Performance Management (PM)
March / June 2021
Examiner’s report

The examining team share their observations from the marking process to highlight strengths and weaknesses in candidates’ performance, and to offer constructive advice for those sitting the exam in the future.

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General comments

This examiner’s report should be used in conjunction with the published March/June 2021 sample exam which can be found on the ACCA Practice Platform.

In this report, the examining team provide constructive guidance on how to answer the questions whilst sharing their observations from the marking process, highlighting the strengths and weaknesses of candidates who attempted these questions. Future candidates can use this examiner’s report as part of their exam preparation, attempting question practice on the ACCA Practice Platform, reviewing the published answers alongside this report.

The Performance Management (PM) exam is offered as a computer-based exam (CBE). The model of delivery for the CBE exam means that candidates do not all receive the same set of questions. In this report, the examining team offer detailed debriefs of selected questions from each section of the exam.

- Section A objective test questions – we focus on four specific questions that caused difficulty in the March 21 and June 21 sittings of the exam.
- Section B objective test case questions – here we look at one case from section B in detail.
- Section C constructed response questions – here we provide commentary on two questions, providing guidance on answering these questions and where exam technique could be improved, including in the use of the CBE functionality in answering these questions.

Section A

In this section we will look at **FOUR** Section A questions which proved to be particularly difficult for candidates.

Example 1

Which TWO of the following bases for setting a transfer price are most likely to result in goal congruent behaviour by BOTH the selling and receiving divisions?

Options:

A. Opportunity cost
B. Market price
C. Actual cost
D. Standard full cost plus
What does this test?
✓ The understanding of the objectives of a transfer pricing system

What is the correct answer?
✓ The correct answer is A Opportunity cost and B Market price

In setting a transfer price, the organisation should be aiming for a price which will result in the best outcome for the division and for the organisation as a whole.

With the opportunity cost method, the transfer price is the variable cost plus the opportunity cost. Where the selling division can sell externally, the opportunity cost will be the contribution lost from selling internally rather than externally. This transfer price ensures that anything in excess of this will incentivise the seller to sell. The buyer's maximum price is the lower of divisional net revenue and market price. Anything lower than this will incentivise the buyer to buy.

With the market-based method, the transfer price is equal to the market price. With this transfer price, neither the seller or the buyer will end up paying more or selling for less than they would if an external sale or purchase took place. In reality the transfer price might be slightly less than the market price as savings can be made from reduced distribution or packaging costs internally.

Actual cost methods, using either marginal cost or full cost, could result in inefficiencies being passed from the seller to the buyer. This would incentivise the seller but not the buyer. The buyer may buy externally when it is in fact more goal congruent to buy internally.

Standard full cost plus would incentivise the seller, depending on the mark up assigned. However, it is likely that the resulting transfer price may be too high, and the buyer may buy externally, when this is in fact a dysfunctional decision and would not result in the best outcome for the organisation as a whole.

Example 2

Indicate, by clicking on the relevant boxes in the table below, whether each of the statements made about short-term decisions are true or false.

<table>
<thead>
<tr>
<th>Joint costs are relevant in decisions about whether to sell a joint product at the split-off (separation) point or after further processing</th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relevant costs and revenues in decisions relating to the operating of internal service departments or the use of external services, are the differential costs between the two options</td>
<td>TRUE</td>
<td>FALSE</td>
</tr>
</tbody>
</table>

What does this test?
✓ The understanding of relevant costs in decision making
What is the correct answer?
✓ The first statement is false, the second statement is true

Joint costs are not relevant in decisions about whether to sell a joint product at the split-off point or after further processing. When making a decision about further processing, the relevant costs are the incremental revenues from selling after further processing and the incremental costs of further processing. Where the incremental revenues exceed the incremental costs, then further processing is financially worthwhile.

The relevant costs and revenues in decisions relating to the operating of internal service departments or the use of external services are the differential costs between the two options.

