MARK PLAN AND EXAMINER'S COMMENTARY – Strategic Business Management November 2014

This report includes:

- a summary of the scenario and requirements for each question
- the technical and skills marks available for each part of the requirement
- a description of how skills should be demonstrated
- detailed points for a full answer
- examiner's commentary on candidates' performance

The information set out below was that used to mark the questions. Markers were encouraged to use discretion and to award partial marks where a point was either not explained fully or made by implication.

Question 1 - Firebrand Forklift Trucks Ltd

Scenario

The scenario relates to a company (FFT) which manufactures diesel-powered forklift trucks. The company was established in 2009 as a spin-off from a large Japanese motor manufacturer, Jitsumi, from which FFT continues to purchase all of its diesel engines.

FFT made significant borrowings in 2009 in order to expand, but performance has been poor recently and the company has struggled to make its loan and overdraft interest payments. Moreover, the bank loan is due to be repaid in just over a month and FFT does not have sufficient funding to repay the loan. The bank is considering whether to put FFT into administration. Meanwhile, it has given the FFT board the opportunity to put together a recovery plan in the form of a financial reconstruction.

The candidate is in the role of a senior working for a firm of business advisors (DH) which has been asked to help FFT with its recovery plan. One part of the reconstruction scheme is to offer customers the opportunity to lease forklift trucks, rather than buying them outright.

An additional issue is that Jitsumi, a major supplier, is proposing to stop supplying FFT unless an immediate payment is made in respect of previous purchases.

A further problem has arisen in that a journalist is accusing FFT of unethical trading and the FFT board has requested DH to advise it and provide support in this matter. The engagement partner is concerned about the ethical implications for DH from this aspect of the engagement.

Requirements	Technical & Skills	Skills assessed
Prepare a report which: Explains the decline in FFT's profit over the years ended 31 December 2012, 31 December 2013 and 31 December 2014. Recommend actions which may improve profitability in future.	13	• Understand and assimilate the data provided in a structured manner (eg a table) • Carry out data analysis to identify meaningful causal relationships between different elements of the data • Identify and explain trends in the data over the three-year period, including annual data for each of the three years • Provide a qualitative interpretation of the interrelationships • Provide qualitative analysis of causal relationships impacting on performance • Use judgement to conclude on the primary reasons for the decline in performance. • Recommend actions which may improve profitability

With respect to the financial reconstruction scheme: • Evaluates the effects of the scheme and compares these with the effects of liquidation, setting out the benefits and risks for the various stakeholders and providing supporting calculations. • Shows and explains the financial reporting implications for the financial statements for the year ending 31 December 2014 if, at that date, negotiations are still ongoing between FFT and the bank regarding a restructuring of the loan.	17 8	• Set out and explain the impact on each stakeholder arising from liquidation • Compare the effects of the reconstruction scheme with liquidation for each stakeholder • Assess with professional scepticism the forecasts made and the risks for stakeholders of these forecasts not being achieved • Use judgement to provide a reasoned conclusion for each stakeholder • Identify the conditions under which going concern would be appropriate for FFT in accordance with its negotiations with the bank • Identify the consequences for FFT's financial statements if going concern conditions are not satisfied • Note IAS 10 conditions in negotiations up to the date the financial statements are authorised for issue • Identify the onerous contract with Jitsumi per IAS 37 and state accounting treatment
With respect to the proposal to boost revenue: • Evaluates, with supporting calculations, the benefits and risks to FFT of leasing, compared with selling, the FZ101 forklift truck to customers. • Explains how a lease for an FZ101 forklift truck would be treated in the FFT financial statements.	5 5	• Compare the NPV of leasing and of a sale using effective quarterly interest rates • Identify the liquidity issue • Note additional sales may be made but not if there continues to be a production capacity constraint • Identify dealer-lessor relationship • Identify and justify the type of lease • Set out accounting treatment
Advises the FFT board how it should respond to the email from the journalist. Please indicate any future actions that FFT should take with regard to this matter, now that the issue has been brought to its attention.	6	• Identify the issue of responsibility for providing clear information • Identify issue of possible responsibility for misuse after sale. • Identify legality as a key issue • Recommend actions to FFT
Set out any ethical issues for DH arising from giving advice to FFT in response to the journalist's communication.	6	• Set out the ethical principles • Explain the implications for DH
Maximum marks	**60**	

Examiner's comments

Requirement 1 – Analysis of decline in profit

Candidates answered this requirement well. The majority of answers were good and better candidates provided an insightful discussion of the issues. Candidates calculated relevant metrics that were able to be used to further the discussion and make reasoned recommendations to FFT. Many candidates spotted a key issue of the backlog and made appropriate recommendations to improve efficiency and also considered increasing prices to ease the backlog.
The majority of candidates also correctly identified the onerous contract with Jitsumi and recommended renegotiation. Better candidates tended to present an initial table with quantitative analysis of the key data, which was then used to provide a qualitative interpretation of the data. Weaker candidates merely provided a few random calculations within their narrative.

