Candidate Name	Centre Number	Candidate Number
		2

GCE AS/A level

1605/01

APPLIED BUSINESS

UNIT ABUS5

Paper version of on-screen assessment

A.M. FRIDAY, 10 June 2011

2 hours

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 - 22.**

Section D **Other decision-making tools. Pages 24 - 29.**

Time allowed: *Two hours*

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

The Context for all Sections is set in the Introduction.

Quality of Written Communication

This will be assessed in questions:

Section A question 4

Section B question 3*(b)*

Section C question 5

Section D question 4 *(a)*

Calculators may be used

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INTRODUCTION

MERIWETHER PLC

Read the following information which applies to **all** Sections:

Meriwether PLC is a manufacturer and retailer of outdoor clothing.
The organisation has retail outlets throughout the UK and a factory in Wales.
Yvonne Craig is one of the staff at Meriwether PLC.

Hello. My name's Yvonne Craig. I work for Meriwether PLC. Our company has retail outlets throughout the UK and we have a factory in Wales.

Our business is making and selling clothes for outdoor use. Our factory makes the clothes we sell, although the outlets also sell outdoor items such as tents that are made by other manufacturers. I'm based at the factory but I also get to visit our outlets to discuss the products we make with our sales staff.

At Meriwether PLC we're specialists, prepared to give the right advice and sell the right product at the right price, whether our customers are planning a regular family camping holiday or, at the other extreme, a climbing expedition to the Himalayas. Our job is to equip them so they are protected from the weather whilst enjoying their adventure outdoors.

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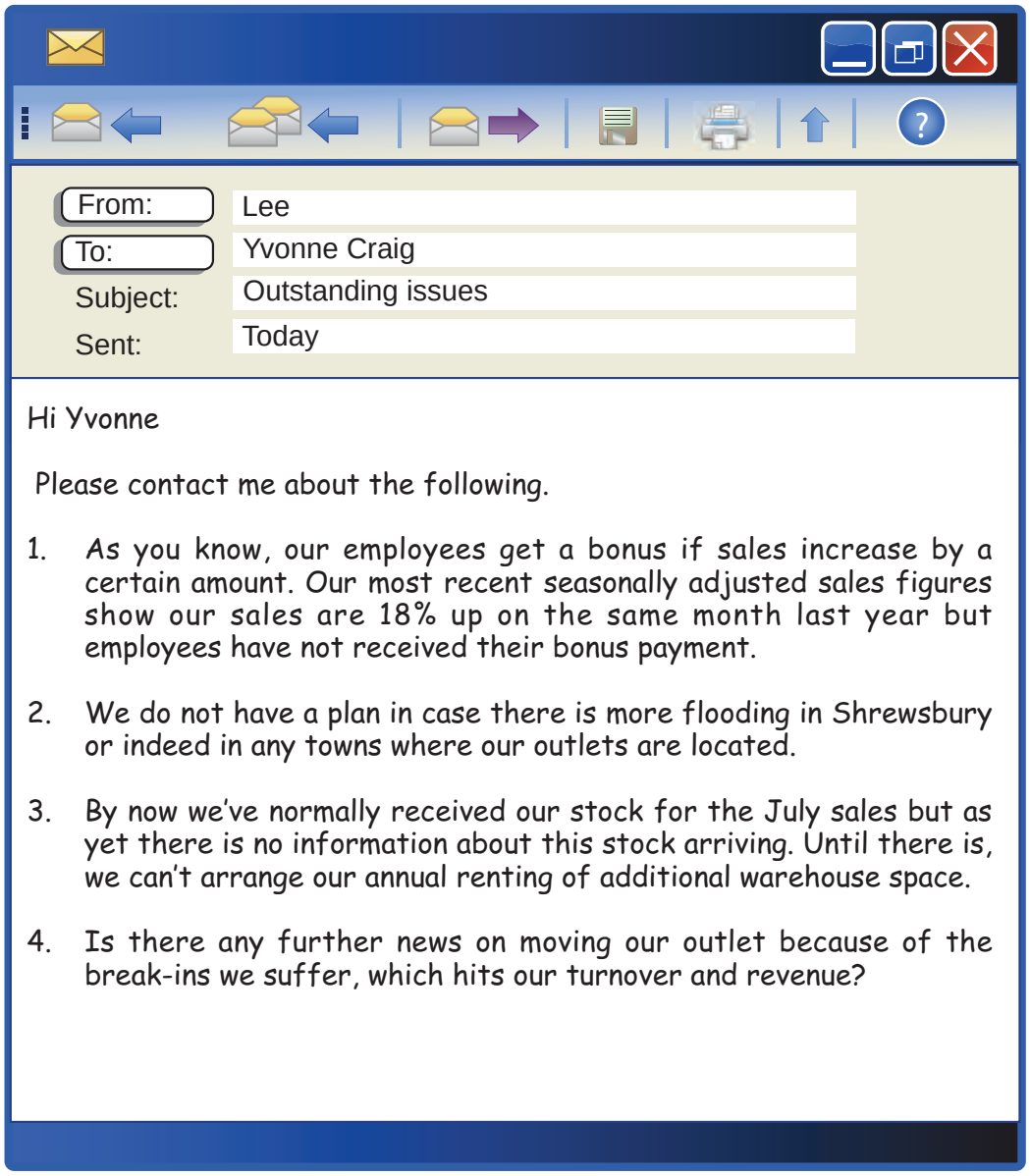
SECTION A