Example 3

A manufacturing company uses machine C, which is operational for five hours a day to manufacture four products: W, X, Y and Z. Factory costs are $150,000 per day. The company uses throughput accounting and its objective is to maximise profits.

Information relating to these products is as follows:

<table>
<thead>
<tr>
<th>Product</th>
<th>Production rate per machine hour (units)</th>
<th>Selling price per unit ($)</th>
<th>Material cost per unit ($)</th>
<th>Conversion cost per unit ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>200</td>
<td>350</td>
<td>120</td>
<td>40</td>
</tr>
<tr>
<td>X</td>
<td>500</td>
<td>190</td>
<td>95</td>
<td>25</td>
</tr>
<tr>
<td>Y</td>
<td>400</td>
<td>270</td>
<td>160</td>
<td>20</td>
</tr>
<tr>
<td>Z</td>
<td>350</td>
<td>215</td>
<td>75</td>
<td>35</td>
</tr>
</tbody>
</table>

If the company is not able to increase the availability of machine C's operational hours, what is the production ranking of product Y?

Options:
A. First
B. Second
C. Third
D. Forth

What does this test?
✓ The application of throughput accounting
What is the correct answer?
✓ The correct answer is D Forth

As the products are all produced in the same factory the cost per machine hour will be the same across all the products so they can be ranked on their throughput return per machine hour (otherwise they should be ranked on their throughput accounting ratio).

<table>
<thead>
<tr>
<th>Product</th>
<th>Production rate per machine hour</th>
<th>Throughput per unit (selling price – material cost per unit) ($)</th>
<th>Throughput per machine hour ($)</th>
<th>Ranking of products</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>200</td>
<td>230</td>
<td>(200 x $230) = 46,000</td>
<td>3rd</td>
</tr>
<tr>
<td>X</td>
<td>500</td>
<td>95</td>
<td>(500 x $95) = 47,500</td>
<td>2nd</td>
</tr>
<tr>
<td>Y</td>
<td>400</td>
<td>110</td>
<td>(400 x $110) = 44,000</td>
<td>4th</td>
</tr>
<tr>
<td>Z</td>
<td>350</td>
<td>140</td>
<td>(350 x $140) = 49,000</td>
<td>1st</td>
</tr>
</tbody>
</table>

The products would be ranked in order: Z, X, W and Y. Product Y would be ranked forth (last).

Example 4

The cost of running a company’s IT department is $2.4m per annum. 90% of the processing time in the department is spent on recording accounting transactions and 10% on responding to online information requests from managers.

There are two types of information request: full reports and specific queries. A full report takes twice the processing time as a specific query and each month there are 4,000 specific queries and 500 requests for full reports. Costs are apportioned on the basis of processing time.

What is the estimated cost per specific query (to the nearest $)?

Options:
A. $4
B. $20
C. $48
D. $40

What does this test?
✓ The calculation of data capture costs
**What is the correct answer?**

✓ The correct answer is A $4

The total cost of responding to information requests = $2.4m x 10% = $240,000. This cost relates to both full reports and specific queries. As the full report takes double the time of the specific query, the total number of equivalent requests can be calculated as 4,000 + (500 x 2) = 5,000. This is the number of requests per month, therefore 5,000 x 12 = 60,000 equivalent requests per year.

The cost per specific query = $240,000/60,000 = $4.

**Section B**

In this section we will look in detail at a case covering Limiting factors from syllabus area C – Decision making techniques.

**Home Electrics Co**

Home Electrics Co manufactures electrical appliances for domestic use. It is made up of two divisions.

**Small Appliances division**

Two of the products manufactured by the Small Appliances division are the Blender (Product B) and the Toaster (Product T). The standard cost cards per unit for each of the products is as follows:

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling price</td>
<td>$80</td>
<td>$120</td>
</tr>
<tr>
<td>Direct materials ($5 per kg)</td>
<td>$10</td>
<td>$15</td>
</tr>
<tr>
<td>Direct labour ($7 per hour)</td>
<td>$21</td>
<td>$35</td>
</tr>
<tr>
<td>Variable overheads</td>
<td>$12</td>
<td>$18</td>
</tr>
<tr>
<td>Fixed overheads</td>
<td>$8</td>
<td>$10</td>
</tr>
<tr>
<td>Profit</td>
<td>$29</td>
<td>$42</td>
</tr>
</tbody>
</table>

In the first quarter of the year the supply of materials was restricted to 2,000 kg per month. This was due to a global shortage.

