Candidate Name	Centre Number	Candidate Number
		2

GCE A level

1605/01

APPLIED BUSINESS

UNIT ABUS 5

A.M. THURSDAY, 13 January 2011

2 hours

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Candidates are required to answer **any two** of the following Sections:

Section A	**Decision-making and the Marketing function. Pages 4 - 10.**
Section B	**Decision-making and the Production function. Pages 12 -17.**
Section C	**Decision-making and the Finance function. Pages 18 - 23.**
Section D	**Other decision-making tools. Pages 24 - 30.**

Time allowed: *Two hours*

All questions in **both** your chosen sections are compulsory.

The Context for all Sections is set in the Introduction.

INFORMATION FOR CANDIDATES

Quality of Written Communication

This will be assessed in questions:

Section A	question 2
Section B	question 2
Section C	question 2
Section D	question 4b

Calculators may be used.

<table>
<thead>
<tr><th rowspan="2">SECTION</th><th colspan="2">For Examiner's use only</th></tr>
<tr><th>Question</th><th>Mark Awarded</th></tr>
</thead>
<tbody>
<tr><td rowspan="7"></td><td>1</td><td></td></tr>
<tr><td>2</td><td></td></tr>
<tr><td>3</td><td></td></tr>
<tr><td>4</td><td></td></tr>
<tr><td>5</td><td></td></tr>
<tr><td>6</td><td></td></tr>
<tr><td>7</td><td></td></tr>
<tr><td rowspan="7"></td><td>1</td><td></td></tr>
<tr><td>2</td><td></td></tr>
<tr><td>3</td><td></td></tr>
<tr><td>4</td><td></td></tr>
<tr><td>5</td><td></td></tr>
<tr><td>6</td><td></td></tr>
<tr><td>7</td><td></td></tr>
<tr><td></td><td>Total</td><td></td></tr>
</tbody>
</table>

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INTRODUCTION

NAT'S LEISURE LTD

Read the following information which applies to **all** sections.

Nat's Leisure Ltd is a caravan business based in the Midlands.

The main business of the organisation is buying and selling various types of caravans. Dave Lynch is one of the staff at Nat's Leisure Ltd.

"Hello. My name's Dave Lynch. I work for Nat's Leisure Ltd. Our company is based in the Midlands, and we work in the holiday and leisure industry.

Our business is buying and selling caravans. We trade in both the touring type of caravan towed by cars, and the large ones that are located permanently on sites and sold as holiday homes.

We don't make any caravans at Nat's Leisure Ltd, but buy them from some of the major UK caravan manufacturers such as ABI, and then sell them to clients. Our clients include both the general public, usually retired people or those with young children, and the owners of holiday-home parks."

Section A

Decision-making and the Marketing function

"At Nat's Leisure Ltd we trade in both touring caravans and large holiday-home caravans. I know that Wes Anderson, our Marketing Director, is planning to start some market research. Wes has asked me to suggest how the market for caravans might be segmented. He has also given me sales figures for both types of caravan, and asked me to identify any trends. I'll take into account the fact that selling caravans is influenced by seasonal factors."

1. Wes has asked Dave to suggest how the market for caravans might be segmented.

What is market segmentation? [2]

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2. Analyse **two** ways in which *Nat's Leisure Ltd* should segment the market in relation to its products and customers. [10]

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Turn over.

3. Assess the benefits of market segmentation to *Nat's Leisure Ltd.* [8]

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4. Wes Anderson, the Marketing Director, has asked Dave to identify any sales trend(s) contained in the table below, which shows the combined sales figures for both types of caravan (tourer and holiday home) sold by *Nat's Leisure Ltd*.

Calculate the moving total and moving average of **four quarters'** sales. Enter the results of your calculations in the unshaded cells in the moving total and moving average columns. [8]

Year / Quarter		All caravans sold	Moving total	Moving average
2008	Q1	42		
	Q2	114		
	Q3	105		
	Q4	63		
2009	Q1	41		
	Q2	111		
	Q3	102		
	Q4	62		
2010	Q1	40		
	Q2	109		
	Q3	99		
	Q4	59		

5. *(a)* Using the information given in Question 4 and your calculations, comment on any trend(s) shown. [2]

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(b) Assess how helpful **this** analysis is to *Nat's Leisure Ltd*. [6]

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6. Dave has taken seasonal variations into account, but not cyclical variations.

(a) What is the difference between a seasonal variation and a cyclical variation? [2]

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(b) Give **two** examples of the causes of cyclical variations in *Nat's Leisure Ltd's* sales. [2]

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Total 40 marks

END OF SECTION A

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Turn over.

Section B

Decision-making and the Production function

"In my work, I visit caravan manufacturers so I can stay in touch with new developments and explain these to our clients. Manufacturers try to improve their models to sell more in what is a competitive market. I also visit a business that converts ordinary transit vans owned by clients into motorhomes, made to the client's wishes, and using a production process different from caravan manufacturers."