Requirement 2 – Financial reconstruction

This requirement generated a variable standard of answers. Many candidates identified the correct figures for funds generated on liquidation and the amount the bank would recover. Fewer candidates were able to calculate the amount the liquidator would pay to creditors holding a floating charge.

There was a reasonable level of explanation provided by most candidates in comparing the effects of liquidation with the effects of the financial reconstruction scheme for each of the relevant stakeholders. Better candidates had a separate section for each of the major stakeholders which analysed the specific factors arising from liquidation and reconstruction for that particular stakeholder group, with supporting calculations. Weaker candidates merged their discussion of the effects of liquidation and the financial reconstruction scheme into a common narrative for all stakeholders, with few supporting calculations. In discussing the viewpoint of the shareholders, although relevant calculations were often performed, only a small number of candidates discussed the potential reluctance of shareholders to reinvest and the possibly optimistic income projections.

Many candidates identified the financial reporting implications, however, the discussion was in most cases largely descriptive and warranted only moderate marks. Only a very small number of candidates went on to discuss relevant accounting standards in relation to going concern.

Requirement 3 – Leasing proposal

The main area of oversight on this requirement by candidates was the need to calculate a quarterly interest rate. Nearly all candidates used an annual interest rate in calculations. However, the discussion of the financing package was generally good for most candidates and they scored relatively high marks on this part of the requirement.
A large number of candidates quoted IAS17 but some identified the lease arrangement as a finance lease. Although lengthy explanations were given, these often missed the main features of the lease arrangement for the FZ101 and went on to arrive at the wrong conclusion. Credit was awarded for the treatment of the lease, irrespective of the type of lease identified by candidates.

Requirement 4 – Email from Journalist

The responses to the journalist's e-mail were, on the whole, well considered and displayed a high level of public relations awareness by the candidates, although there was less awareness of issues surrounding corporate responsibility. Although many candidates identified that what customers did with their products, once purchased, was out of the control of FFT, a number of candidates suggested that FFT should stop sales to customers who could not prove they would not use the truck indoors.

Requirement 5 – Ethical issues

Overall the performance on this requirement was disappointing. A large number of responses tended to be very generic in nature, describing advocacy and self-interest threats. The majority of candidates failed to discuss the main ethical issues of transparency and honesty. A number of candidates merged their answer to this

requirement with that of the previous requirement relating to the journalist's email. Weaker candidates did not attempt this requirement at all.

General comment

As a general issue of presentation, candidates are advised to ensure that their answer to each requirement is separately and clearly identified. Commencing each requirement on a new page with a clear heading for each requirement is a practice carried out by many of the better candidates.
Additionally, although it is not required, answering the requirements in the order in which they appear on the question paper may be advantageous, as earlier requirements may generate data or discussion which may be relevant to later requirements in the same question. Most of the better candidates answer the requirements in order.

(1) Decline in profit

	Forecast 2014	Actual 2013	Actual 2012
% change sales revenue	(3.9%)	(1.3%)	
% change sales volumes	1.7%	4.2%	
% change gross profit	(3.8%)	(7.9%)	
% change operating profit	(41.2%)	(154.2%)	
Gross profit %	28.0%	28.0%	30.0%
Operating (loss)/profit%	(1.2%)	(0.7%)	1.3%
Price per truck £	17,000	18,001	18,998
% change in price	(5.6%)	(5.2%)	
Operating profit per truck £	(204)	(132)	251
Backlog (days)	152	122	91

Revenue

There has been a clear decline in sales revenues over the period 2012 to 2014 represented by decreases of 3.9% in 2014 and 1.3% in 2013.

Sales volumes and prices are two possible causes of why these decreases in sales revenues have occurred. However, sales volumes have actually increased by 1.7% in 2014 and 4.2% in 2013, so this was not the cause of the decrease in revenues.

The explanation therefore relates to decreases in average prices of 5.6% in 2014 and 5.2% in 2013, which outweigh the volume increases. In trying to identify underlying causal factors, it may be that there has been a uniform decrease in price in an attempt to sell more units. This explanation may lack plausibility, however, due to the backlog in demand, which means it would be difficult to satisfy a price induced demand increase as production is at capacity. Also, if this was the policy, then it appears unsuccessful with inelastic demand producing a fall in revenues.