It is now April and it has been identified that material will continue to be limited to 2,000 kg per month but also labour hours will be restricted to 3,200 hours per month. The management accountant has supplied formulas for the production constraints as follows:

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>2B + 3T = 2000</td>
</tr>
<tr>
<td>Labour</td>
<td>3B + 5T = 3200</td>
</tr>
</tbody>
</table>
**Large Appliances division**

This division also manufactures two products; a Freezer (Product F) which earns a contribution of $150 per unit and a Dishwasher (Product D) which earns a contribution of $200 per unit. Both products use the same resources, several of which are in short supply.

In April only 4,000 labour hours, 2,500 kg of material and 3,200 machine hours will be available. The management accountant has applied linear programming and defined the following constraints:

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>$4F + 6D = 2500$</td>
</tr>
<tr>
<td>Labour</td>
<td>$10F + 8D = 4000$</td>
</tr>
<tr>
<td>Machine time</td>
<td>$5F + 10D = 3200$</td>
</tr>
<tr>
<td>Demand for D</td>
<td>$250$</td>
</tr>
</tbody>
</table>

Labour and machine time have been identified as the binding constraints and an optimum production plan of 240 units of F and 200 units of D has been calculated.

**Question 1**

**What is the contribution per unit of limiting factor for Product T in the first quarter of the year (to the nearest whole $)?**

$ \underline{\phantom{1234567890}}$

The correct answer is $17

From the scenario, it is stated that the limiting factor for Product T in the first quarter was direct materials. The calculation is therefore the contribution per kg of direct materials.

<table>
<thead>
<tr>
<th>Contribution</th>
<th>$52$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling price</td>
<td>$120$</td>
</tr>
<tr>
<td>Variable cost (15+35+18)</td>
<td>$68$</td>
</tr>
<tr>
<td>Kg of material required per unit</td>
<td>$3$</td>
</tr>
<tr>
<td>Contribution per kg of material ($52/3$)</td>
<td>$17.33$</td>
</tr>
</tbody>
</table>

The answer is to be provided to the nearest whole $, therefore $17.
Question 2

Using simultaneous equations, what is the total contribution to be earned from Products B and T in April?

Options:

A. $28,400
B. $35,600
C. $62,000
D. $77,200

The correct answer is B. $35,600.

The constraint equations are given:

Materials 2B + 3T = 2,000 (1)
Skilled Labour 3B + 5T = 3,200 (2)

To solve the simultaneous equations, we must multiply the equations so that we end up with the value of Bs or the value of Ts the same. We could multiply equation (1) by 5 and (2) by 3 to give:

10B + 15T = 10,000 (3)
9B + 15T = 9,600 (4)

Now we can eliminate the Ts by deducting equation (4) from equation (3). This leaves us with
1B = 400.

We can calculate the value of T, by using B = 400 in any of the equations. Using equation (1):

(2 x 400) + 3T = 2,000
800 + 3T = 2,000
3T = 1,200
Therefore, T = 400

Now that we know the quantities of B and T, we can calculate the total contribution. The contribution of B = ($80 - $10 - $21 - $12) = $37.
The contribution of T = ($120 - $15 - $35 - $18) = $52.

The total contribution is therefore (37 x 400) + (52 x 400) = $35,600.
Question 3

Which of the following statements about the use of linear programming to resolve limiting factor problems are true?

(1) The linear programming method helps to identify the optimum selling price for a product
(2) Slack occurs when more than the maximum available of the limited resource is required

Options:
A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

The correct answer is D: Neither statement is true.

