

# Examiner's report

## F5 Performance Management

### June 2018

#### General comments

The F5 Performance Management exam is offered in both computer-based (CBE) and paper formats. The structure is the same in both formats but our 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 share their observations from the marking process to highlight strengths and weaknesses in candidates' performance, and to offer constructive advice for future candidates.

- Section A objective test questions – we focus on two specific questions that caused difficulty in this sitting of the exam
- Section B objective test case questions – here we look at the key challenge areas for this section in the exam
- Section C constructed response questions - here we provide commentary around some of the main themes that have affected candidates' performance in this section of the exam, identifying common knowledge gaps and offering guidance on where exam technique could be improved, including in the use of the CBE functionality in answering these questions.

#### Section A

##### Sample Questions for Discussion

Here we take a look at **TWO Section A** questions which proved to be particularly difficult for candidates.

##### Example 1

Vibrant Paints Co manufactures and sells paints. Business Unit A of the company makes a paint called Micra. Micra is made using three key materials: R, S and T.

At the end of period 1, a total material cost variance of \$4,900 adverse was correctly recorded for Micra.

The following information relates to Micra for period 1:

Material	Standard cost per litre (\$)	Actual cost per litre (\$)	Actual usage (litres)
R	63	62	1,900
S	50	51	2,800
T	45	48	1,300

The standard ratio of mixing material R, material S and material T is 30:50:20.

The material price variance for Micra has been correctly calculated as \$4,800 adverse.

**What is the total material yield variance for Micra for period 1?**

- A** \$700 favourable
- B** \$800 adverse
- C** \$800 favourable
- D** \$900 adverse

*What does this test?*

- ✓ The calculation of material yield variance

*What is the correct answer?*

- ✓ The correct answer is **A**

- In order to get to the answer, the relationship between variances needed to be considered. The total material cost variance (\$4900 adverse) = Material price variance (\$4800 adverse) + material usage variance. Therefore the material usage variance is the balancing figure of \$100 adverse. The material usage variance = material mix variance + material yield variance. We now have to calculate the material mix variance (in order to replace in the equation above) from the information given in the question as shown in the table below:

Material	Standard ratio	Actual quantity in standard mix (AQSM)	Actual quantity in actual mix (AQAM)	Variance (Litres)	Standard cost per litre (\$)	Variance (\$)
R	30%	1,800	1,900	100 A	63	6,300 A
S	50%	3,000	2,800	200 F	50	10,000 F
T	20%	1,200	1,300	100 A	45	4,500 A
<b>Total</b>		<b>6,000</b>	<b>6,000</b>	<b>0</b>		<b>800 A</b>

Therefore, the material mix variance is \$800 adverse. As stated above, the material usage variance (\$100 adverse) = material mix variance (\$800 adverse) + material yield variance. Therefore the material yield is

\$700 Favourable (balancing figure)

- Selecting option B, \$800 Adverse is the material mix. This does not answer the question and hence this is not the correct answer.
- Selecting option C, \$800 Favourable is the material mix variance but the adverse variances were incorrectly recorded as favourable and vice versa.
- Selecting option D meant if the material mix is incorrectly calculated as \$800 favourable, then we would get the material yield as \$900 Adverse. Hence, this is not the correct answer.

**Example 2**

**Which of the following could lead to an increase in management bonus, without benefitting the organisation?**

- (1) A manager holds on to heavily depreciated assets in order to avoid heavy investment in the period
- (2) A manager in a manufacturing division uses absorption costing and builds up high levels of inventory
- (3) A sales manager changes their fixed target to a relative target based on market share

- A** 1 and 2 only  
**B** 1, 2 and 3  
**C** 1 only  
**D** 2 and 3 only

*What does this test?*

- ✓ The behavioural aspects of performance management.

*What is the correct answer?*

- ✓ The correct answer is **A**
- Statement 1: holding on to heavily depreciated assets gives a low figure for 'capital employed' which, in turn, gives a higher figure for ROI which could lead to bonuses for divisional managers. However, there are likely to be higher running costs for an old machine, making the organisation less profitable than it might be. Low depreciation charges may also hide this but cash flow would be affected.
  - Statement 2: when a manufacturing division uses absorption costing, building high inventory levels will result in a large proportion of production overheads being carried from one period to the next in inventory. This increases the return figure benefiting the divisional managers if these are linked to bonuses but would only benefit the company if those units of inventory can be sold in the following period.
  - Statement 3: this is useful for the organisation as whole - by setting a relative target on market share when the market increases, then more sales are expected in absolute terms. This adds controllability to the organisation, since the sales manager could not be held responsible for a rise (or a fall) in the overall market. Since this target is outside of the control of the divisional managers, it is more likely to benefit the organisation rather than the divisional managers