An alternative explanation is a change in the product mix being sold, with a higher proportion of lower price trucks being purchased by customers in 2014 compared to earlier years.

Profits

Despite the decrease in selling price, the gross profit % remained constant at 28% in 2014 compared with 2013. The may be indicative that the mix argument may have weight as, although prices were lower, the cost of sales was also commensurately lower. The gross profit margin was however lower in 2014 and 2013, compared to 2012, when it was 30%.

In looking at absolute figures, rather than % margins, gross profit decreased by 3.8% in 2014 and 7.9% in 2013, thereby setting the conditions for an operating loss.

Indeed, while administrative expenses and distribution costs have been reduced in 2013 and again in 2014 this has not been sufficient to prevent an operating loss being made due to the lower gross profit.

Operating efficiency

A key factor in generating the loss has been an inability to satisfy customer demand as reflected in the backlog of unsatisfied orders. In terms of days sales, the backlog has grown from 91 days in 2012; to 122 days in 2013; and then to 152 days in 2014 (16,350/39,235 x 365 days). At 2014 prices this represents approximately £278 million in lost sales which, at the average gross margin, would mean £77.9 million in lost profit.

The raw backlog figures may also understate the severity of the problem, as there may be many customers who would wish to buy from FFT, but are unwilling to wait and therefore have not placed orders.

Improvements in operating efficiency may generate an ability to satisfy the backlog by increasing capacity and therefore increasing sales volumes, which could generate significant additional revenue and profit.

Recommendations for actions

Possible actions could be:

- Improve operating efficiency to generate greater output from the existing asset base. For example review operating management procedures, labour productivity and production scheduling.
- Increase the scale of operation by investing in new assets to raise production capacity.
- Increase prices until the backlog is removed or reduced through lower demand at higher prices.
- Renegotiate the onerous contract with Jitsumi – as it has a significant amount to lose if FFT is forced into liquidation.

(2) Financial reconstruction plan

2.1 Evaluation

Liquidation

Funds generated on liquidation (legal rights)

	£'000
Property, plant and equipment	83,300
Inventories	13,300
Trade receivables	19,500
Total	**116,100**

With a liquidation, the funds would be distributed:

	£'000
Proceeds	116,100
Liquidator's fee	(3,200)
	112,900
Paid to holders of fixed charge: (PPE proceeds)	(83,300)
Remaining funds	29,600

The remainder of the fixed charge in respect of the loan becomes a floating charge ie £16.7m (£100m – £83.3m)

Floating charge:

	£'000
Loan	16,700
Overdraft	35,300
	52,000

Funds available: (£112.9m - £83.3m) £29.6m

The liquidator would pay 56.9p in the £ to creditors holding a floating charge.

Unsecured creditors and shareholders would receive nothing (but see tutorial note below).

Overall, the bank would recover £112.9m (£83.3m + £29.6m) of the £135.3m owing to it. This is an 83.4% recovery giving a write off to the bank of £22.4m.

Tutorial note: Unsecured creditors would actually receive a small sum as the prescribed part.

Comparison of liquidation and financial reconstruction scheme

If the proposed financial reconstruction goes ahead on the suggested terms then stakeholders will be impacted in a variety of ways as follows:

Kittminster Bank

Under the proposed reconstruction scheme Kittminster Bank is being offered a medium term loan at 8% of £120 million. This is greater than the £112.9m which would be received by the bank under statutory liquidation terms but there are a number of further factors to consider:

- Under liquidation, the bank has cash of £112.9m to reinvest elsewhere and is able to reassess the risk of the new investment
- Under the financial reconstruction the £120m remains invested in FFT and therefore continues to be risk capital
- The new 8% interest rate is a higher return for the bank than previously at 5% but the risks are likely to be different (or at least the perceived risks) so an assessment needs to be made of the adequacy of the 8% return for the risks now to be taken by the bank following the reconstruction
- The shareholders would inject new equity capital under the reconstruction scheme which would lower gearing and lower the risk of the bank. This assumes that they are willing to invest again (see below)
- If the projected operating profit of £14m is achieved, there may be a reasonable return overall (but assurance over this figure will be needed) and there would be sufficient earnings to pay interest in future with a margin of safety as follows:

	£'000
Operating profit	14,000
Interest (£120m x 8 %)	(9,600)
Profit before tax	4,400
Tax	(880)
Profit after tax	3,520

This gives an interest cover of 1.46

An alternative way of considering the issue is to look at sensitivity, such that if operating profit falls by 31.4% there is only just enough profit to cover interest (interest cover of 1) and nothing is left over for shareholders.