Rainbow Conversions is a small business that converts ordinary vans such as a Ford Transit into motorhomes, which clients use to tour the UK. Items such as beds, cookers and fridges are installed, each motorhome being built to the individual design of the client.

Rainbow Conversions uses the job production method to convert a van into a motorhome.

1. Why is the job production method used in **this** situation?   [6]

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2. What are the benefits and drawbacks to *Rainbow Conversions* of using the job production
method? [8]

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3. A number of caravan manufacturers, such as *ABI, Carnaby* and *Cosalt*, are located close to each other in Yorkshire.

Assess the relevance to a caravan manufacturer, such as *ABI*, of being located in an area containing other caravan manufacturers. [6]

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4. A caravan manufacturer near *Nat's Leisure Ltd* values its stock using the Average Cost method. The information in the table below relates to doors for showers that are installed in caravans.

Complete the table below by calculating the value of shower doors issued and the value of shower doors in stock, using the Average Cost method. Enter the results of your calculations in the unshaded cells in the table [8]

Stock record: shower doors

Receipts			Issues			Balance		
Qty	£ unit	£ total	Qty	£ unit	£ total	Qty	£ unit	£ total
						40	35.00	1 400
20	36.20							
			35					
20	36.30							
			25					

5. Many caravan manufacturers use value analysis when designing their caravans.

(a) What is value analysis? [2]

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(b) Outline **two** advantages to a caravan manufacturer from using value analysis in the design process. [4]

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6. New product development is important to caravan manufacturers. Assess the impact that new product development will have on the **buying** and **finance** functions of a caravan manufacturer. [6]

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Total 40 marks

END OF SECTION B

Turn over.

Section C

Decision-making and the Finance function

"At Nat's Leisure Ltd we display caravans and accessories in our two showrooms, where the managers and sales team are based. We have an office where administrative staff handle the business paperwork, with an accounts section calculating our financial figures. There is a café by our showrooms, where we serve food and drinks to encourage visitors to look at the caravans."

1. The café in *Nat's Leisure Ltd* buys and prepares food and drinks for visitors. A standard costing system is used to control the amounts bought and used. The following is a cost card for the materials (ingredients) used to make a batch of plain scones.

Nat's Leisure Ltd: **Standard cost card for plain scones**

5 kg flour:	£2.50	(50p per kg)
0.8 kg butter:	£4.00	(£5 per kg)
3 litres milk:	£1.50	(50p per litre)
300 grams sugar:	£0.30	(£1 per kg)
Standard cost:	**£8.30 per batch**	

Last month, 30 batches of scones were made using the following amounts of materials (ingredients)

Ingredient	Quantity	Cost(£)
Flour	165 kg	90.75
Butter	27 kg	141.75
Milk	99 litres	49.50
Sugar	9.9 kg	10.89
		292.89

Dave has already calculated the materials total cost and price variances as follows.

Materials **total** cost variance:

- Actual £292.89 – standard £249 (30 x £8.30) = £43.89 adverse

Materials **price** variances for each ingredient and the total price variance:

- Flour 165 kg x (55 – 50) 5p   = £8.25 adverse
- Butter 27 kg x (5.25 – 5) 25p   = £6.75 adverse
- Milk   = no variance
- Sugar 9.9 kg x (1.1 – 1) 10p   = 99p adverse
- Total price variance   = £15.99 adverse

Calculate the materials **usage** variances for each ingredient and the total usage variance.   [10]

                                                                            Turn over.

2. Using the information provided in Question 1 and your responses, analyse the price and usage variances and suggest what *Nat's Leisure Ltd* could do in this situation. Justify the suggestions you make. [10]

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3. Give **one** example of an item likely to appear in *Nat's Leisure Ltd's* Balance Sheets for each
heading below. [4]

- Non-current assets (Fixed assets).

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- Non-current liabilities (Long term liabilities).

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- Current liabilities

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- Equity

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Turn over.

4. *Nat's Leisure Ltd's* financial year runs from January to December. A summary of the most recent Income Statement (Profit and Loss Account) is shown below.

<table>
<tr><th colspan="5">Nat's Leisure Ltd
Income Statement for year ended 31 December 2010</th></tr>
<tr><td></td><th colspan="2">2010</th><th colspan="2">2009</th></tr>
<tr><td></td><th>£000</th><th>£000</th><th>£000</th><th>£000</th></tr>
<tr><td>Revenue (Sales)</td><td></td><td>11 450</td><td></td><td>10 950</td></tr>
<tr><td>Opening inventory (stock)</td><td>905</td><td></td><td>720</td><td></td></tr>
<tr><td>Purchases</td><td>6 726</td><td></td><td>6 755</td><td></td></tr>
<tr><td>Closing inventory (stock)</td><td>(990)</td><td></td><td>(905)</td><td></td></tr>
<tr><td>Cost of sales</td><td></td><td>(6 641)</td><td></td><td>(6 570)</td></tr>
<tr><td>Gross profit</td><td></td><td>4 809</td><td></td><td>4 380</td></tr>
<tr><td>Other income</td><td></td><td>71</td><td></td><td>70</td></tr>
<tr><td>Distribution and administration costs</td><td></td><td>(1 525)</td><td></td><td>(1 482)</td></tr>
<tr><td>Operating profit</td><td></td><td>3 355</td><td></td><td>2 968</td></tr>
<tr><td>Finance costs</td><td></td><td>(200)</td><td></td><td>(200)</td></tr>
<tr><td>Profit before tax</td><td></td><td>3 155</td><td></td><td>2 768</td></tr>
<tr><td>Taxation</td><td></td><td>(695)</td><td></td><td>(608)</td></tr>
<tr><td>Profit for the year</td><td></td><td>2 460</td><td></td><td>2 160</td></tr>
</table>

