

Advanced Performance Management Specimen Exam – September 2022

Get to know your exam

These graphical representations are intended to give an indication of exam requirements and associated question content.

Please note that you will not be able to complete answers within these documents and in isolation they will not sufficiently prepare you for your exam.

We encourage you to visit the ACCA Practice Platform in order to attempt up to date practice exams within the computer-based exam environment.

Instruction screens





Advanced Performance Management (APM) Specimen – from September 2022 onwards

Welcome **#{user.fullName}** to the **#{examInformation.title}** exam.

You will now be presented with four instruction screens followed by an exam summary screen. The five screens will be available for 10 minutes in total.

Instructions (1 of 4)

The Workspace

- Your exam consists of a number of questions. Each question is presented in a workspace. Each workspace will include:
 - Introductory information for the question.
 - Exhibits – these contain the question scenario content broken down into sections or sources of information you will need to answer the question requirement(s).
 - Requirements – these list the requirement(s) you are expected to answer in the workspace.
 - Response Options – you may be presented with one or more word processor and/or spreadsheet response options within which to construct your answer.
- When selected, the exhibits, requirements and response options will display in windows, which can be moved and resized as required.
- You can close each window individually or close all windows at once by selecting  **Close All** on the top toolbar. Note that any answers you have entered into the response options will be saved and you can re-open them and change your answers at any time.
- There is a splitter bar which can be used for you to see more or less of the left or right hand side of the screen, as required.
- When using PDF exhibits in the exam, and you want to select text to highlight, strikethrough or copy, you need to select the 'text tool' button  at the top of the exhibit.
- You can highlight or strikethrough text in the introductory information, PDF exhibits or requirements by selecting  **Highlight** or  **Strikethrough**
- You can copy and paste between exhibits, requirements and response options by using the Ctrl-C (Copy) and Ctrl-V (Paste) shortcuts. **Note:** When pasting into a spreadsheet response from elsewhere in the workspace you must double-click the cell or select the formula bar.

Note: In a number of countries ACCA works in partnership with the national professional accountancy organisation in the delivery of examinations.




Next →

Instruction screens (continued)


Advanced Performance Management (APM) Specimen – from September 2022 onwards

Instructions (2 of 4)


Navigation

- The question number you are viewing is displayed in the top display bar. You can hide or restore this display by selecting 
- You can navigate between screens by selecting **Next**  or **Previous** , or by clicking on a question number from the Navigator or Item Review screens.
- You can revisit questions and change your answers at any time during the exam.




Time Remaining

- The time remaining for your exam continually updates and is displayed in the top display bar. You can hide or restore this display by clicking 
- You will be presented with a message confirming when you have 15 minutes remaining.


Flag for Review

- If you wish to revisit/review a question later in the exam, click  **Flag for Review**
- Click the button again to remove the flag.

Help

- Click the **Help** button provided to access:
 - A copy of these exam instructions.
 - Help and guidance on workspaces.
 - Formulae sheets/tax tables if your exam requires these. Note that the name of the Help button will indicate if formulae sheets/tax tables are available i.e.  **Help**,  **Help/Formulae Sheet** or  **Help/Tax Tables**

Calculator

- You have the option to use the on-screen standard or scientific calculators by selecting  **Calculator**
- Note that you are also permitted to use your own calculator providing it does not have the facility to store or display text.


← Previous Next →

Instruction screens (continued)


Advanced Performance Management (APM) Specimen – from September 2022 onwards

Instructions (3 of 4)


Workings/Scratch Pad

- You may use an on-screen Scratch Pad to make notes/workings by selecting  **Scratch Pad**
- You can cut and copy text from the Scratch Pad and paste into your response options using the Ctrl-C (Copy), Ctrl-X (Cut) and Ctrl-V (Paste) shortcuts, or the on-screen buttons. **Note:** When pasting into a spreadsheet response you must double-click the cell or select the formula bar.
- The Scratch Pad retains all notes/workings entered for all workspaces. These are available for the duration of the exam but will not be submitted for marking.
- You will also be provided with paper for notes/workings should you prefer to use it. This will be collected at the end of the exam and must not be removed from the exam room.
- **Important:**
 - The notes/workings entered onto the Scratch Pad or your workings paper will not be marked.
 - If you want the marker to see any notes/workings for question requirements you must show them within the relevant response options.

Symbol

- You can add a selection of currency symbols to your answers by selecting  **Symbol** on the top toolbar.

Navigator Screen

- Navigator can be accessed at any time during the exam by selecting  **Navigator**
- This screen allows you to jump to any question number in the exam.
- It also allows you to see the status of each question and whether it has been viewed, attempted or flagged for review.

← Previous Next →

Instruction screens (continued)

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Instructions (4 of 4)

Exiting the Exam

- The exam will automatically end when the allocated time has been reached.
- If, however, you wish to end the exam before this time you must:
 - Navigate to the **last question** in the exam.
 - Click **Next →**
- This takes you to the Item Review screen:

Item Review Screen

- This screen gives you an opportunity to see the flag and completion status of all questions before you finally exit the exam.
- You can select individual questions you wish to revisit, or quickly access groups of questions from this screen.
- During the item review period Navigator is not available however you can navigate to questions by selecting **Next →**, **← Previous** or **→ Review Screen**
- Once you have completed your item review and wish to finally end the exam click **End Exam**

Select **Next** to move to the Exam Summary screen.

← Previous Next →

Exam summary screen

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Exam Summary

Time allowed: 3 hours 15 minutes.

This exam is divided into two sections:

Section A

- One question worth 50 marks.
- 50 marks in total.

Section B

- Two questions, each worth 25 marks.
- 50 marks in total.

All questions are compulsory.

Select **Next** to start your exam.

← Previous Next →

Exam questions

Section A – summary screen

Advanced Performance Management (APM) Specimen – from September 2022 onwards

Flag for Review

Section A

This section of the exam contains **one question**.

This question is worth **50 marks** and is compulsory.


This exam section is worth **50 marks** in total.

Important:

You must:





- Indicate which requirement each of your responses relate to so that this is clear for markers.
- Show all notes/workings that you want the marker to see within your responses. Remember, any notes/workings made on the Scratch Pad or on your workings paper will not be marked.

Select **Next** to continue.






 Navigator Next →

Section A – question 1


Advanced Performance Management (APM) Specimen – from September 2022 onwards 1 of 3

S Symbol ▼ Highlight **T** Strikethrough  Calculator  Scratch Pad  Close All  Flag for Review



Exhibits

-  1. Organisation information
-  2. CSFs and KPIs
-  3. Value for money
-  4. League tables
-  5. Appendix 1

Requirements

-  Requirements (50 marks)


Response Options

-  Word Processor
-  Spreadsheet

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question:

1. Organisation information – the background, new mission statement and four key areas of action for the organisation: Deeland Police (DP).
2. CSFs and KPIs – details of work required by the chief executive officer (CEO) on the critical success factors (CSFs) and key performance indicators (KPIs) for DP.
3. Value for money – information on a request for an evaluation of the value for money (VFM) of the service provided by DP.
4. League tables – details of an evaluation required on the use of police force performance league tables.
5. Appendix 1 – data currently used when considering the performance of DP.

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

Help/Formulae Sheet ← Previous  Navigator Next →

Requirements

Requirements (50 marks)

It is now 1 September 20X5.

Write a report to the CEO of the Department for Internal Affairs to respond to his instructions for work on the following areas:

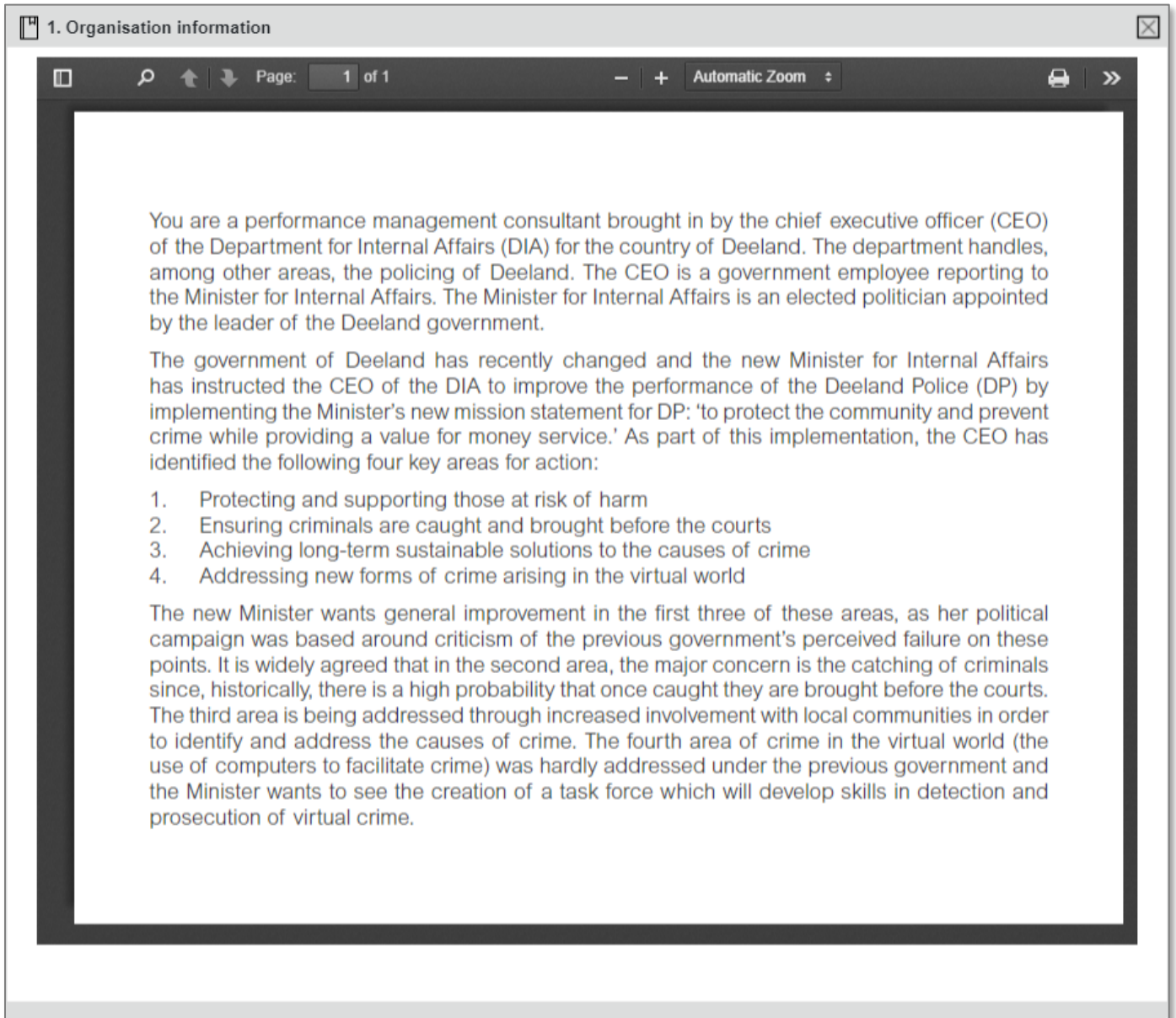
(i) the critical success factors and key performance indicators for Deeland Police; (16 marks)

(ii) an evaluation of the value for money service provided; and (14 marks)

(iii) the use of league tables in measuring the performance of Deeland Police. (10 marks)

Professional marks will be awarded for the demonstration of skill in communication, analysis and evaluation, scepticism and commercial acumen in your answer. (10 marks)

Exhibit 1



The image shows a screenshot of a PDF document viewer. The title bar at the top reads "1. Organisation information". The viewer interface includes a search icon, navigation arrows, "Page: 1 of 1", zoom controls with a minus sign, a plus sign, and the text "Automatic Zoom", a print icon, and a double arrow icon. The main content area contains the following text:

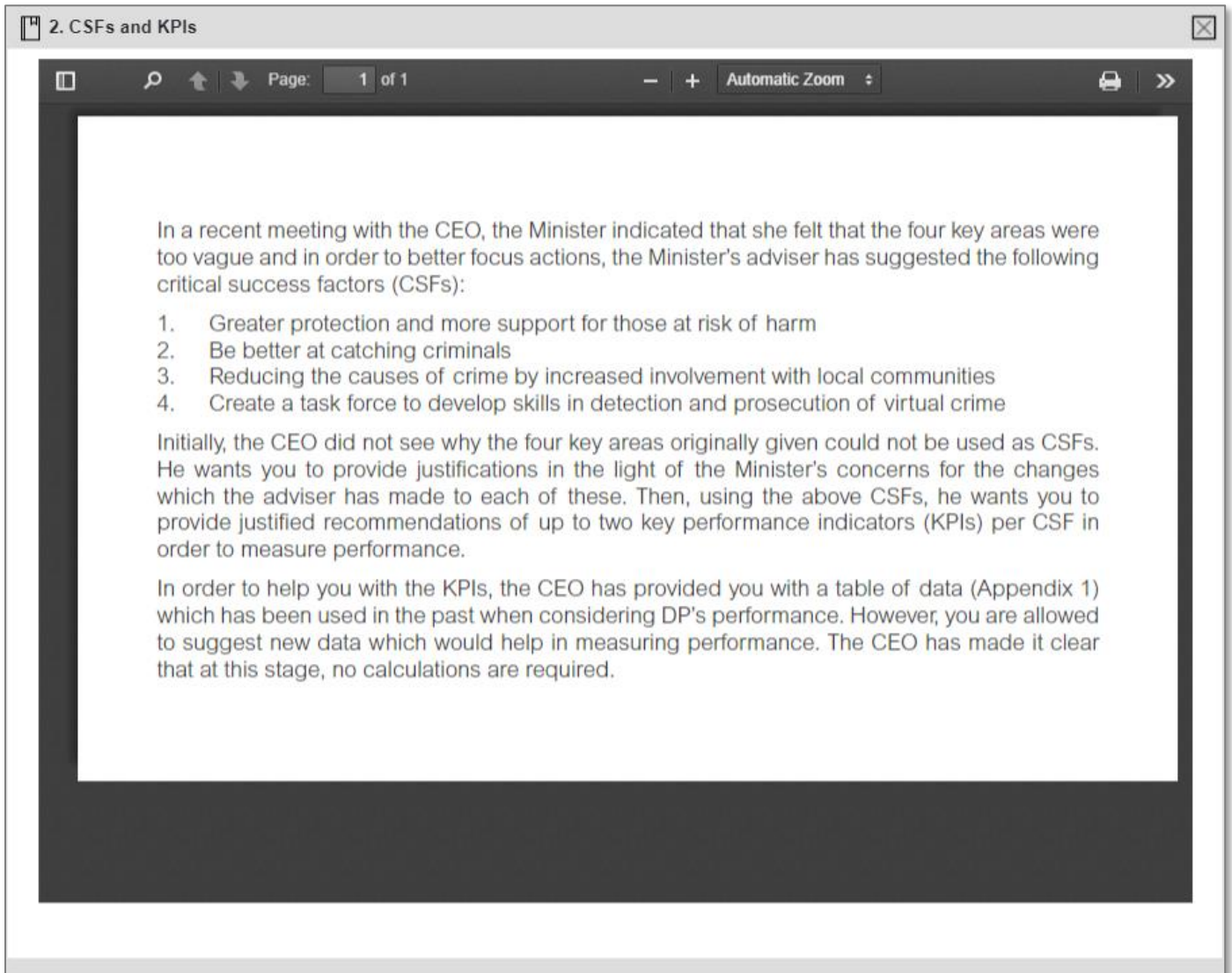
You are a performance management consultant brought in by the chief executive officer (CEO) of the Department for Internal Affairs (DIA) for the country of Deeland. The department handles, among other areas, the policing of Deeland. The CEO is a government employee reporting to the Minister for Internal Affairs. The Minister for Internal Affairs is an elected politician appointed by the leader of the Deeland government.

The government of Deeland has recently changed and the new Minister for Internal Affairs has instructed the CEO of the DIA to improve the performance of the Deeland Police (DP) by implementing the Minister's new mission statement for DP: 'to protect the community and prevent crime while providing a value for money service.' As part of this implementation, the CEO has identified the following four key areas for action:

1. Protecting and supporting those at risk of harm
2. Ensuring criminals are caught and brought before the courts
3. Achieving long-term sustainable solutions to the causes of crime
4. Addressing new forms of crime arising in the virtual world

The new Minister wants general improvement in the first three of these areas, as her political campaign was based around criticism of the previous government's perceived failure on these points. It is widely agreed that in the second area, the major concern is the catching of criminals since, historically, there is a high probability that once caught they are brought before the courts. The third area is being addressed through increased involvement with local communities in order to identify and address the causes of crime. The fourth area of crime in the virtual world (the use of computers to facilitate crime) was hardly addressed under the previous government and the Minister wants to see the creation of a task force which will develop skills in detection and prosecution of virtual crime.

Exhibit 2



The image shows a screenshot of a PDF document viewer. The window title is "2. CSFs and KPIs". The viewer interface includes a search icon, navigation arrows, "Page: 1 of 1", zoom controls, and a print icon. The document content is as follows:

In a recent meeting with the CEO, the Minister indicated that she felt that the four key areas were too vague and in order to better focus actions, the Minister's adviser has suggested the following critical success factors (CSFs):

1. Greater protection and more support for those at risk of harm
2. Be better at catching criminals
3. Reducing the causes of crime by increased involvement with local communities
4. Create a task force to develop skills in detection and prosecution of virtual crime

Initially, the CEO did not see why the four key areas originally given could not be used as CSFs. He wants you to provide justifications in the light of the Minister's concerns for the changes which the adviser has made to each of these. Then, using the above CSFs, he wants you to provide justified recommendations of up to two key performance indicators (KPIs) per CSF in order to measure performance.