The first statement is incorrect. Linear programming identifies the optimum number of units of each product to produce, not the optimum selling price.

The second statement is incorrect. Slack occurs when less of the limited resource is required than is available. When slack occurs, there will be some of the resource left over after production after production of the optimum production pan.

Question 4

What would be the shadow price of material in the Large Appliances division (to the nearest whole $)?

$__________

The correct answer is $0

It is possible that this question could have caught many candidates out, if they had not read the scenario carefully. There are three constraints for the Large Appliances division (labour hours, material and machine hours). It is stated in the scenario that labour and machine time have been identified as the binding constraints. This suggests that material is NOT a binding constraint, and therefore will have a shadow price of $0. Only binding constraints will have a shadow price.
Question 5

Which of the following statements about the linear programming method in the Large Appliances division are true?

(1) Product D has a slack value
(2) Contribution of $76,000 will be earned from the optimum production plan
(3) Labour and machine time intersect at the optimum point if shown on a graph

Options:
A. 1, 2 and 3
B. 2 and 3 only
C. 1 and 3 only
D. 2 only

The correct answer is A. All three statements are true.

Work through each statement and decide if it is true.

(1) Product D has a slack value. At the optimum solution, the demand for product D is 250, while the output is 200. Product D has unfulfilled demand at the optimum solution, so it has a slack value. This statement is true.

(2) Contribution of $76,000 will be earned from the optimum production plan. The optimum production plan is to produce 240 units of product F and 200 units of product D. The total contribution will be (240 x $150) + (200 x $200) = $76,000. This statement is true.

(3) Labour and machine time intersect at the optimum point if shown on a graph. As labour and machine time are the binding constraints, they will be the vertex where the optimum point occurs on a linear programming graph. This statement is true.
Section C

In this section we will look in detail at TWO constructed response questions from different syllabus areas. The full questions and solutions have been published and are available on the ACCA Practice Platform.

Question 1 – Medical Temp Co (MTC)

MTC is from the Budgeting and Control area of the syllabus (syllabus area D), specifically planning and operational variances. Performance in this type of question is mixed. Well prepared candidates can score very well in this type of question.

The question is structured in a similar way to other variance questions – 10 marks are available for calculation of variances, with the other 10 marks available for discussion – as is usually the case the discussion marks require a good understanding of what the variances mean, and how they can affect a business’ decision making and performance management.

As with any longer question, read the requirements first to try and identify the syllabus area you’re being asked about, and anything important you need to look out for in the scenario. From the requirements (a) and (b), it’s clear we’re dealing with market size and market share variances. Part (c) is less immediately clear, but we need to find out what the actions of the sales director were.

Once you start reading the scenario, it is clear that there is a separate section in the scenario relating only to part (c). This allows you to split the question in two, and deal with (a) and (b) first. As always, make sure you leave enough time for (c), as it is worth 6 marks.

This report will discuss the best way to tackle each requirement in turn, highlighting common mistakes and demonstrating ways to pick up more marks.
Requirement (a) – 4 marks

(a) Explain why businesses calculate market size and market share variances.

This is a knowledge-based requirement which is not related to the scenario. It is generally important in section C question to use the scenario given, however in this requirement that is not necessary as it asks about businesses in general. If the requirement was ‘Explain why MTC calculate market size and market share variances’ then the approach would be different, and we would have to look for more specific reasons.

There are a couple of things you can do with questions like this if you don’t know where to start.

Firstly, you can explain any technical terms given. We are asked about two ‘advanced’ variances (market size and market share). If a question asks about something that you would not expect a non-accountant to understand, then briefly explaining it will help the reader understand why a business might want to know about it. This brings out a couple of points straight away:

- Market share and market size variances are a breakdown of the sales volume variance.
- The sales volume variance looks at the difference in profit (or contribution) caused by selling more or fewer units than expected.

This is a good start, but the requirement is why businesses want to calculate them. Think about why businesses would want to split the volume variance into market size and share, and the key issue of the question should present itself – controllability. That should then allow you to make the important points that the market size variance is uncontrollable whereas the market share variance is controllable. Following on from that, develop the answer by explaining that controllability is important as it allows for better performance assessment.