Shareholders

On liquidation, the shareholders would not receive any distribution.

Under the reconstruction scheme they would be required to inject £10 million of new capital and they are assumed to require a 10% return on this capital.

The original loss on existing share capital is a sunk cost so the current question for shareholders is whether the £10 million injection is as good as a new stand-alone investment.

The forecast annual return is £3.52m which is 35.2%. An alternative way of examining the issue is that discounted in perpetuity at 10% the income stream would be worth £35.2 million for a £10 million investment.

However, a degree of professional scepticism needs to be applied to the projections as there appears to be no supporting evidence for these figures and FFT management have strong incentives for optimism to persuade shareholders to invest.

Trade suppliers

Suppliers have a lot to lose from liquidation and have no direct control over this decision.

Suppliers are unsecured creditors and would not receive any distribution on liquidation (other than a small amount in respect of the prescribed part) whereas they are intended to be paid £2m under the reconstruction scheme and, if FFT continues to operate, then in time they may receive full repayment. It is not clear from the terms of the arrangement whether operating cash flows would be sufficient to pay the suppliers. On liquidation, suppliers would also lose a future customer and the profits on this business.

For Jitsumi the long term contract with FFT would be void on liquidation and any excess profits being earned on this contract would be lost in future.

As a result, it may be unnecessarily generous to pay suppliers £2 million in a reconstruction scheme and it may be an opportunity to renegotiate contracts and search for alternative suppliers.

If the suppliers attempted to force settlement through the courts they would not receive anything on liquidation, as the secured creditor (the bank) would stand ahead of them.

2.2 Financial reporting

According to IAS 1, going concern means that an entity is normally viewed as continuing in operation for the foreseeable future. Financial statements are prepared on the going concern basis unless FFT management either intends to liquidate the entity or to cease trading or has no realistic alternative but to do so.

IAS 1 *Presentation of financial statements* makes the following points:

- In assessing whether the entity is a going concern management must look at least twelve months into the future measured from the end of the reporting period (not from the date the financial statements are approved). Realistically the negotiations with the Kittminster Bank should be completed by then.
- Uncertainties that may cast significant doubt on the entity's ability to continue should be disclosed. This would require disclosure of the situation when the financial statements are authorised for issue. Although the negotiations with Kittminster may not be completed by 31 December 2014, they may well be completed when the financial statements are authorised for issue. Full disclosure of the agreement could then take place.
- If the going concern assumption is not followed (eg because the negotiations have been concluded and the liquidation decision has been decided upon, or it is apparent that this is the most probable outcome) that fact must be disclosed together with:

  a. The basis on which financial statements have been prepared
  b. The reasons why the entity is not considered to be a going concern
- IFRSs do not prescribe the basis to be used if the going concern assumption is no longer considered appropriate. A liquidation or break-up basis may be appropriate, using the values provided in Exhibit 4, but the terms of the insolvency arrangement may also dictate the form of preparation.

When making the judgement of whether the going concern basis is not appropriate, the following indications taken from International Standards on Auditing. ISA 570 *Going Concern*, may be significant in highlighting the following:

(a) Financial indicators, in this case the default on the Kittminster Bank.

(b) Operating matters, competitive conditions leading to operating losses

(c) Other matters

In relation to going concern, IAS 10 *Events after the reporting period* states that, where operating results and the financial position have deteriorated after the reporting period, it may be necessary to reconsider whether the going concern assumptions remains appropriate.

In addition, it may be appropriate to make a provision for the onerous contract with Jitsumi.

All bank borrowings will be shown as immediately repayable at year end – ie bank loan is a current liability.

(3) New financing package for customers

3.1 Evaluation

If 8.24% is the annual interest rate, then the quarterly rate is $1.0824^{1/4} - 1 = 2\%$

We therefore need to discount the quarterly income stream of 12 receipts of £1,200 over 3 years and residual of £4,000 after 3 years as follows:

$(AF12@2\% \times £1{,}200) + 4{,}000/(1.0824)^3$

= £12,696 + £3,154

= £15,850

On this basis that the present value of the lease rental receipts is lower than the cash sale price. This would indicate that if this scheme came into operation FFT would be worse off if a customer substituted a leasing arrangement for a straight purchase at £16,200.

In addition, there is liquidity risk whereby, if running out of cash continues to be a problem then leasing will defer cash receipts compared with a straight sale and thereby add to liquidity problems.

In favour of the leasing arrangement it may be attractive to customers, particularly if they themselves have liquidity issues. It may therefore generate additional customer orders. However this is only of benefit if the production capacity is increased and the backlog of unfulfilled orders is reduced or removed, so the additional orders can be satisfied.