In order to help you with the KPIs, the CEO has provided you with a table of data (Appendix 1) which has been used in the past when considering DP's performance. However, you are allowed to suggest new data which would help in measuring performance. The CEO has made it clear that at this stage, no calculations are required.

Exhibit 3

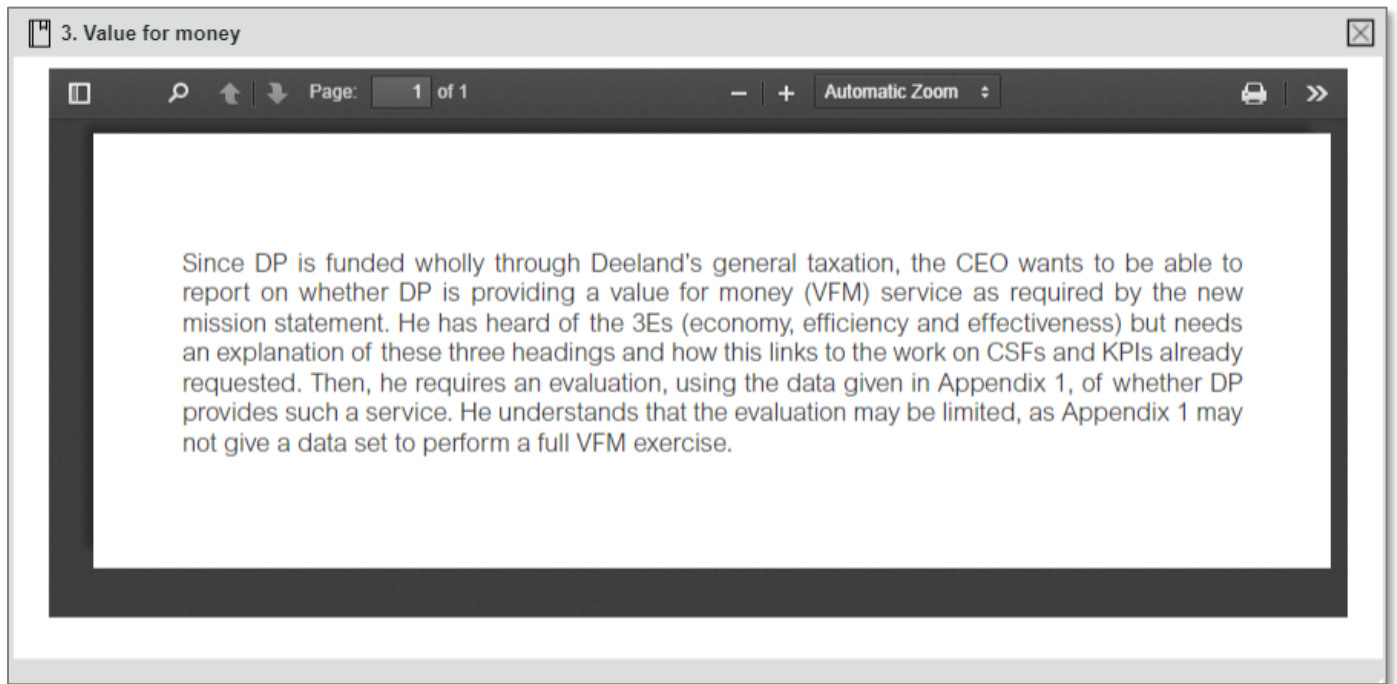


Exhibit 4

4. League tables

Page: 1 of 1 Automatic Zoom

The Minister is interested in benchmarking as this was often done during her days in business. As a result, she joined an international initiative for creating a league table of fire service data by sharing information with other nearby countries. The CEO believes that the Minister will want to introduce this idea for DP and so wants an evaluation (including recommendation) of the use of an international police force performance league table and its link to targets for DP. The CEO is especially concerned about the police officers' reaction to this new idea as they have a powerful union, which has widespread public support. Therefore, he also needs you to explain how the use of league tables and targets might affect police officers' behaviour.

Exhibit 5

5. Appendix 1

Edit Format

100%

	A	B	C	D	E
1	Deeland Police data for each year ending 30 June				
2					
3			20X5	20X4	20X3
4					
5	Population ('000s)		11,880	11,761	11,644
6					
7	Number of police officers		37,930	38,005	38,400
8	Number of administrative staff		12,320	12,197	12,075
9	Number of crimes reported in the year		541,735	530,900	520,282
10	Number of violent crimes reported in the year		108,347	106,180	104,056
11	Number of crimes solved in the year		297,954	300,934	303,943
12	Number of complaints		7,624	7,512	7,483
13	Response to an incident within the allocated time limit		84%	86%	87%
14					
15	Cost of police force for the year (\$m)		2,248	2,226	2,203
16	Staff costs (all staff including police officers) (\$m)		2,026	2,103	2,141
17					
18					

Section B – summary screen

Section B

This section of the exam contains **two questions**.

Each question is worth **25 marks** and is compulsory.

This exam section is worth **50 marks** in total.

Important:

You must:

- Indicate which requirement each of your responses relate to so that this is clear for markers.
- Show all notes/workings that you want the marker to see within your responses. Remember, any notes/workings made on the Scratch Pad or on your workings paper will not be marked.

Select **Next** to continue.

Section B – question 1

Advanced Performance Management (APM) Specimen – from September 2022 onwards 2 of 3

Symbol Highlight T Strikethrough Calculator Scratch Pad Close All Flag for Review

Exhibits

- 1. Company information
- 2. Purchasing and production
- 3. JIT and costs of quality
- 4. Appendix 1

Requirements

- ⦿ Requirements (25 marks)

Response Options

- 📄 Word Processor
- 📊 Spreadsheet

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question:

1. Company information – the industry sector and challenges faced by a key customer of the company: Coruisk.
2. Purchasing and production – information related to the current purchasing policy and current production methods used by Coruisk.
3. JIT and costs of quality – information related to a request by Erich to move to a just-in-time (JIT) purchasing system and a costs of quality exercise requested by Coruisk's CEO.
4. Appendix 1 – Coruisk's cost of quality report.

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

Help/Formulae Sheet← Previous ⋮ Navigator Next →

Requirements

Requirements (25 marks)

It is now 1 September 20X5.

Respond to the CEO's request for work on the following areas:

(a) the introduction of a just-in-time (JIT) system; and (13 marks)

(b) costs of quality changes. (7 marks)

Professional marks will be awarded for the demonstration of skill in analysis and evaluation, scepticism and commercial acumen in your answer. (5 marks)