The most common reason candidates did not score well on this is by being too brief and repeating information already given. For example, many answers just made the point that ‘Market size variance is a planning variance and market share variance is an operational variance.’ This is perfectly true, but it does not explain why that is important to a business. To score well, the link to controllability would have to be discussed.
Requirement (b) – 10 marks

(b) Calculate the total market size (planning) variance and the total market share (operational) variance for MTC for quarter 2.

All variance calculations are essentially the same, even these advanced ones, they are trying to find the difference in profit caused by something being different from expected.

There are different ways of laying out variance calculations. You will get the same results no matter what layout you use. It is best to find a layout that works for you and stick to it. In this report we will be using the line by line method. This works for any variance, including planning and operational variances. As long as you know the basic variances, planning and operational variances should follow.

When calculating the market size and market share variances, the basic variance is the sales volume variance. The added complication here is that the calculation of the sales volume variance differs depending on the costing method used. We are not told in the scenario if absorption or marginal costing is used, but we are only given information on contribution, therefore we will assume that marginal costing is used. The sales volume variance under marginal costing looks like this:

\[
\text{Actual Quantity (AQ)} \times \text{Standard Margin (SM)} \quad \text{Volume variance}
\]

\[
\text{Budget Quantity (BQ)} \times \text{Standard Margin (SM)}
\]

(The standard margin under marginal costing is contribution)

We can now look at how to split this into the planning (market size) and operational (market share) variances. When we are dealing with a planning and operational variance it means that our original expected value (in this case budgeted sales) was incorrect for an unforeseen or unexpected reason. This will be due to a change in market size, which is not controllable.

If we had known the correct market size, we would have budgeted a different number of sales based on our expected market share – so once we know what the actual size of the market was, we can revise our original budget to show the difference caused by the market size changing, and the difference caused by our market share being different from expected. In terms of the variance calculation, it becomes:

\[
\text{Actual Quantity (AQ)} \times \text{Standard Margin (SM)} \quad \text{Market share variance}
\]

\[
\text{Revised Quantity (RQ)} \times \text{Standard Margin (SM)} \quad \text{Market size variance}
\]

\[
\text{Budget Quantity (BQ)} \times \text{Standard Margin (SM)}
\]
To find the planning and operational variances, I have just added an additional line in the middle of the sales volume calculation with the revised quantity. I only need to revise the quantity here because I'm dealing with sales volume. This approach will work for any other planning/operational variance.

Now that I have the variance layout, I now know what information I need from the scenario – details on actual sales, budgeted sales, changes in the market and the standard margin (contribution).

Firstly, we need the standard margin which in this question is the standard contribution. The scenario tells us that standard contribution margin is 80% for both nurses and doctors, and the standard rate is $1,000 and $2,000 respectively. This gives standard margins of $800 and $1600.

Next we need volumes. As we are given market sizes in terms of revenue, we must convert this to volume. This can be done by dividing by the standard prices.

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>$14,000,000</td>
<td>($14,000,000/$1,000)</td>
</tr>
<tr>
<td>$8,000,000</td>
<td>($8,000,000/$2,000)</td>
</tr>
</tbody>
</table>

MTC expect to achieve 30% share of the nurses market and 40% share of the doctors market, so their expected volumes, based on Q1 figures, would be:

Nurses:  
30%*14,000 = 4,200

Doctors:  
40%*4,000 = 1,600

These are our Budget Quantity figures. However, once we know the actual Q2 market size, we would revise them to give the Revised Quantity figures, so a similar calculation would give:

<table>
<thead>
<tr>
<th>Q2</th>
<th>Q2</th>
<th>MTC Revised volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>$18,900,000</td>
<td>($18,900,000/$1,000)</td>
<td>18,900 (18,900 x 30%) = 5,670</td>
</tr>
<tr>
<td>$8,200,000</td>
<td>($8,200,000/$2,000)</td>
<td>4,100 (4,100 x 40%) = 1,640</td>
</tr>
</tbody>
</table>

Finally, the Actual Quantity figures can be obtained from the actual revenue figures given of $5.3m for nurses and $3.6m for doctors:

Nurses:  
$5,300,000/$1,000 = 5,300

Doctors:  
$3,600,000/$2,000 = 1,800
The actual contribution margin given of 75% is a distractor – you would never use actual contribution in a volume variance calculation.

