting backgrounds.

Opportunity cost

It could be argued that the opportunity cost of diverting senior managers will be borne by Grainger overall rather than the individual departments that they represent. If, say, the work done by Sales is less effective because a senior manager has been working on product development rather than marketing then the impact on revenue will affect the entity as a whole rather than the Sales Department.

It may be difficult to measure the opportunity cost to individual departments because that may be a simple matter of reallocating duties, with more routine work being passed down the department. For example, an assistant might be asked to take over responsibility for the preparation of a routine report and an aspect of the assistant's work passed down to an intern. The cost to the department could be minimal, especially if the team members choose to retain most of their present responsibilities and simply work harder or more efficiently to carry on as before.

Any differences between the charges made by different departments could cause resentment and friction between the team members themselves. A manager whose department negotiated a higher transfer price could regard colleagues from other departments as inferior, which could undermine the effectiveness of the team. Even charging the transfers on the basis of, say, a proportion of managers' salaries could be counter-productive because team members could infer some seniority on the basis of their respective salaries.

Finally, departments might not suffer any net opportunity cost because they will benefit from having their interests represented in the product development process. For example, Production will be able to identify difficulties in manufacturing potential products and have the designs modified, or even abandoned altogether on the grounds that they would be too difficult to make. The Departments could actually benefit from the secondment of those managers and so it may be regarded as illogical that they are being compensated by an internal charge.

About this marking scheme

This marking scheme has been prepared for the CIMA 2019 professional qualification question tutorial.

The indicative answers will show the expected or most orthodox approach; however the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

A marking scheme is a working document and will evolve during marking standardisation – this document, of course, has not been subject to that process. The marking scheme CIMA will publish after examinations will include any amendments which are discussed and agreed during marking standardisation.

General marking guidance as would be given to markers is given below to aid with understanding of how the scheme should be applied. It should also be noted that markers would also be subject to extensive training and standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

This document is provided to help students and learning partners understand the guiding principles behind the marking of case study examinations for the 2019 professional qualification. However, care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded and full marks should be awarded when all level descriptor criteria are met.
- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks.
- Markers should mark according to the marking scheme and not their perception of where the passing standard may lie.
- Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. **Read the candidate's response in full**
2. **Select the level**
   - For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
   - The response does not need to meet all of the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
   - If the work fits more than one level, judge which one provides the best match.
   - If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.
3. **Select a mark within the level**
   - Once you have selected the level, you will need to choose the mark to apply.
   - A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
   - If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each task

Sub-task	Core Activity	Sub-task weighting (% section time)
Section 1		
(a)	C. Manage performance and costs to aid value creation	50%
(b)	B. Implement senior management decisions	50%
Section 2		
(a)	D. Measure performance	60%
(b)	E. Manage internal and external stakeholders	40%
Section 3		
(a)	C. Manage performance and costs to aid value creation	40%
(b)	A. Evaluate opportunities to add value	60%
Section 4		
(a)	B. Implement senior management decisions	50%
(b)	E. Manage internal and external stakeholders	50%

SECTION 1

Sub task (a): Significant risks I need a report from you on the significant risks associated with committing ourselves to proceeding with the launch of Trams in February 2020.			
Trait			
Risk identification	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies a single relevant risk or some insignificant risks	**1**
	Level 2	Identifies some relevant risks	**2-3**
	Level 3	Identifies a good selection of relevant risks	**4**
Risk explanation	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Analyses, to a limited extent, risks arising in the scenario	**1-2**
	Level 2	Analyses, in a clear and logical manner, risks arising in the scenario	**3-5**
	Level 3	Analyses, in a clear, logical and comprehensive manner, the risks arising in the scenario	**6-8**
Sub task (b): Project management I am also keen to learn any lessons that we can from this case. Please give me your views on the errors that we made in managing the project.			
Trait			
Identify errors	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies a single serious error	**1**
	Level 2	Identifies some serious errors	**2-3**
	Level 3	Identifies a good selection of serious errors	**4**
Explain errors	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Analyses, to a limited extent, errors in project management that have been identified.	**1-3**
	Level 2	Analyses, in a clear and logical manner, errors in project management that are apparent from the scenario	**4-6**
	Level 3	Analyses, in a clear, logical and comprehensive manner, the errors in project management that are apparent from the scenario	**7-9**