Decision-making and the Marketing function

I've mentioned that at Meriwether PLC we try to sell the right product at the right price. We therefore keep a close eye on our product portfolio to make sure that the products we sell are what people want whilst at the same time are profitable for us. We're in close contact with our UK outlets, and regularly review whether to modernise them, move them, or open a new outlet.

1. Yvonne has received the following email from Lee, the Manager of the Meriwether PLC outlet in Shrewsbury.



From: Lee
To: Yvonne Craig
Subject: Outstanding issues
Sent: Today

Hi Yvonne

Please contact me about the following.

1. As you know, our employees get a bonus if sales increase by a certain amount. Our most recent seasonally adjusted sales figures show our sales are 18% up on the same month last year but employees have not received their bonus payment.

2. We do not have a plan in case there is more flooding in Shrewsbury or indeed in any towns where our outlets are located.

3. By now we've normally received our stock for the July sales but as yet there is no information about this stock arriving. Until there is, we can't arrange our annual renting of additional warehouse space.

4. Is there any further news on moving our outlet because of the break-ins we suffer, which hits our turnover and revenue?

Examiner only

Identify **two** examples of a **random** variation, and **two** examples of a **non-random** variation, mentioned by Lee. [4]

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2. Lee's email mentions 'seasonally adjusted sales figures'.

What is meant by seasonally adjusted sales figures? [2]

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Examiner only

3. Lee uses time series analysis of the outlet's sales when deciding whether to appoint full-time staff at the Shrewsbury outlet.

Examine why Lee should **not** rely solely on time series analysis of the outlet's sales for **this** purpose. [6]

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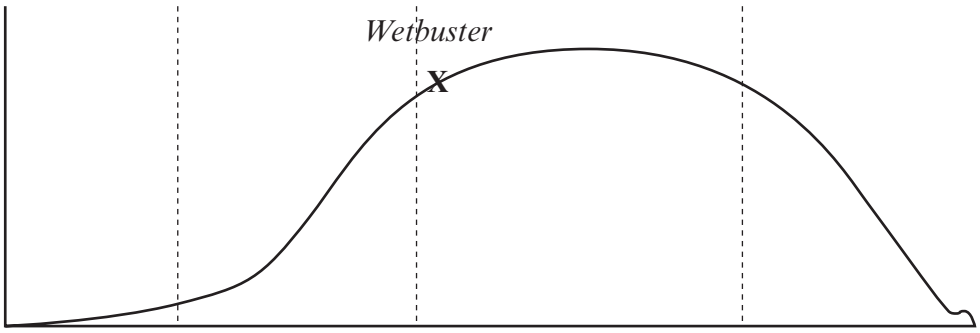
Examiner only

4. Lee has analysed one of *Meriwether PLC's* items - the *Wetbuster* tent - in terms of its position on the product life cycle, to help Yvonne establish a suitable marketing strategy. Lee has drafted the unlabelled product life cycle diagram below and shown the position of the *Wetbuster* on it.



'X' indicates the stage in the life cycle for the *Wetbuster*.

To what extent can this information about the product life cycle of the *Wetbuster* tent be used to make marketing decisions about it? [8]

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Examiner only

5. The directors of *Meriwether PLC* are examining the possibility of relocating the Shrewsbury outlet to Telford, a neighbouring town whose centre is not affected by the local river flooding. They propose sampling the Telford population to see whether there is interest in a new *Meriwether PLC* outlet in the town.

Yvonne has collected the following information about population.

