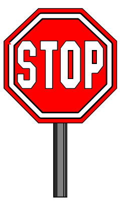
ACCA

Paper P5

Advanced Performance Management

December 2017

Mock B – Answers



To gain maximum benefit, do not refer to these answers until you have completed the revision mock questions and submitted them for marking.

1 GT AUTOS

Report

To: General Manager

From: Performance Management Consultant

Date: Today's date

Subject: New reward scheme proposals, motivation and ABM.

Introduction

This report discusses the potential behavioural consequences and the potential manipulation of actual results that could occur as a result of the new reward scheme proposals. Whenever reward schemes are proposed it is important to consider both the behavioural consequences and the manipulation that could occur without due controls. Human nature is sadly what it is and personal gain can override ethical codes.

The report also examines how GT Autos can motivate its managers to achieve its performance targets and examines the use of an activity-based management approach.

(a) (i) Salespeople

Volume based scheme

Behavioural aspects

This scheme will certainly motivate the salesmen to sell more cars depending on the amount per car offered of course. A large amount will obviously motivate more but will exacerbate the issues below too.

There appears an equal motivation on new and second hand cars (a fixed payment per car) and so this might encourage the salesmen to focus on second hand cars that might be cheaper and might sell at higher volumes as a result. This might not be desirable. The margins will be different and servicing work is more guaranteed with new cars due to warranty conditions.

With the salesmen having some price flexibility there is a danger that they will reduce car prices as much as they can to secure the sale. The reward scheme suggests only volume is the determinant factor. Lots of low value sales will maximise the salesmen's rewards but might not suit the business as a whole. Indeed losses could be made without penalty.

With factory fitted extras speeding up the process and hence the sale it is possible that salesmen would choose this option despite the higher margin made on dealer fitted versions.

All the above is particularly true if a salesman has sold 4 cars or less as this is the trigger point for rewards to begin.

Manipulation

It is difficult to manipulate a volume figure in that a sale counts as 1 each time. However the manipulation could occur in the timing of the recorded sale.

	Month 1	*Month 2*
Actual sales	24	18
Manipulated sales	22	20

If the salesman has met their extra fixed bonus in month 1 they could try to manipulate the recorded date of sale to push the date of sale back in to the following month. In this way they are more likely to earn an extra bonus in both months. This could easily be achieved by telling the customer that the car is not ready for collection when in fact it is. This could push back collection and hence sale in to the following month.

Percentage reward on sales value

Behavioural aspects

This method seems to encourage the sale of the big-ticket items and might encourage the salesmen to sell more new cars. This might be desirable as mentioned above (compulsory servicing) but there is no margin figures given so we cannot be sure.

Also the value of the sale is a little more protected, as big discounts to secure a sale would also damage the value of the reward. This means that less discounts are likely to be offered.

As no consideration is given on margin within the rewards system it is reasonable to assume the salesmen would ignore that.

Manipulation

The major manipulation here surrounds the split of the invoice between the value of the car and value of the servicing. The temptation would be for the salesmen to record a lower value for the servicing so as to maximise the value of the recorded sale of the car. This will maximise the reward but damage the relationship between the departments and dampen the repairs and servicing results.

(ii) Service and repair technicians

Fixed payment per car based on throughput

Behavioural aspects

This reward scheme encourages quantity not quality. It is possible that cars might be returned to customers that are not ready. This could be dangerous or at the very least damage GT Autos reputation. There appears to be no penalty for re-worked cars or second visit cars and so if a car is returned and then comes back the repair and service technicians get rewarded again.

Also it is possible that the department will turn down complex work that might take a long time to complete. The rewards system favours small jobs, which, incidentally, might be low margin work.

It is also possible that easy jobs will be focussed on towards the end of the day rather than the important job since they might feel that they can finish a lot of small jobs if they sacrifice the one complex one.

Manipulation

The obvious manipulation here is surrounding the cause of the delays. It is likely that the cause of delays will be blamed on late delivery of parts and this might damage supplier relationships.