SECTION 2

Sub task (a): Accounting treatment I need you to draft a report that recommends the accounting treatment of each element of the work done to date on Trams identifying any additional information that you will require in order to finalise your recommendation.			
Trait			
Criteria	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Explains the relevant accounting regulations to a limited extent	**1-2**
	Level 2	Explains most of the relevant accounting regulations, including the accounting standard and the criteria that it imposes, or identifies all but offers a limited explanation	**3-4**
	Level 3	Explains all relevant accounting regulations, including the accounting standard and the criteria that it imposes	**5-6**
Application	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Produces a limited explanation of the application of the accounting regulations to the expenditure.	**1-3**
	Level 2	Produces a clear, but partial, explanation of the application of the accounting regulations to the expenditure.	**4-6**
	Level 3	Produces a clear and comprehensive explanation of the application of the accounting regulations to the expenditure.	**7-9**
Sub task (b): Integrated report I also need your report to explain how the work done on Trams should be reflected in Grainger's integrated report Your report should explain which capitals, other than financial, will be affected by this work and should indicate the effect on those capitals.			
Trait			
Capitals	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies a single relevant capital and offers some justification for its selection	**1**
	Level 2	Identifies some relevant capitals and justifies their selection	**2**
	Level 3	Identifies a good selection of relevant capitals and justifies their selection	**3**
Treatment	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Prepares some explanation of the treatment of relevant capitals in the integrated report.	**1-2**
	Level 2	Produces a clear explanation of the treatment of relevant capitals in the integrated report.	**3-5**
	Level 3	Produces a clear and comprehensive explanation of the treatment of relevant capitals in the integrated report.	**6-7**

SECTION 3

Sub task (a): Target costing Please draft a paper for Thomas that sets out the challenges associated with his proposed target costing exercise and indicates how his engineers would be expected to contribute to it.			
Trait			
Challenges	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Produces a limited explanation of challenges associated with achieving target cost	**1**
	Level 2	Produces a clear and sensible explanation of challenges associated with achieving target cost in this scenario	**2-3**
	Level 3	Produces a clear, sensible and comprehensive explanation of the challenges associated with achieving target cost in this scenario	**4-5**
Responses	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Produces some logical response to one of the challenges.	**1**
	Level 2	Produces a clear and logical response to challenges arising from the scenario.	**2-3**
	Level 3	Produces a clear, logical and comprehensive response to the challenges arising from the scenario.	**4-5**
Sub task (b): Disruptive technologies Your paper should also address Thomas' point about the need to consider disruptive technologies differently from established technologies when evaluating potential new products.			
Trait			
Distinguish	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes disruptive technologies.	**1**
	Level 2	Lists some disruptive technologies in the context of this business model.	**2-3**
	Level 3	Lists several disruptive technologies in the context of this business model.	**4**
Discuss	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Produces some response to the assertion that disruptive technologies ought to be treated differently when evaluating product ideas.	**1-3**
	Level 2	Produces a clear and logical response to the assertion that disruptive technologies ought to be treated differently when evaluating product ideas in this industry.	**4-7**
	Level 3	Produces a clear, logical and comprehensive response to the assertion that disruptive technologies ought to be treated differently when evaluating product ideas in this industry.	**8-11**

SECTION 4

Sub task (a): Team building Please draft a paper that I can incorporate into my proposal that indicates the challenges associated with ensuring that my proposed team will be effective.			
Trait			
Challenges	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes problems associated with inter-departmental teams.	**1-4**
	Level 2	Communicates, in a clear and logical manner, the challenges facing the effectiveness of the proposed team	**5-8**
	Level 3	Communicates, in a clear and logical manner, the challenges facing the effectiveness of the proposed team, taking account of the rivalries, different perspectives and historical reliance on the R&D Department.	**9-12**
Sub task (b): Transfer pricing My proposed team will be acting in support of the Research and Development Department. I believe that we will have to charge a realistic transfer price from Sales, Finance and Production to Research and Development and that should be based on the opportunity cost to those departments of seconding a senior manager for five days per month. I need your paper to identify the challenges associated with determining those opportunity costs and suggest how those challenges might be overcome.			
Trait			
Identify	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies a few problems with no justification or a single problem with some justification	**1**
	Level 2	Identifies some problems and justifies their selection	**2-3**
	Level 3	Identifies a good selection of problems and justifies their selection	**4**
Overcome	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Produces a limited response to overcoming the problems associated with determining opportunity costs	**1-3**
	Level 2	Produces a clear and logical response that would overcome the problems associated with determining opportunity costs.	**4-7**
	Level 3	Produces a clear, logical and comprehensive response that would overcome the problems associated with determining opportunity costs.	**8-11**