Exhibit 1

1. Company information

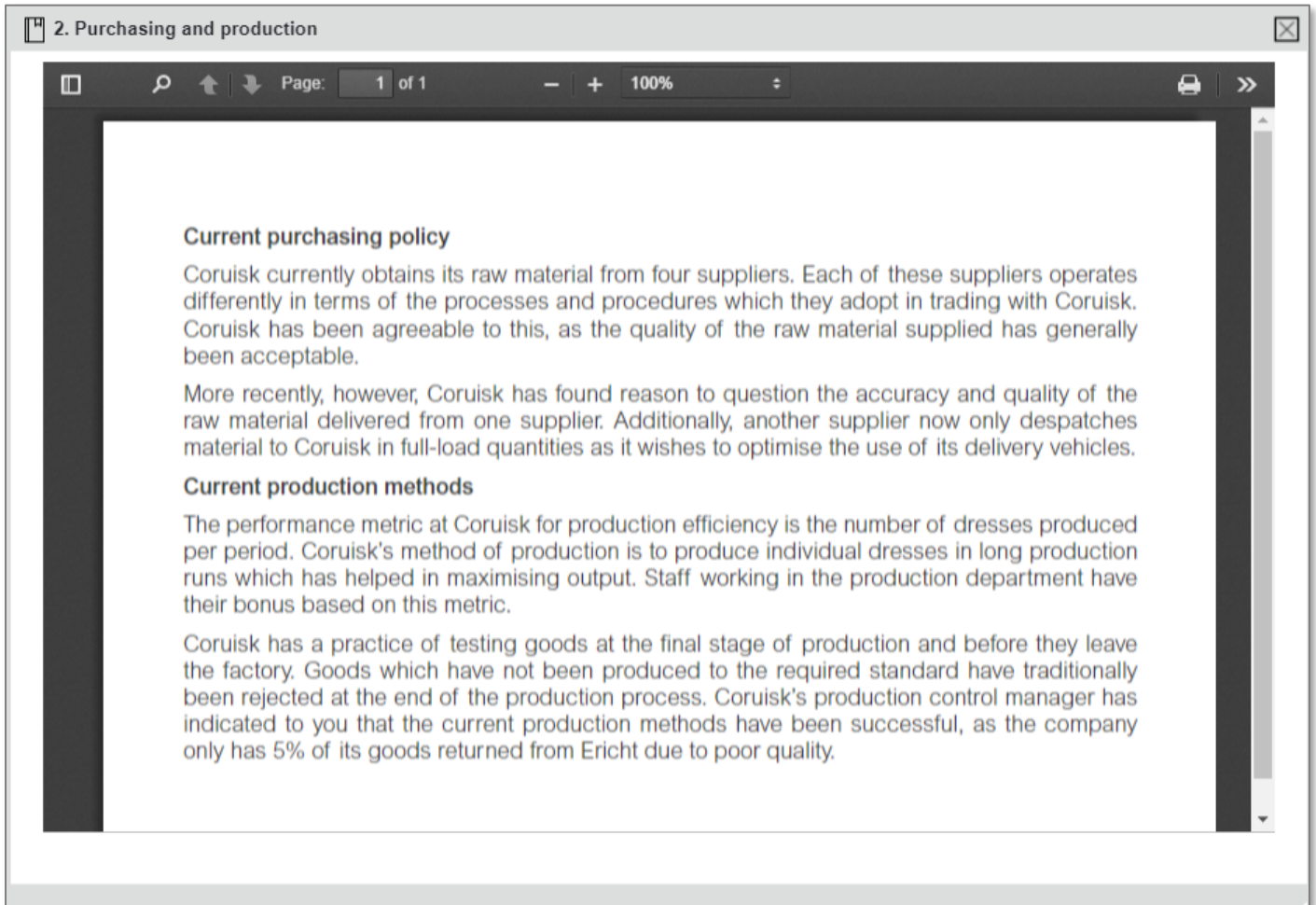
Page: 1 of 1 Automatic Zoom

Coruisk is a clothing manufacturer in Teeland which produces a range of dresses which it sells to Ericht. The range of dresses are the only products which Coruisk produces and Ericht is its only customer.

Ericht is a well-known retailer in Teeland. Ericht has recently been affected by changes in consumer purchasing preferences to buying clothes online and, as a result, is keen to reduce its inventory holding as a way of reducing its costs. Ericht is also finding that it has an excess of goods which it has to discount as consumer tastes appear to change more quickly than in the past.

The chief executive officer (CEO) of Coruisk has given you some tasks.

Exhibit 2



The image shows a PDF viewer window with the title "2. Purchasing and production". The viewer interface includes a search icon, navigation arrows, "Page: 1 of 1", zoom controls set to "100%", and a print icon. The document content is as follows:

Current purchasing policy

Coruisk currently obtains its raw material from four suppliers. Each of these suppliers operates differently in terms of the processes and procedures which they adopt in trading with Coruisk. Coruisk has been agreeable to this, as the quality of the raw material supplied has generally been acceptable.

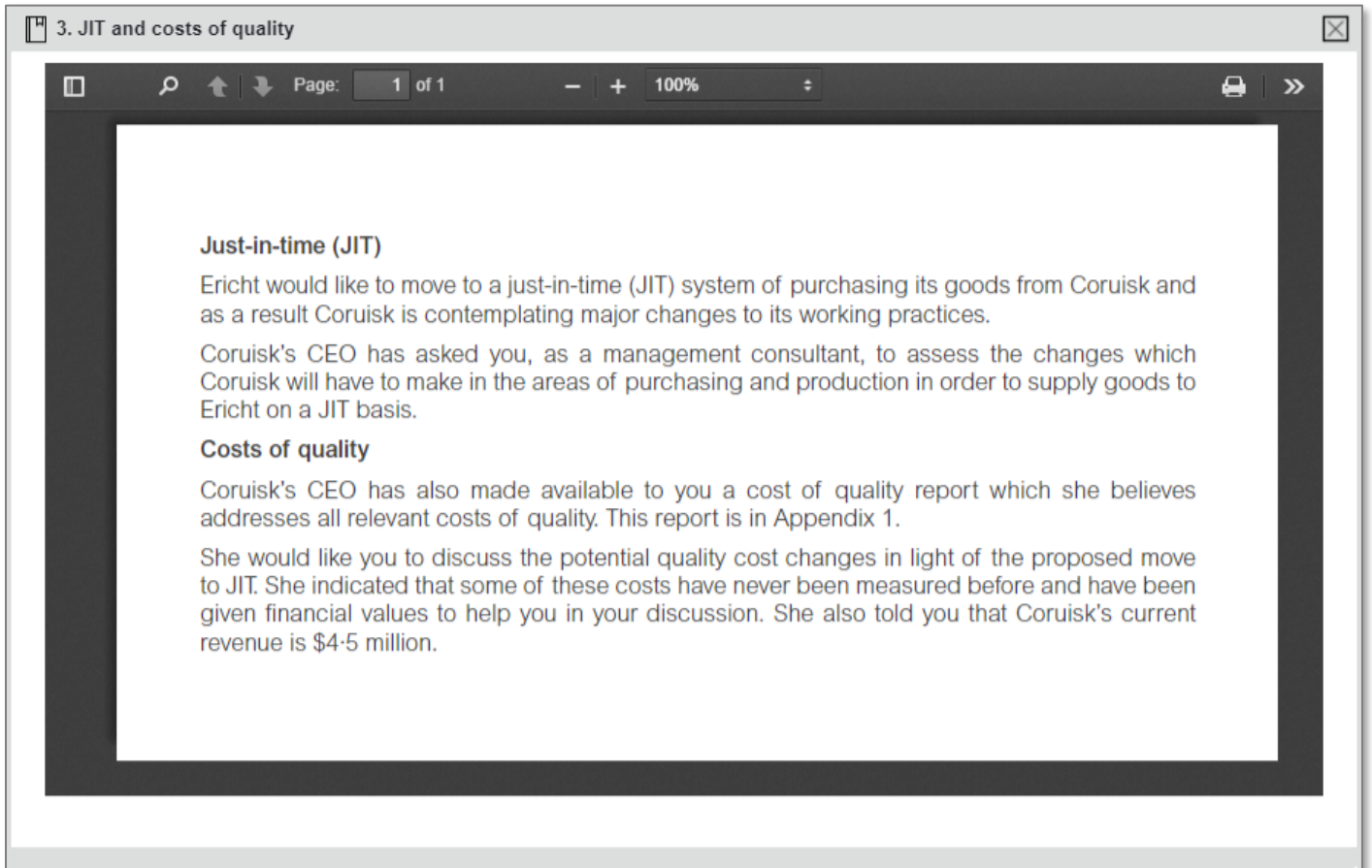
More recently, however, Coruisk has found reason to question the accuracy and quality of the raw material delivered from one supplier. Additionally, another supplier now only despatches material to Coruisk in full-load quantities as it wishes to optimise the use of its delivery vehicles.

Current production methods

The performance metric at Coruisk for production efficiency is the number of dresses produced per period. Coruisk's method of production is to produce individual dresses in long production runs which has helped in maximising output. Staff working in the production department have their bonus based on this metric.

Coruisk has a practice of testing goods at the final stage of production and before they leave the factory. Goods which have not been produced to the required standard have traditionally been rejected at the end of the production process. Coruisk's production control manager has indicated to you that the current production methods have been successful, as the company only has 5% of its goods returned from Ericht due to poor quality.

Exhibit 3



The image shows a screenshot of a PDF document viewer. The title bar at the top reads "3. JIT and costs of quality". The viewer interface includes a search icon, navigation arrows, a page indicator "Page: 1 of 1", zoom controls set to "100%", and a print icon. The main content area contains the following text:

Just-in-time (JIT)

Ericht would like to move to a just-in-time (JIT) system of purchasing its goods from Coruisk and as a result Coruisk is contemplating major changes to its working practices.

Coruisk's CEO has asked you, as a management consultant, to assess the changes which Coruisk will have to make in the areas of purchasing and production in order to supply goods to Ericht on a JIT basis.

Costs of quality

Coruisk's CEO has also made available to you a cost of quality report which she believes addresses all relevant costs of quality. This report is in Appendix 1.

She would like you to discuss the potential quality cost changes in light of the proposed move to JIT. She indicated that some of these costs have never been measured before and have been given financial values to help you in your discussion. She also told you that Coruisk's current revenue is \$4.5 million.

Exhibit 4

4. Appendix 1

Edit Format

100%

11 B I U A

	A	B	C	D
1	Cost of quality report			
2		\$'000	\$'000	% of revenue (\$4.5m)
3	Costs of conformance:			
4	Prevention costs:			
5	Preventative maintenance	8		
6	Total		8	0.18%
7				
8	Appraisal costs:			
9	Quality control supervisor	35		
10	Quality audit	2		
11	Total		37	0.82%
12				
13	Costs of non-conformance:			
14	Internal failure costs:			
15	Rework cost	72		
16	Machine downtime	38		
17	Scrap	58		
18	Total		168	3.73%
19				
20	External failure costs:			
21	Cost of complaints from Ericht	135		
22	Foregone contribution from lost sales*	85		
23	Product recalls and cost of goods returned	180		
24	Total		400	8.89%
25				
26	Overall total		613	13.62%
27				
28	*the foregone contribution from lost sales is an estimate of potential sales lost to Ericht due to problems related to production and delivery experienced by Coruisk.			