3.2 Financial reporting

FFT would be recognised as a dealer lessor in accordance with IAS17.

It would appear that, on balance, the lease arrangement for the FZ101 is an operating lease. This is indicated by:

- The useful life appears to be significantly longer than the lease term (some lease contracts in the industry are for six years and if this also applies to the FZ101 then the lease term is only half of the useful life).
- The residual value of £4,000 after three years indicates that the FFT as lessor retains material risks and rewards in the asset. (Using the interest rate provided as an approximation to the implicit interest rate then, using the above calculations, the present value of the residual at £3,154 is almost 20% of the fair value of the asset).

As a consequence, the rentals are credited to the statement of profit or loss over lease term on a straight line basis. Thus, for any one year, credit would be taken as revenue for £4,800 per machine.

In the statement of financial position of FFT the FZ101 would continue to be recognised as an asset, as risks and rewards have not transferred to the lessee.

No selling profit is recognised by FFT on entering into the operating lease because it is not the equivalent of a sale (IAS17 para 55).

4. Advice to FFT

The formal response should be minimal at this stage until the full facts of the situation are established.

There appear to be two issues:

(1) Is FFT providing clear instructions such that customers are aware that they should not use FFT trucks indoors as they have diesel engines which can cause harmful emissions?

(2) Has FFT any responsibility for customers who, having understood the instructions and are therefore aware of the emission issues, decide to use them in an inappropriate way.

FFT claims to make clear that its diesel engine forklift trucks should not be used indoors. It does this both prior to the sale and in the documentation accompanying the product when it is delivered.

FFT should look again at its documentation and procedures to ensure that a full understanding is conveyed. It may not necessarily be the duty of FFT to provide this information in every local language, so long as the information is communicated clearly. Legal advice should be obtained in this respect.

Regarding the use of the vehicles indoors, this may be illegal or legal depending on the countries in which they are being operated. It may be that FFT does not have responsibility or liability in this respect for the way in which the vehicle has been used. It cannot know or monitor every customer's usage, nor be responsible for the consequences of reckless actions so long as it has made the customer aware of the appropriate usage. Where it becomes aware of illegal behaviour it should consider its duty to disclose to the relevant authorities based on legal advice.

Overall, the incident raises question of FFT's corporate responsibility which need to be addressed in order to protect reputation. In this respect, FFT needs to manage the underlying substance of the accusations and also the related capacity of the publicity to change perceptions of customers, potential customers and other stakeholders.

5. Ethical implications for DH

It is important with any ethical issue that we first obtain the facts, rather than rely on information from the journalist or FFT.

Having established the facts we need to make a judgement whether FFT has acted legally, ethically and appropriately before providing any type of support in this matter. It is not appropriate to provide legal or technical support which is outside our firm's areas of expertise.

With regard to the instructions accompanying the vehicle, the ethical issue is one of transparency. This means that FFT needs to have made clear how the trucks can be used and conveyed an understanding of this irrespective of the language.

An additional ethical issue is honesty. The FFT board needs to ensure that FFT staff have not tried to claim that the trucks are suitable for indoor use in order to make a sale.

If an illegal act has been, or is being, committed, we need to ascertain our responsibility as to whether we have a duty to disclose this matter to the appropriate authorities in the relevant jurisdiction. We should take our own legal advice in this respect.

It may not be appropriate to support FFT in any legal dispute as this may give rise to an advocacy threat.

Question 2 – Washing Solutions Ltd

Scenario

The scenario relates to a company (WS) that has two divisions: (the Industrial Division and the Household Division) each manufacturing a different type of washing machine.

The candidate is in the role of a senior working for XYZ, which is a firm of ICAEW Chartered Accountants that acts as business advisors for WS.

The Industrial Division makes a range of large, industrial washing machines, where sales to the public sector are achieved by winning government tenders. The Household Division makes a range of washing machines for use in private households where customers are large private sector retailers.

At the beginning of the current year, the Industrial Division implemented a strategy of quality improvement. This required additional labour hours and some overhead costs, which increased tender prices. Since the quality improvement changes were made, and tender prices increased, the number of tenders won has declined significantly.

An additional issue is that the management accountant unsuccessfully introduced a new overhead cost allocation system, which has proved unhelpful and he has now been dismissed, so the validity of the budgetary information is in doubt.

One final issue is that a rival firm, Hexam, has offered to acquire the trade and assets of the Industrial Division in return for transferring some of its shares to WS. WS needs to decide whether to accept this offer. If it does so, due diligence is required, specifically in respect of the transfer of shares.