This then allows me to lay out my answer:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nurses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>AQSM</td>
<td>4,240,000</td>
<td>-290,000</td>
<td>A</td>
<td>Market share</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5300*800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>RQSM</td>
<td>4,536,000</td>
<td>1,175,000</td>
<td>F</td>
<td>Market size</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5670*800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>BQSM</td>
<td>3,360,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>4200*300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doctors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>AQSM</td>
<td>2,880,000</td>
<td>-256,000</td>
<td>A</td>
<td>Market share</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1800*1600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>RQSM</td>
<td>2,624,000</td>
<td>64,000</td>
<td>F</td>
<td>Market size</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1540*1600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>BQSM</td>
<td>2,560,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>1600*1600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>-40,000</td>
<td>A</td>
<td>Market share</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td>1,240,000</td>
<td>F</td>
<td>Market size</td>
<td></td>
</tr>
</tbody>
</table>

A couple of things to note here:

- The requirement asks for the total market size and share variances, this is shown in rows 19 and 20. This is probably the easiest part of the question but shows the importance of reading the requirement carefully as many candidates missed this part of the requirement.

- You would not be expected to draw the lines in column C. A layout like this without them is more than enough.

- I have shown my workings in column A, but if your calculation in column B uses the spreadsheet functionality then your marker would be able to see this and award credit accordingly.

Here the calculation for cell B2 can be seen as 5300*800.
• Note the A for adverse and F for favourable. It is important in variance calculation to clearly state if the variance is adverse or favourable. Showing simply + or – will not gain full marks. It can be useful to think of whether the variance is good or bad. For example, the actual volume for nurses is lower than the revised volume. That is bad as actual sales are lower than expected, so the variance is Adverse.

• The suggested solution has been done in a different way, and as previously mentioned, there are different ways to calculate variances. The answers should be the same. It does not matter which technique you use, as long as it works for you!

• The most common mistake made in this answer was to use revenue rather than contribution in the variance calculations. Remember on a volume variance, use standard margin.

There’s a lot to talk about in this section, and if you have not attempted many variance questions it may seem very overwhelming. The key thing with variances is to practise as many as possible – you soon get used to picking the information you need from the scenario and with practice should be able to perform the calculations quickly and accurately.

Requirement (c) – 6 marks

(c) Discuss the actions of the sales director at Cheat Co and how this may have impacted on the variances which have been calculated.

(6 marks)

There is a short extra scenario for part (c), where we are told about the actions of the sales director of Cheat Co. It is made clear that he deliberately gave some false information to the accounts department and that the variances calculated were based on this false information. Note, there are two requirements here, ‘discuss the actions’ and ‘how has this impacted on the variances.’ It is important to address both areas to achieve maximum marks, it should also make things more manageable as it can be viewed as two related three-mark discussions rather than one larger six-mark discussion.

It is good practice to use headings on written questions wherever possible to both remind yourself of the requirements and to show the marker that you are addressing the full requirement. One of the common mistakes on part (c) was not answering both parts of the requirement. Setting out the headings before starting to write the answer would have avoided this.

In common with many narrative requirements, many candidate’s answers did not contain enough detail. For example, ‘the variances would be incorrect,’ was often given. While true, you are given more detail in the scenario, and should use it – go into the detail of how the market size and market share variances would change if they
were calculated correctly, and how this would affect the sales director’s performance assessment. The key issue here is that he is only judged on the market share variance, and his actions have incorrectly given a large favourable variance at the expense of the market size variance, which he is not judged on. This is one of the problems with planning and operational variances – managers will try to deflect bad performance onto the planning variance to enhance the operational results, and we should be on the lookout for this.