Section B – question 2

Advanced Performance Management (APM) Specimen – from September 2022 onwards 3 of 3

Symbol Highlight A Strikethrough Calculator Scratch Pad Close All Flag for Review

Exhibits

- 1. Company information
- 2. Value based management (VBM)
- 3. Measuring value
- 4. Appendix 1
- 5. Appendix 2

Requirements

- Requirements (25 marks)

Response Options

- A Word Processor
- Spreadsheet

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question:

1. Company information – the background, current performance measures and changes in the market of the company: Totaig.
2. Value based management (VBM) – advice from a consultant about the use of VBM at Totaig and a request for work by the directors on this area.
3. Measuring value – details of work required on the introduction of EVA™ as a performance indicator to measure value.
4. Appendix 1 – the consultant’s presentation slide showing the four steps involved in the implementation of VBM.
5. Appendix 2 – financial information supplied in order to establish if Totaig has generated value.

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

Help/Formulae Sheet ← Previous A Navigator Next →

Requirements

Requirements (25 marks)

It is now 1 September 20X5.

Respond to the directors' request for work on the following areas:

(a) the implementation of Step 2 of VBM; and (15 marks)

(b) measurement of value. (5 marks)

Professional marks will be awarded for the demonstration of skill in analysis and evaluation and commercial acumen in your answer. (5 marks)

Exhibit 1

1. Company information

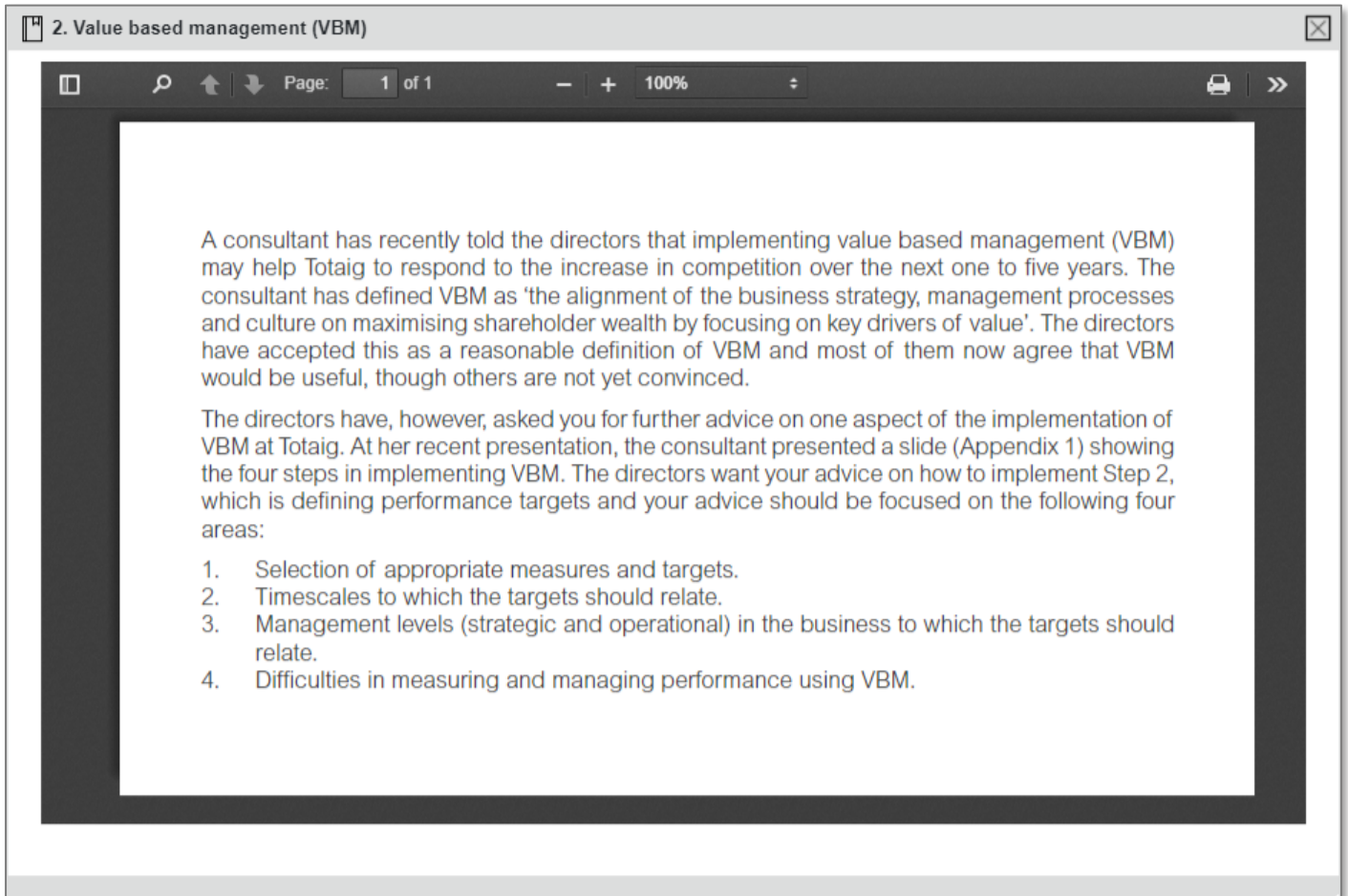
Page: 1 of 1 100%

Totaig manufactures high quality and innovative small electrical appliances such as hairdryers and vacuum cleaners. All of the board of directors, who are the strategic decision makers, have always worked in the business and are members of the Totaig family. Most of the operational managers joined as factory workers when the business started and have taken on more responsibilities as the business has grown.

Totaig has basic and outdated IT systems for a business of its complexity and has always used traditional financial performance measures such as return on investment (ROI) and operating profit margin.

Totaig has historically had few competitors and the directors have focused on improving financial results from one year to the next, with little long-term planning. A number of overseas competitors have, however, recently entered Totaig's market. It is estimated that, within one year, these competitors will be able to produce at a similar unit cost to Totaig and that within three to five years, the quality of the competitors' products will be comparable to the current quality of Totaig's products. Totaig may have to invest heavily in product development and make acquisitions in the future in order to compete effectively.

Exhibit 2



2. Value based management (VBM)

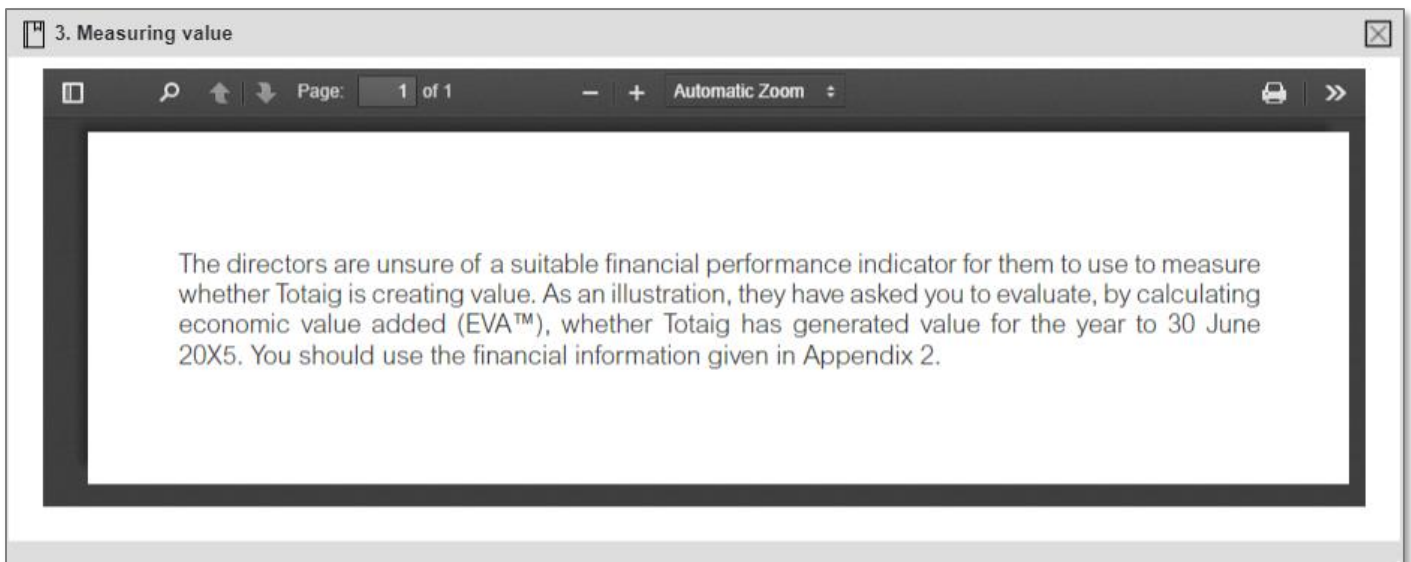
Page: 1 of 1 100%

A consultant has recently told the directors that implementing value based management (VBM) may help Totaig to respond to the increase in competition over the next one to five years. The consultant has defined VBM as 'the alignment of the business strategy, management processes and culture on maximising shareholder wealth by focusing on key drivers of value'. The directors have accepted this as a reasonable definition of VBM and most of them now agree that VBM would be useful, though others are not yet convinced.