Percentage of the margin

Behavioural aspects

On the face of it a margin based scheme produces more rounded pressure on behaviour with a focus on maximising sales value and reducing costs and in that way it might have a better effect on behaviour than an exclusive sales focussed scheme.

The temptation might be however to overcharge for repairs undertaken and this if it becomes known would damage GT Autos' reputation. Equally unnecessary repairs might be carried out particularly those that deliver high margin.

The other clear behavioural effect could be the use of non-OEM parts. These are cheaper and thus give higher margins particularly if passed off as genuine parts. Customers are very unlikely to be aware that a non-OEM part has been used since most will not venture under the bonnet given how complex cars have become.

Manipulation

Given losses are ignored the temptation would be to allocate parts to a different job if that job is already loss making. Losses on jobs would presumably be unusual so this may not be a significant problem as it is probably just too obvious.

(iii) Finance Staff

Percentage of reported profit

Behavioural aspects

This is a very bad idea. The accountant's job in a finance team is to report the true position and present it in a fair way. The effect of this reward scheme is to bring a pressure to report overstated profit and this can be achieved by skilful manipulation.

Manipulation

Accounting is not an exact science and there are a variety of techniques that can be and are commonly used to misstate financial results. These may include:

1. Cut off

The basic principle here is that sales should be matched against the cost of those sales. This means there should be consistency of treatment in the accounting period between purchases, inventory (stock) and sales thus:

In the table IN means recorded within the accounting period, but EX means not recorded in the accounting period but recorded in another earlier or later period.

	Purchases	*Inventory*	*Sales*
Correct 1	IN	IN	EX
Correct 2	IN	EX	IN
Error 1	IN	IN	IN
Error 2	IN	EX	EX
Error 3	EX	IN	IN or EX

The first two show correct and consistent treatment.

Error 1 shows inventory still included but the sale has been recorded. This will overstate profit and hence reward.

Error 2 shows the purchase recorded but the goods are not in inventory or been sold. This will understate profit admittedly.

Error 3 shows an unrecorded purchase invoice to overstate profit.

All these errors are easy to do (by accident or deliberately) and rely on the honesty of the accounting staff or the skill of the auditor to detect them.

2. Accruals and Prepayments

Most accounting is not carried out on a cash basis. The accountant should instead use an accruals basis matching the expense to the period regardless of the cash flow position.

By ignoring an accrual, an expense will be understated and reported profit will be too high. Equally the miscalculation of a prepayment can be used to understate an expense.

3. Provisions

This is one of the most vulnerable to abuse. The future is an uncertain place and the accountant has to estimate likely results and reflect the cost or revenue in the accounts. For example GT Autos will have warranty claims against it and will have to provide accordingly. As the occurrence of the claim has not happened it will have to be estimated and this is easy to manipulate. Too high a provision brings in too much cost and understates profit. Too low a provision has the opposite effect.

Conclusion

The introduction of variable rewards can have a positive effect on the business but the suggested measures need to be amended. If you require further help with this please do contact me.

Key answer tips

It is important that you are able to examine the implications of a change of reward system. This question contains a very detailed set of requirements and although the real exam may not contain a 30 mark requirement on this area the answer gives you some fantastic ideas that can be tailored to the scenario given in the real exam.

(b) Motivation

Vroom argued that the strength of someone's motivation to do something (Force) depended on their desire for the outcome (Valence) and their belief that it was obtainable (Expectancy).

He expressed the relationship as an equation:

Force = Valence × Expectancy

This demonstrates that if either of the latter aspects were missing then there would be no motivation to act.

This suggests that if GT Autos wishes to motivate its managers to achieve its performance targets it must set up a reward system which will do two things:

- Offer the managers rewards that they desire (valence)
- Set targets that managers believe are achievable and therefore provide a realistic chance of achieving the desired reward (expectancy)

To offer appropriate rewards GT Autos will need to know their managers' wishes. Bonuses are a simple choice of reward but it may be that staff would prefer other things such as additional paid holidays or a promotion and this will need to be taken into account when the reward system is established.

To ensure that staff believe they can achieve the rewards offered, the performance targets must be determined in consultation with those managers who understand the opportunities and constraints on the business, and take account of changing environmental factors.