MANAGMENT CASE STUDY PROTOTYPE EXAM ANSWERS

Variant 2

These answers have been provided by CIMA for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

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

Task 1

Key negotiation issues and why they matter

The unit price charged to Thorp will be a key issue for negotiation because both parties' interests diverge in the sense that the agreed price will have a significant impact on the profit earned by the two companies. Both companies appear to expect a high consumer demand and so even a small adjustment to the price will be significant. Grainger is in a particularly vulnerable position because it cannot sell the new phone to anyone else, which could lead to a major opportunity cost if it sells the phones for too little. Similarly, Thorp may be unable to sell at an attractive retail price if it agrees to pay too much to Grainger. Thus, there is a need to aim for a win-win outcome.

Thorp's management and promotion of Rapide will also be a matter for negotiation and agreement. Grainger will be unable to sell the phone to any other network until a year after Rapide's launch and so it will only profit if Thorp sells Rapide in volume. The two companies will have to negotiate an acceptable compromise over the extent to which Rapide will be promoted. Thorp will wish to retain some flexibility in case consumer demand for Rapide is weaker than expected or another manufacturer develops a competing phone that might be sold in even greater volume or at a higher profit. Grainger must ensure that Thorp aims to maximise sales of Rapide, or at least commits itself to selling Rapide in sufficient quantity to compensate for the agreement to give Thorp exclusive rights.

The length of the overall contract will have to be agreed, with a further agreement as to when the opportunity for a renegotiation will be inserted. At present, the contract appears to roll over if Grainger launches a new phone within the year after Rapide's launch and it could even apply to new phones developed after that. Grainger may be unwilling to commit itself to giving Thorp exclusivity into the indefinite future because other networks may be prepared to offer a better deal if the launch of Rapide is as successful as hoped. Thorp may

not necessarily wish to be tied to any commitments that it has to make to Grainger with regard to any future models that it launches. The two companies should agree to discuss the contract at, say, the end of the first year.

Grainger's relationship with other networks will have to be part of the agreement. It would appear that Grainger will continue to sell phones other than Rapide to the other networks and could, in theory, sell new models that do not use the patented antenna as well. That could be a source of friction between Grainger and Thorp if, for example, Grainger were to start offering large discounts on its existing models so that other network could sell them cheaply and in high volume. Or if a new model was developed that did not use the patented antenna but that had some other major selling point. Thorp will not wish to have sales of Rapide undermined by such behaviour and Grainger will not wish to be prevented from earning revenue.

Effect of agreement on value chain

The agreement should simplify inbound logistics and operations in terms of manufacturing phones prior to the launch of Rapide. Thorp will be prepared to commit itself to a sizeable initial order in order to ensure that the launch itself is a success and that customer demand is met, at least as far as possible. That should enable Grainger to schedule production in time for the launch, secure in the knowledge that Thorp will place a formal order for that quantity.

Grainger can make best use of that relationship by working as closely as possible with Thorp's marketing department to agree an ongoing production schedule that rolls forward throughout the year after launch. That should enable Grainger to meet anticipated demand without having to disrupt operations or put suppliers under pressure for components and without making too many units and so tying up cash.

Thorp will have an incentive to invest heavily in marketing and sales and so might reduce the pressure on Grainger to promote the new phone. Thorp is closer to the retail customers who will actually buy and use the phone and so Thorp will have the expertise to market the phone effectively.

Grainger should work closely with Thorp in order to make best use of the arrangement for marketing purposes. Grainger should aim to articulate its own promotional activities with Thorp's, with a view to maximising the demand for Rapide. It may be possible for the two companies to promote one another for the duration of the exclusivity.

Support activities could also be enhanced, particularly in terms of technology development. Thorp will have detailed knowledge of how Rapide is being used and will be able to obtain feedback from customers. Thorp may be able to provide better feedback and suggestions for new product features because of that association and will have a greater incentive to assist Grainger because of the exclusivity agreement.

