Examiner's report

F5 Performance Management

December 2015

General Comments

There were two sections to the examination paper and all of the questions were compulsory. Section A consisted of 20 multiple choice questions (two marks each) which covered a broad range of syllabus topics. Section B had three shorter questions (worth 10 marks each) and two longer questions (worth 15 marks each). The Section B questions covered all of the key syllabus areas.
The following paragraphs report on each section and focus on some of the key learning points.

Specific Comments

Section A

It was pleasing to see that the majority of candidates attempted all of the questions. As usual, candidates preparing for the next examination of F5 are advised to carefully read the sample question discussed here and to carefully review how the correct answer was derived. The following question is reviewed with the aim of giving future candidates an indication of the types of questions asked, guidance on dealing with exam questions and to provide a technical debrief on relevant costing.
Question To make a special order, labour will have to be transferred from the production of Product X, which earns a contribution of $24 per unit made. Each unit of Product X requires 0.5 hours of labour, which is paid at $24 per hour.

The special order will require 100 hours of labour and 500 hours of machine time. The variable cost of running the machine is $30 per hour.

What are the total relevant costs for labour and machine time that should be included in the cost of the special order?

A $22,200
B $10,200
C $19,800
D $17,400

The answer to the question is A. This is calculated as follows:-
Labour: direct cost = 100 x $24 = $2,400
Lost contribution = 100/0.5 x $24 = $4,800
Machine cost = 500 x $30 = $15,000
Total cost = $22,200

This type of relevant costing question usually causes a problem for candidates as it tests the concept of opportunity costs. The contribution from product X will be lost because of this special order. Consequently, the full cost of this lost contribution PLUS the direct labour cost must be included. The most common error which candidates make is excluding the direct labour cost as they think that this is irrelevant. It is relevant as it would have been charged to product X in arriving at product X's contribution; therefore instead, it must be charged to the special contract.

Candidates who had excluded the direct labour cost would have erroneously chosen option C, £19,800.

Candidates who dealt with the labour cost correctly but then misread the number of machine hours incorrectly as 100 would have chosen option B ($2,400+$4,800+$3,000). Candidates who failed to include the lost contribution would have selected answer D ($2,400+$15,000).

Section B

Question One

This was a variance question examining the area of mix and yield variances. Part (a) was calculative and part (b) was discursive.

Part (a) was generally well done. Candidates had to calculate the materials mix and materials yield variance for a product where the materials needed for it's production were measured in grams. Errors in the mix variance calculations were often caused by candidates using standard price *per unit* rather than *per kg* in both of their variance calculations, which is incorrect when valuing a variance in kgs. Also, in calculating the standard quantity in standard mix (SQSM) for the yield variance, many candidates erroneously used the standard cost card quantities provided in the question rather than looking at the actual output and identifying, based on the standard, what quantity of each material should have been required for that level of actual production.

In part (b), which asked for reasons why an **adverse** yield variance might arise, common errors/issues included were as follows:

- Failing to read the question properly and giving instead reasons for a **favourable** variance.
- Failure to expand upon *why* an issue may cause an adverse impact upon the yield.
- Many references to expensive materials which relates to **price** variances rather than yield variances.

On the whole, however, the question was well-answered.

Question Two

This question examined the theory of constraints and throughput accounting. In part (a) candidates had to explain what a table, which showed the theory of constraints operating, was demonstrating. The question was generally well-answered. However, weaker candidates just copied out parts of the table rather than explaining what was happening.

Part (b) asked for a calculation of the **net benefit** of 3 possible investment options. The options were to either Option 1: Invest in one item of machinery, P; or Option 2: invest in two items of machinery, P and T; or Option 3: invest in 3 items of machinery, P, T and A. Answers to this question were mixed.

There was some confusion over how to calculate 'net benefit.' The most common mistake was to include the existing throughput being earned, which was a figure given in the question, when calculating the net benefit. This approach was wrong since the benefit of each additional unit sold, in present value terms, had been given separately in the question and the investment decision should have been based on the incremental benefits and costs of each option.