Provided targets are realistic and deemed achievable and the rewards offered match the needs of the staff, managers should be motivated to achieve the targets set.

Tutorial note

This is a minor syllabus area but remember that the examiner could test any part of the syllabus. Do not try to question spot.

(c) Activity-based management

Many businesses have introduced activity-based costing (ABC) in the hope of achieving a more accurate product cost. However, the information provided by ABC could have a much wider use for GT Autos.

Activity-based management (ABM) is the entire set of activities that can be taken on a better informed basis using ABC information.

The **initial stages** are the same as for ABC:

- **Step 1: Group production overheads into activities** – GT Autos will need to identify and prioritise its activities (it won't be efficient to focus on all activities). Significant activities may include, for example, ordering costs charged by the car manufacturers or ordering costs relating to replacement parts.
- **Step 2: Identify a cost driver for each activity** – ABM recognises that the cost of an activity is not necessarily related to volume of output. For example, a cost driver for ordering costs charged by the manufacturer may be sales of new cars.
- **Step 3: Calculate an overhead absorption rate (OAR) for each activity** – by taking the activity cost and dividing this by the cost driver information.
- **Step 4: Absorb the activity costs into the product** – ABC absorbs the cost of each activity among different products based on the use of drivers by each product.

There are two main types of ABM:

- **Operational ABM** – this relates to making GT Autos more efficient by reducing the cost of activities and eliminating those activities that don't add value. ABM can be used alongside performance management improvement strategies, such as Total Quality Management, Six Sigma and Business Process Re-engineering.
- **Strategic ABM** – this involves deciding which services GT Autos should provide (based on the more accurate measurement of cost and hence profit) and determining more accurately the profit or loss generated by each customer.

Evaluation of ABM

ABM could have a number of benefits for GT Autos:

- It ensures that only feasible courses of action are taken.
- It may eliminate the need to carry out certain activities.
- It may lead to improvements in customer relationships and in the services offered.

However, GT Autos must consider its suitability:

- GT Autos should begin by performing an analysis of its costs. ABM is only beneficial for organisations with a high proportion of indirect costs.
- The cost of allocating overheads to activities and identifying cost drivers may be too high.
- Some activities will have an implicit value which is not necessarily reflected in the financial value, for example the provision of training and support.

Tutorial note

Be sure to answer both parts of the requirement. The first part relies heavily on book knowledge but do relate your explanation back to GT Autos. The second part asks for an evaluation and therefore both the possible benefits and drawbacks for GT Autos should be examined.

Marking scheme

		Marks
(a)	Salesman and Service schemes – max 5 marks per scheme split 3 to 2 between behavioural and manipulation	20
	Finance staff – max 3 marks for comment on behaviour and maximum 7 marks for ideas on manipulation	10
	Maximum	30
(b)	2 marks for an explanation of Vroom	
	Up to 3 marks for application of theory to GT Autos	
	Maximum	5
(c)	Up to 6 marks for explanation of ABM	
	Up to 6 marks for evaluation of ABM	
	Maximum	11
Marks for structure of report, quality of argument, etc.		4
Total		**50**

2 PAK

(a) The quoted ROIs have been calculated as follows:

ROI = [Operating Profit/Capital employed] × 100

	North Division	*South Division*
	$000	$000
	$\frac{639.2}{3,196}$	$\frac{368}{4,600}$
	20%	**8%**

The ROIs have been calculated on the basis of divisional operating profit: that is, after a deduction of the apportionment of head office (HO) costs. It may be argued that the deduction of these costs is incorrect for performance appraisal as:

- There will be an element of **subjectivity** in the apportionment exercise; and
- The level of HO costs is not strictly under the **control** of the divisional management.

It may therefore be preferable to restate the ROI on the basis of operating profit before HO cost apportionment. This will result in the following ROI's:

	North Division	*South Division*
	$000	$000
	$\frac{639.2+150}{3,196}$	$\frac{368+280}{4,600}$
	25%	**14%**

This assumes that all other items in the profit statement are controllable at divisional level.