The best way to exploit this opportunity would be to work with Thorp in seeking feedback on specific changes that Grainger is considering for the future. That would then enable Thorp to seek targeted feedback on potential changes. The value of that feedback would be enhanced by the fact that Thorp has access to customers who already own Grainger's latest product and so can interact with potential future customers for future designs.

Task 2

Business risks for Grainger and Thorp

The biggest risk facing Grainger is that the other networks may respond to the exclusive deal with Thorp by withdrawing Grainger's other phones from sale through their networks. They may also be reluctant to sell Rapide once the twelve-months of exclusivity enjoyed by Thorp has expired. The networks may wish to minimise Thorp's advantage by reducing the exposure enjoyed by Grainger's products. They may also be unwilling to start selling Grainger's latest models a full year after their launch.

The biggest business risk faced by Thorp is that the Rapide will not be as popular as envisaged. The phone is technically superior to competing products because of the speed of its downloads, but customers might not find that feature sufficiently desirable to buy that phone in large quantities. This market is driven by fashion as much as anything else and so customers may not be attracted by innovations that may be seen to add very little to the overall desirability of a phone.

The fact that the risks differ could affect the stability of the agreement between Grainger and Thorp. Grainger may be keen to minimise the damage done to its relationship with other networks, who are Thorp's rivals. That could encourage Grainger to spend more on marketing models other than Rapide in order to maintain demand for the phones sold by the other networks, which could damage Thorp's sales of Rapide.

Thorp, on the other hand, may wish to promote the fact that it was chosen as the launch partner for Rapide by implying that it is Grainger's preferred network in its marketing of the new phone. That could have the effect of increasing any alienation between Grainger and the other networks. Overall, the responses to the differing business risks could prove mutually harmful to Thorp and Grainger.

Should Grainger support Thorp's intention to use price-skimming?

To an extent, it could be argued that Grainger has no direct interest in the retail price charged by Thorp. Thorp is responsible for selling the phones and the retail price is not, at least in theory, relevant to the price charged to Thorp by Grainger. Clearly, though, if the price-skimming leads to overpricing then demand will be reduced to an unacceptable level and Grainger's sales volume will be reduced. The only advantage to Grainger is that the higher retail price will reduce pressure to charge Thorp a lower unit cost for its phones. If Grainger argues for a lower retail price then Thorp may use that as a justification for paying Grainger less.

The mobile phone market is generally associated with networks selling phones at significant discounts in order to attract customers into signing service contracts. Customers are used to getting new phones for no initial payment or a very small charge. A price-skimming approach might be viewed as a change to the business model that might confuse customers. If the initial selling price is

set too high then the launch will be a disaster and could undermine consumer confidence in the phone.

The manner in which the price-skimming is applied will be a factor in its success. It may be that Thorp simply intends to sell the phone at a smaller discount than customers are used to, rather than selling Rapide at a traditional retail price that exceeds the price paid to Grainger. If the launch is managed effectively then the

The only other concern is that Grainger's credibility may be harmed if the faster connection speeds offered by Rapide are insufficient to attract sales at the initial price point. In that case, the story will be that Grainger exaggerated the benefits that its new phone would offer and so the company could be viewed as misjudging and misunderstanding its market. That could undermine demand for the phone, even once the selling price is reduced. It could also undermine the credibility of future phone launches.

Task 3

Communicating with customers of Rapide

The first challenge is that the customers have already had a confusing and conflicting announcement from Thorp that it is recalling all Rapide phones. Our position is that only 5% of the phones sold to date are defective, but any comment that we make to that effect will be viewed as self-interested and will lack credibility. Customers will often be heavily reliant on their mobile phones and so they will be very concerned about the possibility that their phones could be defective and might let them down at an inconvenient time.

The second challenge is that this story is likely to be reported widely in the press. That will encourage users whose phones have failed to make posts on social media. Again, that will have the effect of creating the impression that the problem is more widespread than it actually is and that Rapide is a defective product. Stories about customers being affected by a defective product will be far more newsworthy than any responses put forward by the company that sold that product and so it is debateable whether Grainger's responses will attract much attention.