Requirements	Technical & Skills	Skills assessed
Analyse and explain, the decline in the Industrial Division's tendering success during the year ended 30 September 2014, compared with the year ended 30 September 2013.	10	• Analyse and assimilate the data provided in a structured manner (eg a table) • Carry out data analysis to identify key factors that differ from the prior year in the making of tenders • Carry out data analysis to identify key factors that differ from the prior year in the tender performance achieved (ie successful tenders) • Provide a reasoned conclusion
Explain with supporting calculations why the actual profit differs from the budgeted profit for each of the two divisions, and for the company as a whole, for the year ended 30 September 2014.	13	• Assimilate data and set out structured workings of actual and budgeted profit. • Compare actual and budgeted profit identifying key factors causing differences, particularly focusing on the treatment of overheads. • Provide divisional and company-wide analysis
Analyse and explain: • the effect that the overhead cost allocations had on pricing in the Industrial Division in the year ended 30 September 2014; and • the problems which arise in using the overhead cost allocations for valuing inventories for financial reporting purposes in the WS financial statements.	4 4	• Identify the key issue that overhead allocations magnify labour cost differences significantly, but are not incremental costs • Provide supporting calculations • Link prices to costs in identifying WS's error • Identify IAS 2 cost allocation rules for overheads and the issue of unrecovered overheads • Identify impairment issue for Industrial Division as costs exceed revenues

With regard to the offer from Hexam to acquire the Industrial Division, explain: • the strategic, operating and financial factors that the WS board needs to consider before deciding whether to sell the Industrial Division to Hexam; and	4	• Demonstrate a clear understanding of the loss of contribution from WS, despite the loss making position • Analyse the strategic impact on the viability of the remaining Retail Division • Identify issues of common processes and assets between the two divisions and the loss of synergy
• the risks arising, and the due diligence procedures that should be carried out by WS on Hexam, in respect of using shares as the consideration. I do not need all the normal due diligence procedures, only those relating to the extra risks arising from a consideration comprising shares, rather than cash.	5	• Clearly identify specific risks arising from the deal • Focus due diligence on the form of the consideration (ie shares) • Identify the issue of a valuation of a minority holding in an unlisted company
Maximum marks	**40**	

Examiner's comments

Requirement 1 – Tendering

Candidates performed very well on this requirement. The vast majority were able to calculate relevant metrics and then centred their discussion around these. Most candidates correctly identified the increase in price as the main driver for the fall in the tenders. Better candidates were able to enter into a discussion of the underlying causes and consequences of poor performance on tendering and provided reasoned recommendations to WS.

Requirement 2 – Actual v budgeted profit

The quality of answers by candidates to this requirement varied considerably, but overall they were disappointing. A large number of responses were poorly laid out and incorrectly calculated the actual and budget statements. Relatively few candidates calculated the correct total overhead figures. The narrative frequently substituted reasoned arguments with general discussion of. Many candidates also failed to explain adequately, or demonstrate quantitatively, the differences between actual profit and budgeted profit.

Requirement 3 – Overhead cost allocation and valuing inventories

This requirement had a mixed performance. Candidates displayed good levels of understanding of the effect of overhead allocations on pricing. However, only a small number identified that the incremental cost incurred arising from the quality improvements was £8 (one labour hour) plus the variable overhead element on labour hours of £16.
Most candidates correctly recognised IAS 2 in their discussions on valuing inventory and many provided a reasonable discussion of the impact for WS.

Requirement 4 – Hexam: Sale of division and due diligence

Many candidates chose to answer this part of Question 2 first. In the first part of this requirement, the majority of candidates split their discussion under the headings provided in the question: strategic factors, operating factors and financial factors. This was a good approach and candidates identified the key issues generally scoring well.
Answers regarding due diligence procedures tended to be too general and failed to focus on the key element required in the question relating to using shares as consideration.

(1) Tending performance

Data analysis – Industrial Division tenders

	2013	2014	% change
Number of tenders made	900	800	(11.1%)
Success rate	30%	10%	(66.7%)
Number of washing machines sold under successful tenders	8,100	1,760	(78.3%)
Number of machines per tender	28	25	(10.7%)
Number of machines per successful tender	30	22	(26.7%)
Price per machine tendered	£1,200	£1,400	16.7%
Price per machine sold	£1,200	£1,300	8.3%

Tenders made

There has been an 11.1% fall in the number of tenders made in 2014 compared to 2013. It is not clear whether this is because there were fewer tenders available from government, or whether WS considered it was not worth making some tenders due to the poor success rate. More information is need.