Identify **two** items in this Income Statement that will appear under a different name in the Income Statement of a not-for-profit business. [2]

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5. Describe, giving an example of each, what is meant by the terms **Closing inventory** (stock) and **Finance costs** in the Income Statement shown in Question 4.   [6]

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6. Using the Income Statement given in Question 4, calculate and comment on the **Gross profit margin** and **Rate of inventory turnover** (stockturn) for **both** 2010 and 2009.   [8]

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Total 40 marks

END OF SECTION C

Turn over.

Section D

Other decision-making tools

"I'm based in one of our two showrooms at Nat's Leisure Ltd. It's an exciting time for us because the directors are reviewing the performance of the showrooms. They may decide to merge them into one, and in addition, open a new one on another site. At the moment I'm calculating some figures and making some suggestions to do with the proposed development."

1. The information below shows recent sales figures for **one** of the showrooms. Using this table, convert these sales into index numbers. The directors use 2007 as the base year for all index number calculations.

Your index numbers should be calculated and rounded to **one** place of decimals. [3]

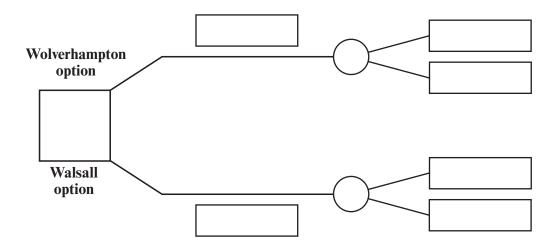| Year	Sales (£)	Index (£)
2007	4 800 000	100
2008	4 950 000	
2009	5 210 000	
2010	5 590 000	

2. Using the information provided in Question 1, identify **two other** items of information the directors will need about the **overall** sales performance of *Nat's Leisure Ltd* in order to judge its success. Justify your choice of each item.   [4]

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3. The directors may merge the two showrooms from the start of 2012. At present, each showroom specialises in and sells different types of caravan.

The directors use 2007 as the base year for all index number calculations. Explain whether the year 2007 should continue as the base year for the sales index if the showrooms are merged.
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Turn over.

4. If the directors do merge these showrooms, they will **also** open a new showroom on a different site. They use the Average Rate of Return (Accounting Rate of Return) technique to review a proposed investment such as a new showroom.

(a) What would be a suitable formula for the directors to use when calculating the Average Rate of Return? [2]

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(b) Explain the advantages and disadvantages to the directors of using the Average Rate of Return when deciding whether to open a new showroom. [8]

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5. The directors of *Nat's Leisure Ltd* are discussing whether to open the new showroom in either Wolverhampton or Walsall in the West Midlands. They have the following information.

- The investment in either showroom is expected to cost £200 000.

- Wolverhampton has a population of about 250 000 people, and there is one competitor based there.

- The probability of *Nat's Leisure Ltd* selling enough caravans in a Wolverhampton showroom to make a target £700 000 profit in the first year is 0.66.

- The probability of not meeting this target is 0.34, in which case the directors estimate a loss of £500 000.

- Walsall has a population of about 175 000 people, with no competitor in the area.

- The probability of selling enough caravans in a Walsall showroom to make a target £500 000 profit in the first year is 0.72.

- The probability of not meeting this target is 0.28, in which case the directors estimate a loss of £200 000.

Using the above information, complete the decision tree below showing costs and expected revenues for both options. [4]

Wolverhampton option

Walsall option

6. *(a)* Using the information provided in Question 5 and your responses, calculate the Expected Values for **both** options and, based on your calculations, state which one the directors should choose and why. [3]

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(b) Assess the usefulness of decision tree analysis when making **this** decision. [7]

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Turn over.

7. Dave has suggested to the directors that Gantt charts could be used if they decide to go ahead with the new showroom. The directors have asked Dave to provide some information about Gantt charts.

Using the memorandum below, state the **purpose** of Gantt charts and explain **two limitations** of using Gantt charts in **this** context. [6]

MEMORANDUM

Nat's Leisure Ltd

From: Dave Lynch   **To: Directors**

Information on Gantt charts as requested.

Purpose of using Gantt charts

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Two limitations if Gantt charts are used for the new showroom project

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Total 40 marks

END OF SECTION D

Continuation Sheet

Turn over.

Continuation Sheet