**Section B**

Section B tests students' knowledge on a number of topics in more detail than section A, with three case questions of 5 two-mark objective test questions. The range of topics covered in the June 2018 examination was:

- Relevant costing
- Lifecycle costing
- Variances
- Throughput accounting
- Pricing
- Rolling budget

A few key points that came out of section B were:

- Read the case scenario and requirements very carefully. This goes for the whole exam, but any objective test question is 'all or nothing' – if you misread the requirement or miss a vital piece of information from the scenario and get the answer incorrect you score zero for that question. This applies also to instructions on how to round your answers.
- Cover the whole syllabus. The list above should highlight this – F5 has a large syllabus which can be daunting, but it is essential to have a broad knowledge. If, for example, a section B case covering variances comes up and you haven't covered this in your studies, the 10 marks available are left to chance.
- Be able to apply your knowledge of theories/techniques to the scenario given, as in the case questions these areas will often be examined in the context of the case. It is important that you are able to apply the logic of a concept or theory to a problem and so you need to understand the method and why you are doing the calculations and not just focus on how to do the calculations.

## **Section C**

Candidates were presented with questions drawn mainly from the areas of:

- Performance management
- Risk and uncertainty
- Relevant costing
- Budgeting
- Transfer pricing

### **Performance management**

This area of the syllabus requires candidates to be able to analyse a business's performance from a variety of perspectives (including financial and non-financial factors) and explain the performance over a given timeframe or against budget or in comparison to a competitor. Often candidates have to give careful consideration to what the organisation has set out to achieve, as detailed in the scenario. There were three questions covering this subject area in the June exams, covering performance management in a variety of settings. The businesses in question included a large manufacturing company, a smaller service sector company and a public sector organisation. Whilst in one question the focus was on ascertaining the extent to which the organisation had achieved its

objectives over the period and explaining the difficulties of assessing performance in this context, another was from a divisional performance perspective and included appraising an investment, similar in this regard to Sports Co from September/December 2017's published exam. The third question involved identifying goals and performance measures in the context of the balanced scorecard.

Where candidates are asked to identify goals and performance measures, it is important that they distinguish between the two. For example, if a business was considering goals under the customer perspective of the balanced scorecard, a goal might be 'to increase the number of repeat customers booking holidays'. The performance measure would then be the 'percentage increase in the customer return rate.' In questions of this nature, candidates are often asked to explain/justify the goals/measures given. This is to make sure that the goals/measures relate to the information given about the business in the scenario and are not purely generic points. A common problem we find is that candidates do not structure goals as goals nor measures as measures; they simply write a paragraph stating what the company needs to focus on. They do not answer what the question asked and it is therefore very difficult to award any marks. Also, if a question does ask for goals/measures relating to each perspective of the balanced scorecard, for example, it's important that the perspective headings are used. Under those perspectives candidates should then use headings for the goals and the measures so that the markers know which one is which.

If, on the other hand, a candidate is not being asked to generate goals and measures but instead is answering a question asking candidates to assess performance in relation to an organisation's objectives, again, this time it is **essential** to use the objectives as headings.

Finally, as regards divisional performance measurement questions, when calculating ROI for a division, it is important that the business' controllable profit is used wherever possible rather than a profit figure that has been calculated after deducting uncontrollable costs. Then additionally, if the profit figures being used are for one quarter, for example, then an annualised ROI figure can only be found by multiplying the quarterly ROI by 4. Candidates often forget to do this where the profit figures are for a period of less than one year. If, on the other hand, the ROI of **an investment** is asked for rather than the one of the division as a whole, candidates should include only the profit flows and capital flows relating to the investment itself. The only time you would include the business' other profit and assets in the calculation is when asked for the ROI of a division **after** an investment has been made. This is an error that keeps on occurring in F5 exams and happens probably because of a lack of careful reading of the requirements.

### **Risk and uncertainty**

This is an important area in F5 and it continues to be a challenge for candidates. Questions in this area include calculating profit values for a range of possible outcomes, interpreting decision trees, calculating expected values (sometimes incorporating joint probabilities), preparing minimax regret tables, using the maximax and maximin criteria, perfect and imperfect information etc. Starting with requirements that ask candidates to calculate profit values for a range of outcomes, the first thing to note is that calculating profit involves consideration of both revenues and costs. Candidates sometimes seem to forget about costs altogether or forget that there may be both fixed and variable costs. Moving on to requirements asking candidates to calculate the expected value of a project in a situation where there are joint probabilities, candidates should note that it is possible to

do a calculation that is quicker than multiplying each possible profit figure by each joint probability and then adding them up. Instead, they can calculate the expected value of revenues, then deduct the expected value of their variable costs and then of their fixed costs. This will save valuable time. Any subsequent discussion in questions about expected value as a decision criterion must be sure to focus on the fact that it is unsuitable for one-off decisions as it is a long-run average of a decision repeated many times. Also, whether or not it is a good criterion in a particular situation depends on the attitude of the decision-maker to risk. This is often overlooked by candidates.