The key messages are:
- Read the requirements carefully
- Use the software to your advantage
- Practice!

Question 2 – Medcomp

Medcomp is from the Performance measurement and control area of the syllabus (syllabus area E). The main focus of this question was measuring the performance, using the balanced scorecard, of a not-for-profit organisation.

This question, Medcomp, covering a not for profit organisation with strong non-financial objectives and a wide set of stakeholders, provided a good opportunity to appraise a business within the balance scorecard model. Medcomp was described in the scenario as a charity providing medical treatment to prevent and cure blindness caused by cataracts. It had been providing free treatment to 12 treatment centres worldwide. It used primarily voluntary workers who were recently qualified doctors and nurses volunteering for the charity for a one-year period. This had always been Medcomp’s strategy and, it believed, ensured that the organisation was always up to date with the latest developments and procedures in cataract cure and prevention.
As well as the background information summarised above and some extra pieces of information, candidates were also provided with extracts from Medcomp’s accounts as shown below:

<table>
<thead>
<tr>
<th></th>
<th>20X8</th>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average size of donation ($)</td>
<td>600</td>
<td>535</td>
<td>500</td>
</tr>
<tr>
<td>Number of donations</td>
<td>2,850</td>
<td>3,000</td>
<td>2,950</td>
</tr>
<tr>
<td>Total operating costs ($'000)</td>
<td>1,730</td>
<td>1,550</td>
<td>1,430</td>
</tr>
<tr>
<td>New procedures as a percentage of total procedures (Note)</td>
<td>20%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Number of treatments performed</td>
<td>5,600</td>
<td>5,000</td>
<td>4,600</td>
</tr>
<tr>
<td>Number of successful treatments</td>
<td>4,312</td>
<td>4,300</td>
<td>4,002</td>
</tr>
<tr>
<td>Average number of days taken to deliver drugs and equipment to treatment centres</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

**Note:** New procedures are procedures which are introduced within the year.

Medcomp is about to introduce a balanced scorecard to help implement its strategy and measure performance. The critical success factors (CSFs), which relate to the four perspectives of the balanced scorecard have been identified as: **positive cash flow, innovation, medical effectiveness and functional efficiency.**

You can see from the note under the table in the extract above that the organisation’s critical success factors were also given. The question then had two requirements.

**Requirement (a) – 16 marks**

(a) For each perspective of the balanced scorecard, select the appropriate critical success factor (CSF) which relates to the perspective, suggest ONE key performance indicator (KPI) which will help to measure the CSF and use the KPI to analyse Medcomp’s performance from 20X6 to 20X8.

(16 marks)

Candidates were then provided with a template to answer the question, an extract from which is provided below:

<table>
<thead>
<tr>
<th>FINANCIAL</th>
<th>CSF:</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPI:</td>
<td></td>
</tr>
</tbody>
</table>

Performance analysis:
Candidates were given all four perspectives of the balanced scorecard, with the other two presented in the same way as the first two above. The rationale here was that candidates would be able to provide concise, focussed answers and would remember that, for each perspective, they needed to:

- note down the correct CSF, as given in the scenario (positive cash flow, innovation, medical effectiveness and functional efficiency); and
- suggest an appropriate KPI for the specific CSF; and
- Discuss the performance of Medcomp using the KPI suggested.

### How to perform well on this question

#### 1. Linking correct CSF to each perspective

The first, most important point to note was that Medcomp’s CSFs had already been given in the question and put in bold to make sure that they were not missed. This meant that candidates had to identify the CSF which linked to the relevant perspective. The examining team were careful to make sure that there was no scope for CSFs being put under more than one perspective, as they sometimes can be.