Overcoming the first challenge would be best accomplished by actively encouraging all customers to download the app as soon as possible. If it has not already done so, Grainger should ensure that the app has a clear interface and offers a diagnosis that can be easily read and understood. Ideally, the app should direct the customer to a website or contact telephone number in the event that the phone fails, so that customers can report their problems easily. Grainger should work with Thorp to ensure that affected customers can easily make contact. For example, websites should have sufficient bandwidth and contact centres sufficient lines to enable customers to get through.

The second challenge will require careful management of any contact with the media. Grainger should instruct all senior managers to refer all requests for comment to a designated contact, such as a press office on Grainger's marketing department. All managers and staff should be instructed not to make any comments about the problems with the phone unless they are trained and briefed on discussion points. Grainger should accept responsibility for the fault, but should avoid making things worse by offering ill-judged responses.

Relevance of figures and accounting treatment of claim

The first figure of D$2,980 million is a significant amount, equivalent to 7.5% of 2018 revenue. It seems highly unlikely that we will ever be required to pay such a large amount. It could be argued that the amount reflects an overreaction by Thorp to the problems with some of the phones and that the potential costs of the returns are largely due to Thorp's negligence rather than the technical problems with Grainger's phones. Nevertheless, we do have the threat of a claim against us for that amount and so IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* would require us to show that as a contingent liability.

The D$164 million that we have offered to Thorp is 0.4% of revenue, which is not quite a material sum, but it is a significant amount. It has no particular

significance from a financial reporting perspective because we will almost certainly not be making a payment of that amount to Thorp. It has been offered as a counter to Thorp's much larger claim as a part of the ongoing negotiations. The D$164 million will not be reported, but it may suggest that any provision that is made would be for at least that amount.

Our starting point in deciding the accounting treatment should be to discuss the likely outcome of this case with our lawyers. If they can use their understanding of similar cases to estimate the likely cost of settling this claim then we can consider whether that estimate is sufficiently reliable for us to recognise it in the financial statements as a provision. In this context, reliability should be judged from conversation with the lawyers. If they are unwilling to commit themselves to a realistic estimate then we cannot make a provision.

If the lawyers are unwilling to commit to a provision then we will have to account for the claim as a contingent liability. The claim would have to be described in a note to the financial statements so that the shareholders were made aware of the possible consequences of the claim. In indicating the financial impact of the claim we would still have to offer a realistic estimate of the upper limit. Hopefully, we will have had some success in our negotiations by the time that we are finalising the financial statements and our note will reflect the amount that is actually being claimed rather than the opening bid of D$2,980 million.

Task 4

Funding investment using debt or equity

The first question we need to consider is whether we need to raise fresh funds for this investment. At the end of the 2018 financial year, Grainger had a very high cash balance that would be sufficient to enable the software to be purchased. If Grainger took that approach then the cash used would have been funded by a mixture of debt and equity and so that same mixture would apply to the D$500 million. If Grainger can afford to invest using existing cash balances then there will be no issue or transaction costs associated with raising fresh funding and so the overall cost would probably be reduced.

Grainger is funded largely by equity, which means that the company has a very low gearing ratio. That suggests that it would not be a particular concern if the company took out a loan because the gearing ratio would increase from 11% to 13%, both figures being low enough to cause little or no concern. Debt is generally cheaper than equity, so it would make sense to use the cheaper source.

The nature of the asset would have some relevance to the funding decision, assuming that fresh finance is to be obtained. The fact that the D$500 million is to be invested in the purchase and installation of software means that lenders are likely to be unwilling to secure a loan against the software itself. The lender will require security, but that will have to be against more suitable assets such as PPE, which may reduce the scope for raising debt in the future.

It would prove inconvenient and expensive to issue shares for D$500 million, which is a relatively small increase in equity for Grainger. The company would incur significant legal and professional fees to make the issue and the shareholders might be confused as to the reason for seeking additional funding from them.

Challenges of managing time and resources and how to address them

Managing time will be complicated because we will have to decide how the production system is going to be reorganised in order to permit the software to operate properly, with accurate tracking of items of inventory. Paradoxically, it will be the simpler and cheaper items that will require the greatest effort because they will not carry identifying marks or serial numbers. Grainger's production staff will have to learn how the software operates and will have to deliver a plan to bring the factory into line with the needs of the system.

Resources will be a problem because Grainger's managers and staff are likely to be fully occupied as it is with the ongoing operations and so the availability of staff might be an issue. That could be especially true with regard to the IT staff who will be responsible for making any changes to the software that runs the factory as it is. Their time is likely to be scarce.