The directors have, however, asked you for further advice on one aspect of the implementation of VBM at Totaig. At her recent presentation, the consultant presented a slide (Appendix 1) showing the four steps in implementing VBM. The directors want your advice on how to implement Step 2, which is defining performance targets and your advice should be focused on the following four areas:

1. Selection of appropriate measures and targets.
2. Timescales to which the targets should relate.
3. Management levels (strategic and operational) in the business to which the targets should relate.
4. Difficulties in measuring and managing performance using VBM.

Exhibit 3



3. Measuring value

Page: 1 of 1 Automatic Zoom

The directors are unsure of a suitable financial performance indicator for them to use to measure whether Totaig is creating value. As an illustration, they have asked you to evaluate, by calculating economic value added (EVA™), whether Totaig has generated value for the year to 30 June 20X5. You should use the financial information given in Appendix 2.

Exhibit 4

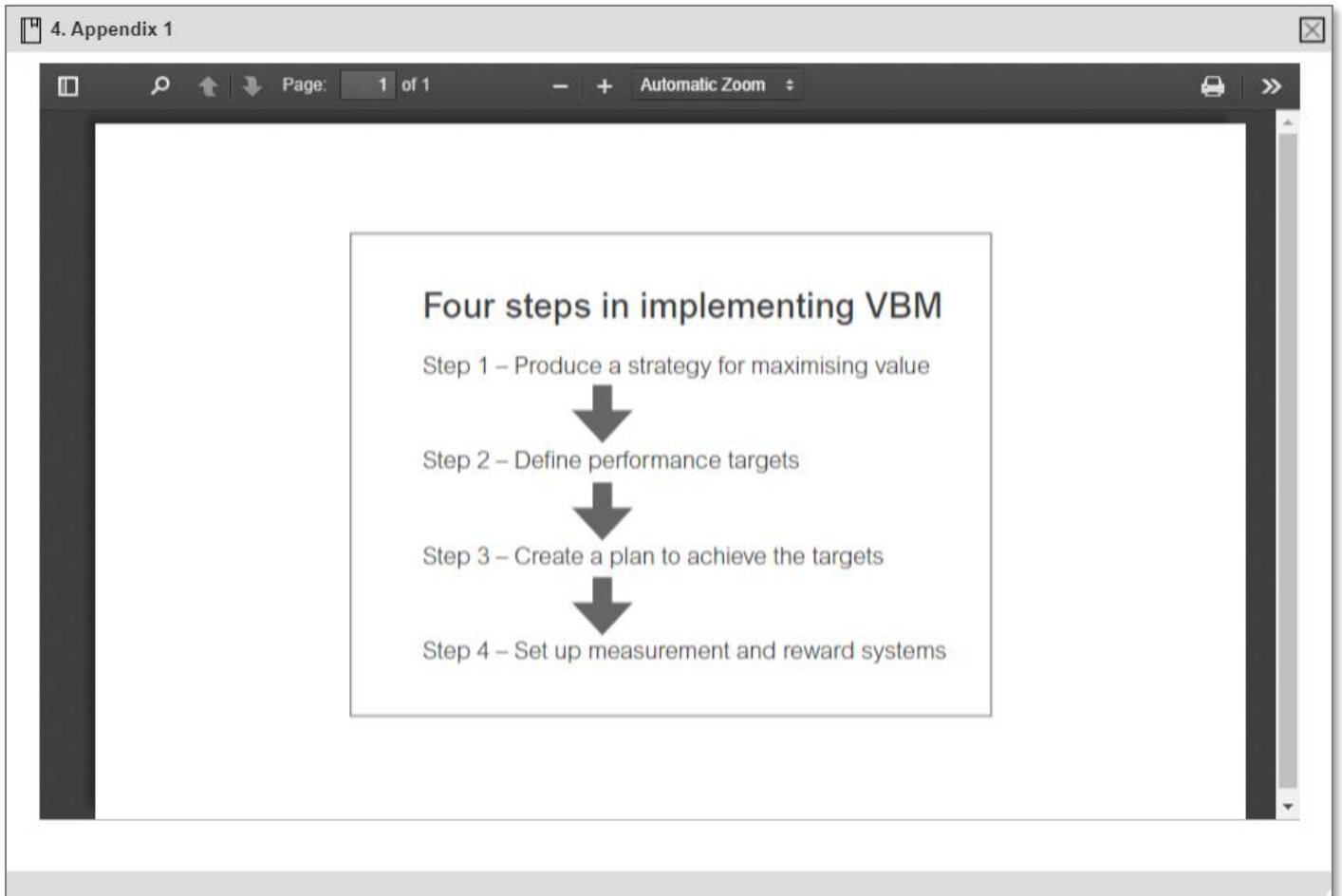


Exhibit 5

5. Appendix 2

Edit Format

100%

11 B I U A

	A	B	C	D	E	F	G	H	I	J
1	Income statement for the year to 30 June 20X5									
2										
3		\$'000								
4										
5	Operating profit	10,000								
6	Interest expense	(1,500)								
7	Profit before tax	8,500								
8	Tax at 22%	(1,870)								
9	Profit after tax	6,630								
10										
11	Notes:									
12	1. During the year \$450,000 of advertising cost that will generate sales in future periods was expensed to the income statement.									
13	2. The allowance for doubtful debts at the end of the period was \$300,000, a reduction of \$200,000 from the beginning of the period.									
14	3. The capital employed at the beginning of the period was \$88,944,000.									
15	4. Totaig's after-tax weighted average cost of capital (WACC) is currently 9%. The company is financed by a mixture of equity and fixed and floating rate loans.									

Answers

1 To: The CEO, Department of Internal Affairs (DIA)
From: An Accountant
Date: 1 September 20X5
Subject: Performance measurement and management at Deeland Police (DP)

This report recommends and justifies critical success factors (CSFs) and key performance indicators (KPIs) for DP based on the four critical areas of performance. DP is then evaluated on the value for money (VFM) provision of its service. Finally, the use of a league table of police performance and the setting of targets for DP is assessed, with comment on the employee reaction to such a management approach.

(i) Critical success factors (CSFs) and key performance indicators (KPIs)

The CSFs must follow from the four areas which are addressing the overall mission. The four key areas to consider are:

1. Protecting and supporting those at risk of harm
2. Ensuring criminals are caught and brought before the courts
3. Achieving long-term sustainable solutions to the causes of crime
4. Addressing new forms of crime arising in the virtual world

The first three areas are on-going in the activities of DP and the Minister wants improvement in each. The adviser's suggested CSFs all appear to be reasonable improvements to manage the Minister's concerns about the vagueness of the key areas as follows:

1. Greater protection and more support for those at harm (this is a straight-forward improvement to the existing position in this area).
2. Be better at catching criminals (bringing them before the courts does not appear to be critical as it seems to automatically follow).
3. Reducing the causes of crime by increased involvement with local communities (improvement using the mechanism suggested).

The fourth area is relatively new, so it will be more in the nature of a separate project to:

4. Create a task force to develop skills in detection and prosecution of virtual crime (as desired by the Minister).

The KPIs for the four CSF areas

Area 1

The CSF breaks into two parts – protecting and supporting. There should be a KPI measuring the change in each of these areas:

- Percentage change year on year of the number of victims of violent crimes, once they are identified as at risk (a register of 'at risk' people would need to be created).
- Percentage change of staff hours spent with each victim on average in support activities.

Neither of these KPIs can currently be measured as the data is not collected. The first point could be indirectly addressed by measuring the number of victims of violent crimes, which should see a fall if those at risk are better protected.

Area 2

This CSF is looking at what is often referred to as the clear-up rate, which is the percentage of crimes where the criminal is caught. The data given allows this to be measured through

- the percentage change in the percentage of crimes solved (although care must be taken that 'solved' is not the same as 'criminal caught' as there may be cases where the police know the criminal, but they escape capture).

The second part of bringing the criminal before the courts once caught does not appear to be a critical area needing measurement since this appears to be a low risk possibility. The critical area might be better stated as 'Ensuring crimes are solved and criminals are brought before the courts' since the second part would then be an appropriate area to measure.

Area 3

From the data in Appendix 1, the KPI could be:

- the percentage change in the total number of crimes in Deeland in the year.

The effect of reducing the causes of crime would be to create a long-term trend downwards in this measure. It may be better to use a three-year moving average of the change as a result. However, there may be many factors which cause such changes including the number of police officers and so the underlying causes of crime may not be accurately measured. The suggested KPI does not capture whether the changes are sustainable in the long term, which will be difficult to do.

Area 4

The KPIs for the fourth area require examination of the number and qualifications of those working on the task force on virtual crime. The data in Appendix 1 is not sufficient to measure this.