Tenders won

There has been a significant fall (66.7%) in the proportion of tenders won in 2014 compared to 2013. The most obvious apparent causal factor for the reduced tender success rate is the increase in the average price tendered, which has risen 16.7% from £1,200 to £1,400.

A word of caution is that we may not be comparing like with like in that the type of washing machine sold in 2014 may be larger or better than those in 2013.

However, we are informed that extra labour costs have been incurred with additional overhead allocated and that these have been built into the price for customers (see below). It seems therefore that the most obvious explanation is that the additional price charged has meant the loss of more tenders, notwithstanding the quality improvements.

Machines sold

The fall in the number of tenders won has resulted in the most revealing statistic which is the fall in the number of washing machines sold of 78.3%.

The fall in machines sold is actually greater than the fall in tenders won, because when tenders have been won they have been smaller in 2014 than 2013 by 26.6%, falling from 30 to 22 machines sold per tender won.

Conclusion

Overall the key factor has been the fall in tenders won due to the increase in price. This severely questions the reasons for the extent of the increase in price. This issue is addressed below when looking at the costing systems.

(2) Evaluation of performance

Data analysis – actual data

	2014		
	Industrial	**Household**	**Total**
	£'000	**£'000**	**£'000**
Sales	2,288.0	4,800.0	7,088.0
Materials	(809.6)	(1,488.0)	(2,297.6)
Labour	(70.4)	(192.0)	(262.4)
Variable overhead: set ups	(100.0)	(1,000.0)	(1,100.0)
Variable overhead: labour hours	(140.8)	(384.0)	(524.8)
Contribution	1,167.2	1,736.0	2,903.2
Fixed overhead			(3,225.2)
Loss			**(322.0)**

Reconciliation 2014

	£
Variable overhead set ups	1,100,000
Variable overhead labour hours	524,800
Fixed overhead (residual)	3,225,200
Total overhead (per exhibit 3A)	4,850,000

Overview

Based on actual data, the performance for the household division has been constant, while the performance of the industrial division has declined significantly. Whilst it still makes a positive contribution, the overall contribution of the Industrial Division has fallen by 74.9% from £4,651,600 to £1,167,200.

In the above table, fixed overhead costs are not allocated, but are treated as an actual company-wide cost. When these fixed costs are deducted, the company has made a small loss of £322,000 in 2014.

Budgetary cost allocations

	2014		
	Industrial	**Household**	**Total**
	£'000	**£'000**	**£'000**
Sales	2,288.0	4,800.0	7,088.0
Materials	(809.6)	(1,488.0)	(2,297.6)
Labour	(70.4)	(192.0)	(262.4)
Overhead allocated at £100 per budgeted labour hour	(4,000.0)	(2,400.0)	(6,400.0)
Budgeted profit	(2,592.0)	720.0	(1,872.0)
Over/(Under) recovery			**1,550.0
Profit/(Loss)			**(322.0)**

* £5.6m- £5.65m
** £6.4m - £4.85m

The above table shows that the cost allocation system attributes fixed overheads to each division. This method generates a significant loss for the Industrial Division for 2014 as the additional labour hours attribute not just additional labour cost but also the share of overhead which is allocated on a labour hours basis.

Additionally the high fixed cost budget has meant an over-recovery of fixed costs as actual overheads reflects the lower variable overhead cost which fell with the lower output in 2014.

Whilst the allocations distort divisional profit, the overall profit for the company is identical in both the above tables once adjustment is made for under/over recovery. This clearly shows that a profit in 2013 has turned into a loss in 2014.

The distortion in divisional profit through arbitrary overhead allocations between the two divisions shows a large loss for the industrial division. This can be contrasted with the positive contribution for the industrial division in the earlier table.

Reconciliation of actual profit with original budgeted profit

2014

	£
Original Budgeted profit (£300 x 8,000) + (£60 x12,000)	3,120,000
SVV [(1,760 – 8,000) x (£1,300-460-40)]	(4,992,000) (A)
Overhead expenditure variance (£6.4m – £4.85m)	1,550,000 (F)
Actual loss (see table above)	(322,000)

Tutorial note: alternative methods of presenting the information to explain why actual profit differs from the budgeted profit are acceptable.

(3) Effect of cost allocations

Effect on pricing

The key causal factor in reducing profit has been the fall in revenue from the Industrial Division. This in turn has arisen from pricing the product too highly in tenders. The high price seems to have stemmed from the effect of overhead cost allocations on the cost plus pricing policy.

The following analysis shows an apparent increase in full cost per unit of £100 for industrial machines (from £900 to £1,000).