The correct CSF for each perspective was clearly:

- **Financial perspective** - positive cash flow
- **Customer perspective** – medical effectiveness
- **Learning & Growth perspective** – innovation
- **Internal perspective** – functional efficiency

Whilst the majority of candidates got this part of the question correct, a substantial number did not read the scenario properly and invented critical success factors. This made it impossible to score any marks here and highlights the need to read the information carefully.

#### 2. Suggest one key performance indicator

The suggested KPI needed to link properly to the CSF given. This meant, for example, under the financial perspective, since the CSF was positive cashflow, the KPI needed to reflect both cash inflows and cash outflows. So, ideally it would have been ‘cash surplus/deficit’ or ‘total donations less operating costs’. If a suggested KPI only reflected cash coming in, such as ‘total donations received’, it was not adequately addressing Medcomp’s chosen CSF of positive cashflow and could not therefore earn marks.

<table>
<thead>
<tr>
<th>CUSTOMER</th>
<th>CSF:</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPI:</td>
<td></td>
</tr>
<tr>
<td>Performance analysis:</td>
<td></td>
</tr>
</tbody>
</table>
3. Analyse performance using the KPI

For this part of the requirement, it was sometimes appropriate to perform a calculation so that performance could be assessed. This was certainly the case for the customer perspective, for which the best KPI would have been ‘percentage of successful treatments’ (i.e. successful treatments/total treatments x 100). The level of analysis then needed to earn all of the marks available was quite small really, as plenty of time had been given in this question to ensure that candidates had time to think. Candidates could have worked out that the percentage had been falling over the last few years from 87% to 86% to 77%, a fall on ten percentage points in total.

To score good marks in questions like this, candidates are then expected to look at the scenario and suggest reasons for the results they are seeing. In this case, there were no definite reasons for the decline but given the fact that the number of new treatments performed had increased substantially over the last three years, candidates could have suggested that the new treatments might not be so effective, for example.

This point also provides an opportunity to point out when a suggestion will earn no marks at all. To explain the decline in the percentage of successful treatments, many candidates said that this could have been because Medcomp has been using newly qualified doctors and nurses. However, to suggest this meant that a candidate had not read the scenario properly as Medcomp had always used newly qualified staff, so this would not explain the decline in the medical effectiveness of the procedures being used, because it was not a new thing.

Requirement (b) – 4 marks

(b) Explain the benefits of an organisation using the balanced scorecard to measure performance instead of using solely financial measures.

This requirement was a generic, pure knowledge requirement and could have been answered without any reference to the scenario. Candidates are reminded that it is good practice to ‘get the easy marks first’ and they should have done this here. Since the question asked for the benefits and did not ask for any explanation of what the balanced scorecard is, there were no marks available for outlining each perspective, as many candidates tended to do. It is better to take a couple of minutes to think about what to write before starting to answer the question.

Answers should have focussed on the benefits to be gleaned from looking at the organisation as a whole, rather than just focussing on financial factors, especially as not all organisations have profit or financial return as their main objective. The balanced scorecard enables a business to focus on the future more and the past less, encouraging spending, for example, on training, which can have huge benefits in the long term. Financial measures are relatively easy to manipulate, non-financial ones are less so.
Performance of candidates on this question

With most candidates correctly identifying the CSF for each perspective of the scorecard, answers to part (a) were off to a good start. When it came to the KPIs, there were more weaknesses. The biggest one was a tendency to put a suggested KPI that was just an absolute number e.g. 'the number of successful treatments' rather than 'the percentage of successful treatments'. Absolute numbers do not mean much on their own, they need to be compared to something else and a percentage worked out. So, quite a few easy marks were missed by candidates for doing this.

As regards the discussion on performance, this was reasonably well-answered, with candidates coming up with some good suggestions.

In part (b), most candidates performed less well. This was because they weren’t answering the question and spent too much time describing the balance scorecard, which was not the requirement.

Overall, answers to this question showed a definite improvement compared to previous years, which may have been helped by the provision of a template. That said, candidates should not rely on the fact that a template will always be provided as knowing the four perspectives of the scorecard and being able to structure an answer appropriately are key skills at this level.