In fact this may not be the case; for example, HO may control a certain part of the capital investment decisions.

Key answer tips

The calculations in parts (a) and (b) are reasonably straightforward. If you are not comfortable with these you must review the text again – the level of difficulty may be greater in the exam.

(b) Applying PAK's cost of capital to divisional capital employed and deducting the interest on capital (cost of capital × divisional capital employed) from the controllable divisional profit gives the following:

	North Division	*South Division*
	$000	$000
Operating profit	639.2	368
Add HO apportionment of costs	150	280
Controllable divisional profit	**789.2**	**648**
Less Interest on capital employed	319.6	460
Residual Income (RI)	**469.6**	**188**

RI suggests the same relative position between the two divisions as ROI, i.e. that the North Division has outperformed the South. However, a 'snap' judgement like this could be misleading, as it is based upon very limited information.

(c) **Additional financial indicators:**

	North Division	*South Division*
Variable production costs to sales as a percentage	$\frac{370.8}{2,060}$	$\frac{234}{1,950}$
	18%	12%
Variable selling and distribution to sales as a percentage	$\frac{160}{2,060}$	$\frac{78}{1,950}$
	8%	4%

These ratios compare costs, which fluctuate depending on production/sales levels, to the revenues made on those products. Useful since the ratios relate the specific costs to the revenues they generate.

Contribution to sales as a percentage	$\frac{1,529.20}{2,060}$	$\frac{1,638}{1,950}$
	74%	84%

A useful ratio measuring how efficiently each division can produce and sell each product and maintain low levels of variable costs.

Fixed production costs to sales as a percentage	$\frac{300}{2,060}$	$\frac{720}{1,950}$
	15%	37%
Fixed selling and distribution to sales as a percentage	$\frac{200}{2,060}$	$\frac{110}{1,950}$
	10%	6%
Fixed admin to sales as a percentage	$\frac{240}{2,060}$	$\frac{160}{1,950}$
	12%	8%

These ratios compare costs that are fixed to the revenues that are generated. The higher the percentage, the higher the level of risk for the division since fixed costs must be covered regardless of the level of sales.

Controllable operating profit to sales as a percentage	789.2 / 2,060	648 / 1,950
	38%	33%

This ratio looks at the operating margin generated on sales and (like other ratios) can be compared between divisions, to a target or between time periods. Importantly, head office costs are excluded since these are not controllable by the division's manager.

Sales to capital employed as a percentage	2,060.00 / 3,196	1,950 / 4,600
	64%	42%

Key answer tips

Do not spend a long time on these calculations; only four marks are available and only four calculations are required. Any reasonable financial indicator and associated justification would be awarded a mark.

Overall, North Division's performance appears superior to South based upon the calculations in the first three parts of the question.

However, this comparison is not altogether valid because of the difference in asset ages between the two divisions. Equalising non-current asset values and depreciation charges may go a long way towards removing this discrepancy.

Comparison of the two division's sales to capital employed percentage may also suggest that the new assets at South are not yet fully operational.

The difference in asset base between the two divisions may also be reflected in the variable production costs to sales percentage. In this case the lower percentage for South could actually reflect the lower operating costs of the newer more efficient operating assets.

The variable and fixed selling & distribution to sales, along with fixed admin, are all lower in the South. This may be due to poor cost control in the North, or may be connected with the balance of internal to external sales in each division. North has more sales to external customers and therefore will probably need higher selling & distribution and administration costs than the South.

However, it may be the case that the South's internal sales are made at a lower price to reflect the associated cost savings. In which case the division's cost advantage would be somewhat negated.

Despite the similarity of the two divisions output, comparison of their performance is fraught with anomaly and potentially incorrect analysis if based upon the figures provided.

Tutorial note

Notice how the comments focus on the financial performance of the two divisions and use the information in the scenario rather than making more generic comments about financial performance. On the face of it this is a relatively straightforward requirement but your comments need to be relevant to PAK to secure a good mark.

(d) Unified corporate database

A database will combine data from multiple and varied (internal and external) sources into one comprehensive, secure and easily manipulated data store.