### Relevant costing

Specifically, the relevant costing question was a 'lowest cost estimate' decision i.e. calculate the minimum cost for a contract and explain why all costs have been included or excluded. It followed a very similar format to a question that again was to be found in the published December 2014 exam, question 3. This again highlights the importance of thorough preparation. There are many resources available on the ACCA's website which will help candidates prepare and past exam questions are one of the best ways to help cover the syllabus and get used to the style of the questions.

Candidates were able to score some marks in this question by doing the basics well i.e. identifying relevant and non-relevant costs and calculating the minimum cost. However, the question was clear in its requirement to explain clearly why costs had been included **or excluded** in the relevant cost statement and it was here that candidates did not score well. The main reason for marks not being scored is because explanations were only given for the costs included and **not given for the costs EXCLUDED**. It highlights the importance of reading the requirements carefully.

As regards to the numbers, the most common error was using financial accounting principles to value inventory rather than using relevant cost principles. Also, whilst most answers correctly recognised that the supervisor's costs were NOT relevant, many erroneously included general overheads even though an apportionment of general overheads (not specific) is never relevant to a relevant cost statement.

Candidates may notice that the examiner's report for this area is very much the same as that in December 2017. It is disappointing to see that these points are not being taken on board by the majority of candidates.

### Budgeting

The budgeting question involved calculating budgeted costs for various decision packages in an organisation and then comparing them and recommending the best course of action. The most common mistakes that candidates made in their calculations were failing to increase the material cost to allow for an increase in activity and failing to inflate the overhead costs. The discussion that followed the calculations was generally well-answered, with most candidates being able to interpret their numbers correctly. However, a minority of candidates scored poorly by making bland comments such as 'Decision package 1 increases costs by 10%, which is bad.' Part (c) of the question asked candidates to 'explain' something and, as is often the case, candidates tended to 'list' instead of 'explain', thus losing marks for lack of depth.

## Transfer pricing

Finally, the other topic examined in June 2018 was transfer pricing, never very popular with candidates. As is often the case in these questions, there were some simple marks for preparing profit statements for each of the divisions and the company. The best approach here is always to put the narrative on the left hand side of the page and then have one column for each of the divisions and another for the company itself. External and internal sales should be split out and any internal purchase costs should also be split out. The internal sales/purchases do not need to be shown in the company column. Transfer pricing questions also often ask candidates to calculate a minimum transfer price. When a division has spare capacity, the opportunity cost of that spare capacity is 0, therefore the minimum transfer price will always simply be the marginal cost per unit. However many times this area is examined, it is still an area where understanding seems to be generally lacking. A good question to refer to is the Portable Garage (PG Co) which was one of the sample questions published from the March/June 2018 exams.

## Exam technique on F5 exams

As always, exam technique is an important aspect of success in any exam. Throughout this report the importance of reading and interpreting requirements very carefully has been reiterated many times; failure to do this is often the cause of poor scores. The tendency for some candidates is to answer the question that they want to get rather than answering the question which they have been given.

As the number of candidates sitting F5 by CBE continues to grow, two potential points arise. Firstly, it takes a little more effort to make sure that the requirements are properly broken down when reading them as they can be split over several screens. So, at the start of an answer, candidates should do a small plan in which they have broken down a requirement and asked themselves how many things they are being asked to do, making sure that they consider all aspects of the requirement. Secondly, however, it is easier to be more focussed when answering a question using word processing skills and spreadsheets, as the mere fact that you can see more clearly what you have written helps avoid the temptation to discuss things that are irrelevant. Also, if you realise that you have missed a point out from an earlier part of a question, it is easier to go back and insert it in the correct place. This would have been particularly useful in the performance management question that required candidates to answer the question using the headings taken from the scenario.

Finally, please remember to use the spreadsheet functionality available. Totals should be calculated by inserting formulae rather than typing in the number.

## Guidance and Learning Support resources to help you succeed in your exam

Preparing for the F5 exam may appear daunting but there are many resources available to help you. There are many technical articles available on the topics in this report. In addition all the past exams referred to are available for your use. You should refer to these throughout your studies. Please make sure that you visit the ACCA's website and look at everything available to you. There are also plenty of support materials to help you feel confident about taking your exams on CBE.



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