One approach to resolving the timing issue would be to engage a consultancy firm that has experience in the implementation of this software. The consultants

wouldn’t necessarily have direct experience of factories such as Grainger’s but they should be capable of making informed estimates despite that. There is, in any case, no specific deadline that creates a sense of urgency for this, other than a desire to put the software to use as quickly as possible.

Realistically, the only way to ensure that there are adequate resources for the implementation of this system would be to create a project team and, ideally, release them from their existing duties. It may be possible to cover for them by seconding staff from other departments where possible and by creating temporary promotions so that more junior staff are given responsibility for the project team members’ roles. Failing that, it may be necessary to ask some team members to do their best to cope with the project in addition to their existing duties, but to give priority to the project.

About this marking scheme

This marking scheme has been prepared for the CIMA 2019 professional qualification question tutorial.

The indicative answers will show the expected or most orthodox approach; however the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

A marking scheme is a working document and will evolve during marking standardisation – this document, of course, has not been subject to that process. The marking scheme CIMA will publish after examinations will include any amendments which are discussed and agreed during marking standardisation.

General marking guidance as would be given to markers is given below to aid with understanding of how the scheme should be applied. It should also be noted that markers would also be subject to extensive training and standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

This document is provided to help students and learning partners understand the guiding principles behind the marking of case study examinations for the 2019 professional qualification. However, care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded and full marks should be awarded when all level descriptor criteria are met.
- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks.
- Markers should mark according to the marking scheme and not their perception of where the passing standard may lie.
- Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. **Read the candidate's response in full**
2. **Select the level**
   - For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
   - The response does not need to meet all of the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
   - If the work fits more than one level, judge which one provides the best match.
   - If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.
3. **Select a mark within the level**
   - Once you have selected the level, you will need to choose the mark to apply.
   - A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
   - If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each task

Sub-task	Core Activity	Sub-task weighting (% section time)
Section 1		
(a)	E. Manage internal and external stakeholders	40%
(b)	C. Manage performance and costs to aid value creation	60%
Section 2		
(a)	D. Measure performance	40%
(b)	A. Evaluate opportunities to add value	60%
Section 3		
(a)	E. Manage internal and external stakeholders	50%
(b)	D. Measure performance	50%
Section 4		
(a)	B. Implement senior management decisions	50%
(b)	B. Implement senior management decisions	50%

SECTION 1

Sub task (a): Negotiation Identify the key issues that we will have to negotiate with Thorp, explaining why they matter to both companies.			
Trait			
Issues	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies a single relevant issue for negotiation	**1**
	Level 2	Lists some relevant issues for negotiation	**2-3**
	Level 3	Lists a good selection of relevant issues for negotiation	**4**
Matter	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Explains clearly why one of the identified issues matters.	**1-2**
	Level 2	Develops a clear and logical explanation of the significance of matters for negotiation arising from the scenario.	**3-4**
	Level 3	Develops a clear, logical and comprehensive explanation of the significance of the matters for negotiation arising from the scenario.	**5-6**
Sub task (b): Value chain Explain how the proposed agreement with Thorp might enhance Grainger's value chain and suggest how we might make best use of those enhancements.			
Trait			
Enhancement	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies a single way in which the company's value chain might be enhanced.	**1-2**
	Level 2	Lists some ways in which the company's value chain might be enhanced.	**3-4**
	Level 3	Lists a good selection of ways in which the company's value chain might be enhanced.	**5-6**
Optimise	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Offers a realistic explanation of how one of the identified opportunities might be exploited.	**1-3**
	Level 2	Develops a clear and logical explanation of how opportunities arising from the scenario might be exploited.	**4-6**
	Level 3	Develops a clear, logical and comprehensive explanation of how the opportunities arising from the scenario might be exploited.	**7-9**