Cost per unit:	**2013**	**2014**
	£	**£**
Materials	468	460
Labour (@ £8 per hour)	32	40
Overhead (@ £100 per labour hour)	400	500
Cost per unit	900	1,000

The selling price has also increased by £100 per unit (from £1,200 to £1,300), presumably in an attempt to cover the additional costs. In so doing, volumes sold and profit have fallen dramatically.

The error made was in assuming that costs had increased by £100 per unit when in fact the actual cost arising from the quality improvements only increased by one labour hour at £8; plus the variable overhead recovery element on labour hours of £16. This is a total of £24 additional costs incurred, rather than £100 which included arbitrary allocations of fixed costs. The fall in materials costs offered the opportunity to restrict the price increase further, although it is unclear whether this relates to the quality improvements.

The arbitrary allocation of fixed costs based on labour hours, when labour hours do not cause most of these costs, has led to an incorrect pricing decision.

If WS's present costing and pricing system continues, the government may no longer see WS as a cost efficient and effective supplier and remove it from the approved list.

Valuing inventory

Valuation of inventories is addressed by IAS 2. This standard permits production overhead to be included in inventory, based on the normal level of activity. This creates three problems for WS:

- Overheads appear to include all overheads for WS. Only production overheads are permitted by IAS 2 to be included in inventory values. The budgetary cost system therefore needs to identify administrative overheads separately.
- The 2014 is not the normal level of activity for WS for the Industrial Division, so some of the overhead will have to be written off in the period rather than carried forward into the next period as part of the value of inventories
- For the Industrial Division, the total cost appears to exceed the sales value. As a result these inventories would need to be written down to net realisable value.

As a consequence, the information gathered by the WS budgetary system would need to be adjusted in the above ways in order to determine a figure for inventories in the published financial statements.

(4) Offer from Hexam

Factors to consider

Strategic factors

The industrial division has been part of the long term strategy of WS for some time. There would appear to be some synergies between the household machines and industrial machines on the production side, even if not on the marketing side.

One poor year of performance, based on a mispricing decision that can be reversed, should not deflect WS from its long term strategy which appears to have been successful prior to 2014.

There therefore seems little imperative to alter the strategic direction either because of one bad year or because an offer is being considered by Hexam. There is however a strong need to review the changes to the costing systems and review the changes made to pricing and products.

Operating factors

There appear to be some joint processes between the industrial and household machines. The impact of removing the industrial division may therefore have a significant impact on the efficiency of the remaining Household Division production facility. Examples might be: under employed production lines; and specialist staff who work on both products who may be under employed.

Also at a practical level if there are shared assets between the two processes it is not clear whether these will be taken by Hexam (in which case WS may not have an operational factory or may need to buy new assets). Alternatively, if WS retains the assets, it is not clear what Hexam is buying.

Financial factors

The acceptance of any offer will depend on price. In this case, it is the value of the shares being offered in consideration. If this price is sufficiently high then this could compensate for the strategic and operational issues above and still make a deal acceptable to WS.

However, credibly, it may be doubtful if Hexam could gain sufficient additional value from operating the Industrial Division that such a price would be offered.

If the Industrial Division is sold, then there is a major financial issue for WS that in future it would need to cover all its fixed costs, which are a high proportion of total costs, just from the Household Division revenues

Risks and Due diligence

Hexam is an unlisted company hence there are significant risks around determining a value for Hexam shares.

There are further risks for determining the value of a minority holding of Hexam shares. This is particularly the case where the holding, as in this case, is less than 25%, so the majority shareholders can change the articles of

association. A shareholder agreement could provide some protection, but this would depend on the terms of the agreement.

In determining a value for Hexam, due diligence could obtain evidence from market transactions as a best source. For example:

- Has a bundle of shares in Hexham been acquired recently (eg by one of the private equity firms)
- Have credible offers been made for Hexham or a bundle of its shares
- Have companies similar to Hexham (size; same industry) been traded recently
- Have bundles of shares in companies similar to Hexham been traded recently

In the absence of such market evidence then models could be used to determine a value for Hexam (eg earnings growth models; free cash flow). Discounts on pro rata values would need to be made to reflect a lack of liquidity and a lack of control.

A key factor affecting any liquidity discount would be the level of certainty surrounding the possible AIM listing in 2018. If this occurs it would give a possible exit route for WS to sell Hexam shares. Given that most of the other shares are held by private equity there is some assurance that they also would wish to obtain an exit route through an AIM listing to realise their investment in the medium term.

Legal due diligence would be needed for any shareholder agreement. This could give rights to WS to protect their interest in the shares. For example, a right to a dividend or other distributions. Perhaps also the right for a seat on the Hexham board.