KPIs could include:

- percentage of roles in the task force filled (this requires that there is a plan for the organisation of a suitable task force, which may be complicated as this is a new area where knowledge of how many staff and what qualifications they should have may not be present).
- percentage of virtual crimes reported which are solved (shows the effectiveness of the task force).

(ii) Value for money (VFM)

The standard criteria for analysis of the value for money of a service are:

- Economy – the optimisation of the resources which the organisation has; ensuring the appropriate quality of input resources are obtained at the lowest cost;
- Efficiency – the optimisation of the process by which inputs are turned into outputs;
- Effectiveness – how the outputs of the organisation meet its goals.

The 3Es above link to the CSFs and KPIs in the area of effectiveness. The KPIs measure the achievement of the goals of DP and all relate to outcomes rather than processes or inputs in this case.

In order to judge VFM, comparison can be made internally to the historic performance of DP, but it should also be benchmarked against external organisations. The need for external data is also reflected in the desire to benchmark in league tables although no data is given for this here and so the VFM can only be judged against previous years' data.

Considering the situation at DP specifically

Economy could be measured by looking at the cost of buying inputs; the principal input is staff (90.1% of total costs) and so the cost per employee (\$40,318) is relevant. This represents a 3.8% reduction on the previous year although it should be noted that the mix of staff is changing with more administrative staff replacing police officers who may be more expensive as they are more qualified. It would be useful to obtain the data on the average police officer salary as they make up 75.5% of the total staff and they are critical to the achievement of outcomes.

As noted above, in order to judge whether this is good or bad, the Department should also compare this to external figures such as the national average wage and, also, the average salary of staff in other police forces in similar countries.

Efficiency can be measured in a number of different ways.

	20X5	20X4	20X3
Solved crimes per police officer	7.855	7.918	7.915
Solved crimes per employee (police officers and admin staff)	5.929	5.994	6.022
Police officers per 1,000 population	3.19	3.23	3.30

The trend in the number of police officers is downward which would suggest improvement. However, the more important outcome is not the resources poured in but the crime results and these show that by decreasing the number of police officers, the number of crimes which each is solving is falling (down 0.8% from 20X3). Performance in this area is therefore poor.

Effectiveness must be measured against DP's goals in its four areas:

1. Protection and support of those at risk – the percentage of violent crime remains flat over the three years of data at 20% of the total number of crimes reported. This suggests that protection remains broadly unchanged. As noted above, there is no measure of support provided.
2. Solving crimes – the clear-up rate has fallen from 56.7% to 55.0%. This probably reflects the change in staff mix as police officer numbers have fallen.
3. Causes of crime – the trend is clearly upwards with an increase of 2% each year over the last two years which may again reflect the falling numbers of police officers in DP.
4. Virtual crime – as noted above, it is not possible to measure the achievement of the creation of the task force from the data provided.

(iii) League tables

The use of league tables effectively benchmarks performance and can have a positive effect on behaviour. The sharing of data on performance can indicate areas of best practice and so offers the possibility of improving performance by copying that best practice. Additionally, the use of league tables gives, by the rank in the table, a clear, immediate answer to questions of relative performance.

However, the use of league tables only measures relative performance. The best force in the table could still be producing an unacceptable performance in absolute terms. The different forces in different countries will face different external environments. Each force will have to react to the economic situation in that country and may allocate resources differently according to the priorities of the government of that country. So, it will be difficult to get a single measure, such as the rank in the league table, to balance these competing factors.

This leads on to another area which will prove difficult, which is how to rank the different forces. Usually, there is a scoring system giving points across different areas for each force's performance. The selection of the areas and the weighting given to

them within the rank score will affect the position of the different forces. In an example of 'what gets measured, gets done', it may be that the DP management will change their priorities from those given by the DIA to those measured in the rank score and so undermine the alignment of their behaviour with the given mission of DP. Therefore, to be of value to the Minister, the calculation of the rank must encompass the key variables which will drive DP's desired performance.

Therefore, there is a link between league tables and employee behaviour which comes from the setting of targets based on the league table rank.

The impact on the employees includes whether they feel a sense of accountability for the score. If the police officers do not feel that they can affect the rank, then they may ignore it or actively undermine it in public through their union's public statements. This will present the government with difficulty as the police are considered the experts in this area of public policy and their criticism will carry weight with the electorate.

Specifically, the police officers may be demotivated by the league tables if they feel:

- (a) that the league table rank does not reflect the valuable work which they do (for example, in creating the new virtual crime task force); or
- (b) that the rank is driven by factors outside of their control. (For example, the budget for the force may be cut, as appears to be happening with DP, or there may be a link between the number of crimes reported and the economic conditions in Deeland which they do not have power to affect).

- 2 (a) Just-in-time (JIT) is defined as a system which has the objective of producing or procuring products as they are required and not for inventory purposes. Coruisk is being asked to produce to JIT principles, the basis of which is where production is driven by demand for the finished product. Each part of the production process is therefore determined only by what is required for the next stage of production.

Purchasing

Coruisk has too many suppliers at present. Adhering to JIT production principles involves reducing suppliers to a minimum and establishing strong relationships with them, based on flexibility and understanding of each other's needs. Coruisk's four main suppliers are too many to develop this type of close relationship with, especially since these suppliers operate to different working practices. The effect of this, from a JIT production perspective, would be that Coruisk would require to undertake discussions with each supplier about the fundamental changes which would be required for the supply of goods in a JIT production environment. Coruisk would not have the time to do this with all four suppliers nor would the supply of goods from four companies be desirable. Coruisk should choose two of the companies it feels it has the strongest relationship with and initiate discussions with them around its needs when producing to JIT principles.

When producing to JIT principles, suppliers will effectively be an extension of Coruisk's own business. As such, Coruisk must be aware of and must understand how changes in suppliers' operations will affect Coruisk's own operations. It is clear that Coruisk does not currently have this level of relationship. The supplier who is seeking to optimise the cost of its delivery vehicles, for example, is undertaking practices which are very much opposed to the type of practices which Coruisk will need when it is producing to JIT principles. JIT only produces goods when needed by the next stage in the process (the 'kanban' principle) and Coruisk would need its supplier to understand this and be willing to supply it with goods accordingly. This would clearly be impossible for a supplying company which is insistent on supplying full-load quantities only.

Coruisk must also ensure that the raw material it receives is defect free, unlike the goods which are received currently from one supplier. Having the wrong quantity of material or material which is sub-standard, is unacceptable if Coruisk is producing to JIT principles as such problems will mean an inevitable delay in supplying goods to Ericht. Coruisk will therefore need to spend time in defining and agreeing requirements with suppliers to clarify requirements in terms of both quality and quantity and may need to also develop improvement teams with their suppliers to ensure that the raw material it receives is reliable.

Coruisk will most likely need to undertake official supplier assessments as part of this as such assessments and on-going reviews are a vital part of ensuring the quality of the raw material in a JIT production system.

Production

The manner in which Coruisk produces its goods will need to change significantly. Efficiency can no longer be measured by volume of output. Ericht will seek supply of goods as and when required in order to avoid obsolete inventory and Coruisk must adapt to this. The concept of producing as much as possible is one which Coruisk may struggle to abolish. It is clearly embedded in the culture of the organisation with its importance confirmed by the awarding of a bonus based on the quantity of goods produced. Presumably this bonus has been awarded without taking account of any goods which have been rejected and it is possible that the current system is encouraging production to be undertaken quickly with rejected goods seen as an acceptable part of the production process.

Producing to JIT principles would demand a fundamental rethink at Coruisk in terms of the way production runs are determined. Of most significance, initially, is that such runs would be shorter as all parts of the production process should match the rate at which Ericht is demanding the final product. For example, Coruisk can no longer focus on producing large runs of one dress. Necessary changes here may involve the development of machine cells. Such cells are composed of groups of team members to facilitate operations by eliminating setup and unneeded costs between operations. Cells might be designed for a specific process or part of a product. In Coruisk's case, this may mean workers being grouped together by the dress they are producing at that time rather than as part of a long production run. Enhancing worker flexibility and developing their skill set in several

areas of the operation may be the best way to react to this new environment where demand is much more unpredictable. This may also involve changing the layout of the factory to try to ensure production is as flexible as possible.

Coruisk cannot supply faulty goods to Ericht and the previous belief that a 5% rejection rate was acceptable practice must be replaced by an understanding of the zero defects philosophy. This will require more fundamental change as quality of the finished good will need to be assured throughout the production process and not simply inspected at the end. This will most likely involve an initial discussion with Ericht as to the quality level it is seeking and, potentially, a redesign of the current processes and systems to which Coruisk is operating. For example, prevention and appraisal costs would be expected to increase as Coruisk would have to establish both goods inwards testing procedures and testing procedures for work in progress. There would also be a need for Coruisk to develop a culture where workers are flexible in terms of their capabilities and trained much more in identifying defective products (and ensuring they do not progress further on the production line) than in ensuring the maximum quantity of output is produced.