SECTION 2

Sub task (a): Business risks Explain the business risks arising from this agreement for Grainger and Thorp and explain whether it matters that the business risks faced by Grainger and Thorp.			
Trait			
Risks	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies a single risk that will impact both parties.	**1**
	Level 2	Identifies some risks that will impact both parties.	**2-3**
	Level 3	Identifies a good selection of risks that will impact both parties.	**4-5**
Differ	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Explains, to a limited extent, the implications of the differences between the impacts of the risks on each of the parties.	**1**
	Level 2	Develops a clear and logical explanation of the implications of the differences between the impacts of the risks on each of the parties.	**2-3**
	Level 3	Develops a clear, logical and comprehensive explanation of the implications of the differences between the impacts of the risks on each of the parties, drawing on the scenario and business model.	**4-5**
Sub task (b): Price-skimming Explain whether Grainger should support Thorp's intention to adopt a price-skimming policy for the launch of the Rapide Smartphone.			
Trait			
Volumes	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Explains, to a limited extent, the manner in which the price-skimming strategy might impact on Graingers' sales volumes.	**1-2**
	Level 2	Produces a clear and logical explanation of the manner in which the price-skimming strategy might impact on Graingers' sales volumes.	**3-6**
	Level 3	Produces a clear, logical and comprehensive explanation of the manner in which the price-skimming strategy might impact on Graingers' sales volumes, drawing on the likelihood that sales might not be price-elastic given the attention paid to the new model.	**7-8**
Implications	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Explains, to a limited extent, the factors other than volume of the manner in which the price-skimming strategy might impact on Grainger.	**1-2**
	Level 2	Produces a clear and logical explanation of the factors other than volume of the manner in which the price-skimming strategy might impact on Grainger.	**3-5**
	Level 3	Produces a clear, logical and comprehensive explanation of the factors other than volume of the manner in which the	**6-7**

		price-skimming strategy might impact on Grainger, drawing on Thorpe's ability to respond to any problems.	

SECTION 3

Sub task (a): Communication with customers What challenges will Grainger face in communicating with the customers who have purchased the Rapide and how should those challenges be overcome?			
Trait			
Challenges	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Develops an argument that deals, to a limited extent, with the fact that customers will be disappointed in the behaviour of the product that they have bought.	**1-2**
	Level 2	Develops a clear and logical argument that deals with the fact that customers will be disappointed in the behaviour of the product that they have bought.	**3-4**
	Level 3	Develops a clear, logical and comprehensive argument that deals with the fact that customers will be disappointed in the behaviour of the product that they have bought and also are being confused by conflicting messages.	**5-6**
Responses	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Produces a communications strategy that will have some effect on the challenges.	**1-2**
	Level 2	Produces a clear and realistic communications strategy that will address the challenges.	**3-5**
	Level 3	Produces a clear and realistic communications strategy that will address the challenges, making a direct reference to the problems with B2C communication.	**6-7**
Sub task (b): Accounting for provision How should I explain the relevance for the 2019 financial statements of the figures of D$2,980 million and D$164 million to Grainger's Board and how should we decide on the accounting treatment of Thorp's claim?			
Trait			
Relevance	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Produces some explanation of the problem in terms of accounting standards.	**1-4**
	Level 2	Produces a clear and logical explanation of the accounting treatment that draws upon diverging values of the claims that the company must take into consideration.	**5-8**
	Level 3	Produces a clear and logical explanation of the accounting treatment that draws upon the business situation as well as the diverging values of the claims that the company must take into consideration.	**9-12**

SECTION 4

Sub task (a): Funding investment The software will cost us 0$500 million. How should we decide whether to fund that investment using debt or equity?			
Trait			
Debt	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Discusses issues relating to use of debt	**1-2**
	Level 2	Discusses issues relating to use of debt, taking account of the business	**3-4**
	Level 3	Discusses issues relating to use of debt, taking account of the business and the asset being funded	**5-6**
Equity	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Discusses issues relating to use of equity	**1-2**
	Level 2	Discusses issues relating to use of equity, taking account of the business	**3-4**
	Level 3	Discusses issues relating to use of equity, taking account of the business and the asset being funded	**5-6**
Sub task (b): Project management What are the challenges in managing time and resources for this project to ensure that the software delivers the expected benefits and how might those challenges be addressed?			
Trait			
Difficulties	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identify a single problem associated with managing this project.	**1-2**
	Level 2	Identifies some problems associated with managing this project.	**3-4**
	Level 3	Identifies a good selection of problems associated with managing this project.	**5-6**
Addressing	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Develops a clear and logical response to a single identified problem.	**1-2**
	Level 2	Develops a clear and logical response to identified problems.	**3-5**
	Level 3	Develops a clear, logical and comprehensive response to the identified problems.	**6-7**