A unified corporate database allows users to access the same information at the same time but for different uses. PAK's storage costs should be reduced and data redundancy eliminated because data will only be stored in one place.

By keeping only one version of the data, any inconsistencies in PAK's data should be eliminated and the organisation will be more inclined to focus on the accuracy of this single version.

However, a unified corporate database is not without its disadvantages. Effective controls will be required to monitor access to and changes to data. The data will need to be analysed and cleansed before it can be integrated into the database and staff training may be required. Contingency planning and effective back up will also be essential since the data is only held in one location.

Network technology

A network is where a number of computers and other devices are linked in such a way that any one device can communicate with any other so enabling resource sharing between a number of users. PAK must ensure that it continues to develop its information systems in order to keep up with competitors, most of which will probably already be using network technology. Quick and efficient communication both internally (e.g. between managers and employees) and externally (e.g. between PAK and its suppliers) is essential in the modern business environment.

Potential issues to be addressed may include speed of access and network security. A formal process of system design, implementation and testing should address these issues.

Enterprise resource planning system (ERPS)

An ERPS is an example of a unified corporate database. It is a way of integrating data from all operations within PAK (e.g. purchasing, operations, sales and marketing and human resources) into one single system.

Ease of data sharing between departments and across the organisation is a key advantage. In addition, the system should result in better monitoring and forecasting, lower costs, improved customer service and streamlining of PAK's processes.

However, the cost of such a system is high and the system may prove too rigid to fulfil the specific needs of PAK. Careful planning, design and evaluation of costs would therefore be required.

Key answer tips

There are nine marks available but three information system improvements and therefore you are aiming for three marks for each. Use a separate heading and paragraph for each potential improvement and remember to present a balanced answer with both pros and cons – the requirement asks you to 'evaluate' the improvements.

Marking scheme		
		Marks
(a)	Showing how ROI calculated	1
	Revision of ROI	2
		3
(b)	RI calculation	2
	Comment	1
		3
(c)	½ mark for each performance indicator and ½ mark for each justification, to a maximum of:	4
	Analysis of performance – 1 to 2 marks for each point	6
		10
(d)	Up to 3 marks for the evaluation of each of the three improvements	9
Total		**25**

3 RESTEASY

(a) Existing KPIs

In **general**, legacy KPIs can often not be in line with the needs of the market or the business. Things change, as has been the case here. So-called cost leaders in the hotel industry are no longer offering very poor accommodation and so RestEasy needs to raise its game.

The existing KPIs do not have any quality aspect at all which is inconsistent with the needs of the business.

Specifically:

Measuring **net profit %** (of turnover presumably) is not a driver of performance and so lacks that aspect. Equally net profit is the end result of a lot of factors and so its decline could not easily be traced back to a causal factor. In this regard it could be accused of contributing to financial decline in that it doesn't provide any answers.

Occupancy rates are an industry norm and so are difficult to criticise in themselves. However they are again an indicator of performance and not a driver. RestEasy would want to know why occupancy rates are down not merely that they are.

Maximum wage spend limits could lead to demotivation (where pay rises are refused) or under staffing. In both cases this could damage quality and the experience of customers. Hotels provide a service and well motivated staff could be seen as a CSF in this case.

Maintenance of hotel buildings is important (another CSF probably) in this case an essential repair might have to wait if the limit is exceeded. Some repairs could involve 'value added' services and their failure felt by customers (no heating in the winter for example). Artificially limiting repair spending could easily damage RestEasy's reputation and destroy loyalty.

Tutorial note

Remember 'what gets measures gets done'. A failure to update the existing KPIs to reflect the changing needs of the business will have adverse performance implications.

(b) **The Balanced Scorecard** was not intended as a 'quality' model per se. It was however applicable to many business types and could include a differentiation aspect when defining the business vision (which is normally at the centre of the model).

By definition the Balanced Scorecard considered a balance of perspectives for a business and if the vision had been defined as a quality based differentiator then each of the perspectives could be tailored towards quality. For example in the customer perspective RestEasy could focus on high levels of satisfaction or in the internal business perspective high quality booking systems could be targeted.