- (b) The results of the cost of quality report are representative of a company which undertakes quality control as opposed to quality assurance in that the majority of the costs relate to failure, either of an internal or external nature. Additionally, since the costs have been amassed for the first time for this task, it is possible that they are inaccurate and probably understated as some costs are likely to have been omitted.

Costs of conformance

Coruisk will need to invest more in quality audits and, possibly, in testing equipment to ensure that the product is being produced to the right standard as it progresses through the production process. Whereas there may still be a requirement for final inspection, it should not be someone's full-time occupation and the supervisor may be more meaningfully deployed elsewhere for at least part of his/her role. These practices should reduce both the internal and external failure costs, particularly those of scrap and rework, which both appear very high currently. Machine downtime is perhaps due to the very little amount currently spent on preventative maintenance and the cost of internal failure should also fall with enhanced maintenance.

Costs of non-conformance

The significant external failure cost is of most concern. To operate to the JIT principles which Ericht is seeking, Coruisk has to ensure that these costs are as close to zero as possible. It is concerning, for example, that 3% (\$135,000) of the revenue figure is taken up by dealing with complaints from Ericht. Some of this may be due to misunderstandings between the companies which could be rectified by the closer working relationship which JIT production principles demand. Nevertheless, it is clear that Coruisk must ensure that it addresses these costs as it is completely reliant upon Ericht for its business.

The amount of money attributed to product recalls and cost of goods returned (4% of the revenue figure) is concerning as this suggests that defective products have not been detected in Coruisk's current quality control system. This may be due to the bonus system currently in place and the desire to produce quantity, quickly, and not quality. A change to the production process should address this but it could be met with hostility if the workers' bonus is under threat and Coruisk may need to introduce an alternative bonus scheme based on a quality-related metric which specifies, for example, the percentage of defects detected.

The forgone contribution from lost sales is also concerning as it indicates that Ericht has alternative supplier(s). It is possible, given the cost detailed of dealing with complaints from Ericht, that this figure is considerably higher than Coruisk is estimating.

The balance of the costs must change so that the majority of Coruisk's costs are prevention and appraisal (costs of conformance) and not costs of internal/external failure (costs of non-conformance). Coruisk must ensure that it is producing to the standard which Ericht requests at the first time of asking and therefore Coruisk must ensure that it provides more training for staff, more preventative machine maintenance, more supplier appraisal and vetting as mentioned previously and moves to encourage a culture of zero defects with no faulty goods moving forward in the production process.

3 (a) Selection of appropriate measures and targets

Value drivers create long-term value. Totaig is facing competition from overseas businesses, which will soon be able to produce at a similar unit cost to Totaig and produce items of comparable quality. The unit cost of production and product quality would be value drivers for Totaig and targets should be set for these two measures.

Targets should be both financial and non-financial. This will ensure that there is not too much emphasis on financial targets, which tend to be backwards looking, rather than relating to the present value of future cash flows, which is the focus of value-based management (VBM).

The existing targets of return on investment (ROI) and operating margin are backwards looking. They will also discourage managers to make investments, for example, in product development, which might be detrimental to Totaig's long-term performance. This is because investments in new products will reduce both of these measures in the short term.

Having targets related to product quality would ensure that the business does not focus too much on cutting the unit cost of production, for example, by using cheaper, lower quality materials. It appears that to create long-term value, Totaig must be competitive on both unit cost of production and product quality.

Timescales to which the targets should relate

Totaig must set short-term and long-term targets, which should be linked together, for key value drivers. Competitors will be able to produce at a similar unit cost to Totaig within a year. A suitable short-term target would therefore be to reduce unit

production costs within that timescale. As VBM is concerned with long-term value, Totaig should set longer term targets relating to quality in anticipation of the new competitors' ability to improve on this aspect within three to five years.

The possible need to invest heavily in product development and make acquisitions will probably require longer term targets to be set.

Levels in the business to which the targets should relate

Value can be created at all levels in the company and targets should be set according to the different layers of management. Targets relating to unit cost of production and product quality are under the control of operational managers and these would be suitable for this level of management.

Targets relating to possible future acquisitions are under the control of the directors, who are the strategic decision makers.

Difficulties in measuring and managing performance using VBM

Totaig will require good information to implement VBM. It may be difficult to identify value drivers and reporting systems need to be able to provide the information which is required. Currently, IT systems are basic and outdated for a business of its complexity. This may mean that it is difficult to identify value drivers for the setting of targets. The implementation of VBM may require significant investment in IT systems to measure performance against targets and take up management time. The costs of implementing VBM may exceed the benefits.

The operational managers are unlikely to have any experience of VBM since most of them joined Totaig, which itself has never used VBM, when the business first started. They will require training on VBM if they are to understand the targets set. For example, new value-based performance measures, such as EVA™, will be needed, which will be unfamiliar to directors and managers in the business.

Using VBM to manage performance at Totaig will require a culture change amongst all employees, who will need to work towards creating shareholder value. The directors will need to demonstrate commitment to the use of VBM in order to motivate operational managers to accept the change. Currently, some directors at Totaig seem not to be convinced of the usefulness of the approach.

It may be difficult to measure economic depreciation, for example, or to determine whether and for when the anticipated heavy investment in product development will create value. These difficulties will affect the reliability of performance measures for value, such as EVA™, in managing performance.

(b) Calculation of EVA™

	\$'000
Profit after tax	6,630
Advertising costs expenses	450
Decrease in allowance for doubtful debts	(200)
Interest net of tax (1,500 x 78%)	1,170
NOPAT	<u>8,050</u>
	\$'000
Opening capital employed	88,944
Opening allowance for doubtful debt	500
Adjusted opening capital employed	<u>89,444</u>
	\$'000
NOPAT	8,050
After-tax WACC x adjusted capital employed (9% x 89,444)	(8,050)
EVA™	<u>0</u>

As EVA™ is zero, Totaig has neither created nor destroyed value.

1 (i) CSFs and KPIs

4 marks for the justification of the changes to the four CSFs
Up to 4 marks for discussion of KPIs for each area
Maximum 16 marks

(ii) VFM

3 marks for defining each of the 3Es
Up to 3 marks for comments on the link to the CSFs/KPIs
Up to 3 marks each for discussing each heading at DP
Up to 3 marks for supporting calculations
Maximum 14 marks

(iii) League tables

Up to 7 marks for the general evaluation of league tables
Up to 7 marks for the link of tables to targets and police officer reaction
Maximum 10 marks

Professional marks

Communication:

- Report format and structure – use of headings/sub-headings and introduction
- Style, language and clarity – appropriate tone of report response, presentation of calculations, appropriate use of the CBE tools, easy to follow and understand
- Effectiveness of communication – content of the report is relevant and tailored to the question scenario
- Adherence to the CEO's specific request to not provide more than two KPIs

Analysis and evaluation:

- Appropriate use of the data to support discussion and draw conclusions on performance in relation to VFM, including recognition of further analysis which could be carried out to enable a full evaluation of VFM to take place
- Balanced appraisal to make a recommendation on the introduction of league tables, demonstrating reasoned judgement when considering key organisational matters and impacts

Scepticism:

- Demonstration of the ability to probe into why the CSFs were refined
- Recognition that the data provided does not allow some of the CSFs/KPIs to be adequately measured

Commercial acumen:

- Effective use of examples drawn from the scenario information and other practical considerations related to the context to illustrate points being made throughout the report

Maximum 10 marks

Total 50 marks

- 2 (a)** Description of JIT – 1 mark
Changes to purchasing and production – 1 mark per point, up to 13 marks
Maximum 13 marks

- (b)** Quality costs changes – 1 mark per point, up to 7 marks
Maximum 7 marks

Professional marks

Analysis and evaluation:

- Balanced and reasoned assessment of the changes which will be required to both purchasing and production as a result of introducing JIT
- Appropriate use of the data to support discussion on quality cost changes and draw relevant conclusions

Scepticism:

- Demonstration of effective challenge of the assumptions of both the production manager and CEO

Commercial acumen:

- Effective use of examples drawn from the scenario information and other practical considerations related to the context to illustrate points being made

Maximum 5 marks

Total 25 marks

- 3 (a)** 1 mark per point under the four headings:

Selection of measures and targets
Timescales
Management level
Difficulties

Maximum 15 marks

- (b)** Calculation of NOPAT:

Advertising cost – 1 mark
Decrease in allowance – 1 mark
Interest – 1 mark
Calculation of adjusted capital employed – 1 mark
Calculation of EVA™ – 1 mark

Maximum 5 marks

Professional marks

Analysis and evaluation:

- Demonstration of reasoned and balanced judgement to support arguments and communicate advice on the introduction of VBM
- Use of the information provided to perform an evaluation (calculation and conclusion) of EVA™

Commercial acumen:

- Effective use of examples drawn from the scenario information and other practical considerations related to the context to illustrate points being made on the implementation of Step 2 of VBM

Maximum 5 marks

Total 25 marks