Telford population statistics: population size about 158 500 (2001 census)

Age and sex

Age	Number	Percentage in age group compared with the national average
0 - 9	21 500	**Higher** than the national average
10 - 19	22 000	**Higher** than the national average
20 - 29	20 000	**Higher** than the national average
30 - 39	26 000	The **same** as the national average
40 - 49	22 000	The **same** as the national average
50 - 59	20 000	The **same** as the national average
60 and over	27 000	**Below** the national average
Total	**158 500**	
% male	**49**	
% female	**51**	

Shrewsbury has a population of about 95 000 (2001 census), of which the percentage aged

- 50 and over is **higher** than the national average
- 30 to 49 is the **same as** the national average
- 29 and under is **below** the national average.

Examiner only

Using this information, give **two** reasons that suggest a move from Shrewsbury to Telford would be appropriate. [4]

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6. Yvonne has chosen to use **quota** sampling rather than random sampling for the task of sampling Telford's Population.

(a) Why is simple random sampling **not** appropriate for **this** task? [2]

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(b) Describe how quota sampling works. [4]

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(c) Why is quota sampling a non-random method? [2]

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Examiner only

7. Yvonne has decided to sample the age groups shown in the table below.

(a) Calculate and enter in the table a 0.5% sample of **this** population, divided in proportion between the age groups and between males and females. [4]

Age	Number	Sample size		
		Male (49%)	Female (51%)	Total
20 - 29	20 000			
30 - 39	26 000			
40 - 49	22 000			
50 - 59	20 000			
Total	88 000			

(b) Explain **two** advantages of using quota sampling for **this** task. [4]

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Total 40 marks

END OF SECTION A

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Examiner only

SECTION B

Decision-making and the Production function

1. Yvonne gets confused between three stock terms that include the word 'level'.

Using the stock control graph opposite, define each of the following stock terms, and use the graph to identify the amount of stock in each case.

- Maximum stock level

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- Buffer stock level

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- Re-order level

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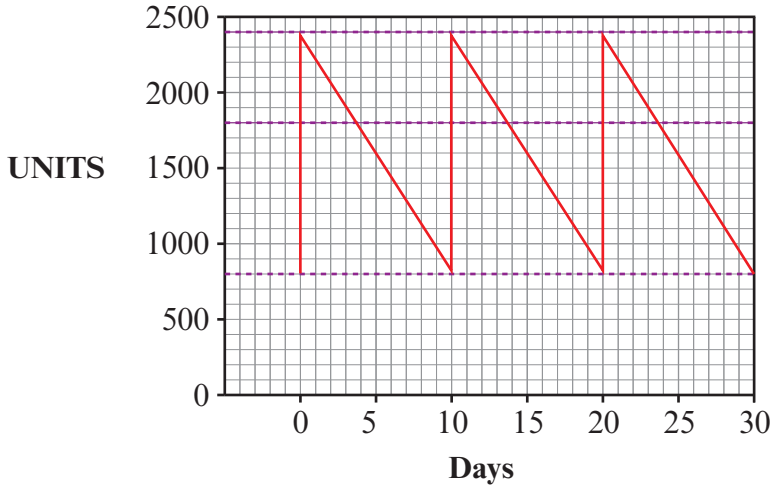
[6]

Planned Stock Control Graph



2. Using the stock control graph from Question 1, calculate for this stock item the following:

- Re-order quantity

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- Weekly usage (the factory works a 7-day week)

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- Frequency of orders

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[4]

Examiner only

3. *(a)* Identify **two** factors that will influence *Meriwether PLC* when deciding on the buffer stock level and the re-order quantity. [2]

(b) Examine the benefits to *Meriwether PLC* of holding a higher level of stock against the costs of holding this stock. [8]

Examiner only

4. *Meriwether PLC's* factory uses flow production methods when producing waterproof fabric used in its clothes.

Identify **two** factors that help decide whether a factory such as *Meriwether PLC's* is able to use flow production methods. [4]

5. Explain **one benefit** and **one drawback** for *Meriwether PLC's* **employees** as a result of working on a flow production line. [4]

Examiner only

6. Describe, with examples, the following economies of scale that *Meriwether PLC* gains as a result of using flow production.

(a) Technical

[4]

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(b) Managerial

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Examiner only

7. Explain **one** reason why it is important to *Meriwether PLC* to gain economies of scale. [4]

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Total 40 marks

END OF SECTION B

SECTION C

Decision-making and the Finance function

At Meriwether PLC's factory we make many of the clothing ranges that we sell. One of our key tasks is to control costs, which we do by using budgeting and other financial techniques. Some costs such as raw materials are outside our control so we are continually checking the performance of our suppliers to make sure they provide good quality materials at a reasonable price.