The model is fairly easy to understand and so the RestEasy management team should be able to grasp it. However, the success of the model does depend upon the commitment of senior management and staff. In addition, it may be difficult to capture the qualitative information required and there is also a possibility of information overload and possible conflict between measures.

Key answer tips

Don't just explain the balanced scorecard. You need to examine the reasons why it may or may not help in dealing with RestEasy's quality problems.

(c)

Key answer tips

There are a number of drawbacks (and a few advantages) of the suggested KPIs. By examining each drawback you should be able to come up with some alternative KPIs .

Custom Experience Score. On the plus side, this measure would give a good indication of the overall level of customer satisfaction and hence could serve as a good starting point for managing and improving performance.

However, the measure seems very general to be of much use to RestEasy. For example, what action would be taken if a customer gave a low score? The questions need to be much more specific – for example - was the room clean enough? By asking more specific questions, RestEasy can pinpoint individually the areas that need to be addressed.

Another issue is that questionnaires left in hotel rooms suffer from poor response rates and RestEasy may find this to be the case. Some hotels offer prize based incentives to improve response rates (such as a free stay at a future date) and RestEasy may benefit from introducing a similar scheme.

Finally, the use of a scale from 1-5 can cause difficulties. For example, different customers may have different perceptions of what the numbers mean resulting in a different grade being given for what may essentially have been a very similar customer experience. If a scale is to be used it must be clear, unambiguous and directly linked to quality.

On-line proportion. On a positive note, if more bookings are being taken on-line it might be fair to assume that the system is liked by customers. However, this does not necessarily correlate to customers believing that the online system is of high quality – many businesses will currently be experiencing an increased proportion of online bookings due to greater use of technology by customers.

The measure should be more about the efficiency of the process and the ease of use. This could be captured by the system at the time of booking. RestEasy could measure the time taken to book or ask specific questions of the customer at the end of the booking process about its ease of use (although, once again, it may be difficult to incentivise customers to leave this feedback).

Staff Turnover. This is a better measure than the previous ones. The presumption must be that experienced staff will know their job better and the workings of the hotel. Hence they should be able to provide better service to customers and so the quality of service provision will increase.

However, a low staff turnover rate does not necessarily guarantee a quality service. Staff may not be fully trained or motivated to provide a quality service. RestEasy could measure the amount of time that employees attend training each year with a particular focus on training in 'quality' aspects.

It is also odd that the new room technology was not chosen for a measure given the investment made here. Questions could be asked of customers about the new TV and music systems or monitoring of their use could be built in (perhaps anonymously).

Marking scheme			
			Marks
(a)	General comments		2
	Each KPI considered, up to 2 marks each to a maximum of 6 marks		6
		Maximum	8
(b)	Not a quality model		1
	Can be applied though		2
	Examples		1
	Potential drawbacks		2
		Maximum	5
(c)	Each KPI evaluated		2
	Each suggestion justified		2
		Maximum	12
Total			**25**

4 RJ BUSINESS CONSULTING GROUP

Key answer tips

Part (a) is a straightforward application of the rules of transfer pricing. However, the transfer pricing calculations can sometimes throw students. Hopefully a review of the answer will demonstrate that they are very manageable and you will then be able to successfully attempt a similar question in the real exam.

Make sure that you discuss your calculations.

To get full marks in part (b) make sure you explain/justify your limitations.

In part (c) you must examine a lean approach in the context of the organisation's MIS. Don't simply focus on lean production.

(a) (i) IT division does not have spare capacity

If the IT division does not have spare capacity the **minimum transfer price** that it will accept will be the marginal cost plus the opportunity cost (lost contribution).

The transfer price of $1,500 proposed by the IT division is based on cost plus 150%.

From this it can be deduced that the total cost per consulting day is (100/250) × $1,500 = $600.

This comprises $480 variable cost (80%) and $120 fixed cost (20%).

The marginal cost of the transfer of services to the HR division is $380 = the $480 variable cost – the $100 saving due to the use of internal video conferencing equipment.