Other errors included:

- Getting the order of the three options to consider wrong, rather than following the instructions which were given in the question.

- Failure to include the total investment cost each time a new option was considered (in Option 1 the cost of machine P; then in Option 2 the cost of machines P and T; then in Option 3 the cost of machines P and T and A).

Question Three

This was a purely discursive question on budgeting. Part (a) required candidates to discuss the whether the budgeting style being used was as described by the senior partner in his statement (he said he was using incremental and participative budgeting). Here, a number of candidates failed to answer the requirement which had been set and instead saw the word 'budgeting' and started discussing zero based budgets or rolling budgets.

Another major problem also came down to poor exam technique. Most candidates knew what the two budgeting styles being used were and could spot that the senior partner was budgeting badly, but they were unable to critique the style used in the way the question required them to. They simply needed to divide up the requirement into its two parts, look at the scenario and consider

- Incremental budgeting - What is it? Is the partner using it? Yes - why? No - why not?
- Participative budgeting - What is it? Is the partner using it? Yes - why? No - why not?

Many candidates also included superfluous detail regarding *how to improve the current situation* which was not what the question had asked. This meant that time was wasted that could have been spent earning marks elsewhere.

In part (b), the question asked for a discussion of the likely effect of the budgeting system ***on the partners***. Most candidates again failed to answer the question set because they did not consider the effect on the partners. Instead, they either made general comments about the advantages and disadvantages of the budgeting styles or they talked about the effect of them ***on the business*** rather than on the partners. Again, it was an exam technique issue rather than lack of syllabus knowledge. Since this is a skills paper rather than a knowledge paper, most of the time it will be necessary to apply knowledge.

Question Four

This question covered the area of divisional performance. It was a mix of calculations and discussion.

Part (a) required calculations of ROI and a justification of the figures being used for the calculation. Many candidates forgot to justify their figures and lost the opportunity to earn 2 marks straight away. From the information given in the scenario, it was fairly obvious that controllable profit should have been used for the calculation rather than net profit. However, if net profit had been used and was appropriately justified, it would have been acceptable. Unfortunately, as the justification was often missing, so was the opportunity to earn marks here. It was also noted that a number of candidates were not able to calculate ROI and instead calculated profit margins which was surprising.

In part (b) the bonuses of the managers had to be calculated. Full credit was given, as always, for calculations that followed on from the candidates' answers in part (a). It was attention to detail that let a majority of candidates down with inadequate reading of how the bonus was to be calculated. Usually, the rounding down to the nearest percentage was the biggest error, often because the ROI had been rounded down in part (a) and the candidate did not then take this into account in part (b).

Part (c) was purely discursive and was generally well done.

Question Five

Question 5 was a partly calculative and partly discursive question covering limiting factor analysis in a 'make or buy' context. Part (a) was a simple 3 mark requirement asking for a calculation of the manufacturing cost of a component and was very well-answered.

Part (b) was a more challenging requirement in which candidates had to calculate how many units of a component to make versus how many to buy in. It was difficult because the component, if made in-house, would also use the same resources as four of the company's other products, two of which were made **using the component itself** as well. This question provided an opportunity for really well-prepared candidates to stand out but it was also relatively straightforward for all candidates to earn most of the marks available for part (b) anyway. Many candidates earned most of the marks available for working out how many X needed to be made and bought in. However, in order to earn the other remaining marks, candidates should have also worked out the contribution per limiting factor for each of the products and the component, rather than just assuming that the component would be made last as many of them did. Overall, however, it was pleasing to see that so many decent attempts were made at this question.

In part (c), candidates had to discuss other factors which should be considered before deciding whether to start manufacturing the component internally. The main issue that arose was that lots of bullet points were just written out about the problems of outsourcing without thinking about the particular situation the company in the question was in. Here, the business was thinking about bringing production in house so the answer needed to be tailored to that. This meant that often marks were not earned because points being made were simply not relevant.

Conclusion

Overall, there were many good attempts at this paper and some really sound results. As is often the case, however, due to the issues raised above, some candidates were not successful this sitting. As highlighted above, this was often down to poor exam technique rather than poor knowledge.