If the IT division transfers internally it would have a lost contribution (opportunity cost) of $1,500 – $480 = $1,020 per consulting day.

Therefore, the minimum transfer price the IT division would accept is the marginal cost of $380 + the opportunity cost of $1,020 = **$1,400 per consulting day**.

This transfer price is equal to the **maximum price** that the buying division would be willing to pay, i.e. the external purchase price of $1,500 – the internal cost savings of $100 = **$1,400**).

(ii) Unutilised team of consultants

If the IT division has spare capacity then the **minimum transfer price** that it will accept is the marginal cost (as calculated above) of **$380 per consulting day.**

The **maximum price** that the buying division would pay is **$1,400** (as above). In reality the IT division would want to make a profit and therefore the price would be negotiated between $380 and $1,400).

The remaining fully utilised consultants

If for any reason additional consultants are required then the **minimum transfer price** that it will accept for the additional consultants will be the marginal cost plus the opportunity cost (lost contribution) of **$1,400 per consulting day** (as calculated in part (i)). As discussed, this is equal to the **maximum transfer price** the buying division would be willing to pay.

(iii) Client offering to pay for two teams of consultants

If the IT division provide services for the internal HR division then they miss out on contribution from the client who is offering to pay for their services.

Therefore, the **minimum transfer price** that the IT division will accept will be the marginal cost plus the opportunity cost (lost contribution).

The marginal cost has already been calculated at $380.

The lost contribution from the major client amounts to $528,000/(2 teams × 48 weeks × 5 days) = $1,100 less the variable cost of $480 = $620 per consulting day.

Therefore, the transfer price is the marginal cost of $380 plus the opportunity cost of $620 = **$1,000 per consulting day.**

The **maximum price** that the buying division would be willing to pay would again be **$1,400**. Therefore, the price would be negotiated between $1,000 and $1,400.

(b) Negotiated transfer prices

The director of the IT division may consider the following to be limitations of negotiated transfer prices:

- A transfer price that is the final outcome of negotiations between the HR division and the IT division may not be close to the transfer price that would be optimal for RJ as a whole since it can be dependent on the negotiating skills and bargaining powers of individual managers. The resulting decisions made by managers may thus be sub-optimal for the group as a whole.
- Negotiation may lead to conflict between the IT and HR divisions which may necessitate the intervention of top management to mediate, thus distracting them from other roles. Similarly, negotiating prices can be time-consuming for

the managers involved, particularly where large numbers of transactions are involved.

- The measure of divisional profitability can be dependent on the negotiating skills of the HR division and the IT division who may have unequal bargaining power. This makes it much more difficult for senior management to assess divisions (or their managers), possibly resulting in sub-optimal investment decisions.

(c) Lean is a philosophy of management based on cutting out waste and unnecessary activities.

A lean approach would aim to identify and eliminate waste in RJ's management information system (MIS) and improve the efficiency and flow of information to users.

Waste	**Necessary requirements of the MIS**
Over-production	The MIS should only produce information that is used or needed by RJ. Information should only be provided to the people who need it.
Inventory	Only necessary information should be held in the MIS and information should not be duplicated.
Waiting	The system should provide timely information for planning, decision making and control. Real time information processing would be desirable.
Defective units	The system should be capable of producing information that does not require reworking and that can be relied upon for accurate planning, decision making and control.
Motion	The MIS should be streamlined to cut out any unnecessary steps in producing the relevant information.
Transportation	Similar to motion – the MIS should eliminate any unnecessary steps in capturing data and producing appropriate information.
Over-processing	The MIS should eliminate unnecessary processing resulting in information being produced that is not required. Regular user meetings should help to establish needs and ensure continuous improvement.

The system should be simplified but also improved as a result and in times of recession this technique could help RJ to cut costs, improve efficiency and to improve quality.

Marking scheme		
		Marks
(a)	4 marks for the explanation and calculation of each correct transfer price	12
(b)	2 mark for each limitation if explained/developed	6
(c)	1 mark for each relevant point	7
Total		**25**