1. *Meriwether PLC* manufactures the *Climbfine* climbing jacket for mountaineers. This jacket is made out of a special waterproof and breathable material. Yvonne has started to prepare a flexible budget for the *Climbfine*.

Describe the difference between a flexible budget and a fixed budget. [4]

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2. Yvonne has prepared the *Climbfine* budget at 100% activity.

(a) Complete the flexed budget for the *Climbfine* for 80% and 90% levels of activity. [5]

(b) Calculate the expected profit or loss at all three levels of activity. [3]

Examiner only

	Levels of activity (%)		
	80	**90**	**100**
	£	**£**	**£**
Sales			31 000
Direct labour			12 500
Direct materials			7 500
Fixed overheads			6 500
Variable overheads			1 750
Profit/(loss)			

(c) Using the completed table above, state what profit or loss *Meriwether PLC* is expected to make if the actual level of activity is 70%. [2]

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3. Assess the value to *Meriwether PLC* of using flexible budgets rather than fixed budgets. [6]

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Examiner only

4. *Cellmore PLC* and *Staydri Ltd* are the two suppliers for the *Climbfine* raw material. Yvonne has tried to calculate the gearing ratios for each company, but does not understand the term 'gearing'.

(a) What is 'gearing'? [2]

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(b) Outline **one** reason why the measurement of gearing is important to companies such as *Cellmore PLC* and *Staydri Ltd*. [2]

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5. Yvonne has the following information from the most recently published financial statements of each supplier.

Supplier Financial Information

Supplier	*Cellmore PLC*	*Staydri Ltd*
Accounting year end	5 April	31 December
Acid Test ratio	0.92 to 1	0.41 to 1
Current ratio	1.45 to 1	0.56 to 1
Return on capital employed	4.5%	8.9%
Profit in relation to revenue ('profit margin')	5.6%	7.1%
Receivables collection period ('debtor days')	28 days	42 days

Meriwether PLC has always used *Cellmore PLC* as the main supplier of material for the *Climbfine*, and plans to continue doing so.

Examiner only

Assess the extent to which this information confirms that *Meriwether PLC* should continue using *Cellmore PLC* as the main supplier of materials for the *Climbfine*. [10]

Examiner only

6. *(a)* Give **two** reasons why the financial information given in Question 5 does not necessarily give an accurate comparison of the two companies. [4]

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(b) State **two other non-financial** factors that *Meriwether PLC* should take into account when deciding whether to keep *Cellmore PLC* as its main supplier of this material. [2]

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Total 40 marks

END OF SECTION C

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SECTION D

Other decision-making tools

At present I'm doing some work on what the directors call the 'Magazine Project'. We are very successful at making and selling high quality clothing for outdoor activities, but our specialist climbing equipment does not sell well and needs to be promoted more. As a result, the directors plan to start publishing a monthly specialist magazine for people who take climbing seriously.

1. Yvonne has produced the estimates for the 'Magazine Project' .

Magazine monthly sales (units)

4 000	probability of 0.2
5 000	probability of 0.55
7 500	probability of 0.25

Each magazine is expected to sell for £1.95.

Cost of a magazine (£)

1.60	probability of 0.5
1.80	probability of 0.25
2.00	probability of 0.25

Examiner only

What is meant by 'probability'? [2]

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2. Calculate for the Magazine Project the expected

(a) total monthly sales (in units) [3]

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(b) cost of **one** magazine [3]

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(c) total monthly profit or loss [4]

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Examiner only

3. *(a)* Yvonne has not yet constructed a decision tree diagram because she is unsure of the difference between a decision tree diagram and a critical path (network) diagram.

How does the purpose of each diagram differ? [4]

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(b) Examine **two** ways in which **critical path analysis** could help the directors if they go ahead with the Magazine Project. [4]

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Examiner only

4. The directors plan to sell the magazine for 5 years. They will need to buy a printing machine, and have two alternatives. The *Colourfast* prints in 3 colours and the *Printpress* in 6 colours. The difference in the printing quality is expected to affect sales.

The table below gives information about the printing machines.

	Colourfast	***Printpress***
Cost of purchase	£62 500	£77 000
Estimated life	5 years	5 years
Estimated scrap value	£12 500	£15 000
Estimated future cash flows:		
Year 1	£16 500	£19 000
Year 2	£22 000	£26 000
Year 3	£22 000	£26 000
Year 4	£15 000	£18 000
Year 5	£8 000	£9 000

(a) Using the Payback method, calculate the payback time for **both** machines and state, with a reason, which machine should be purchased according to this method. [8]

Examiner only

(b) Outline **two** advantages to the directors of using the Payback method for investment appraisal. [4]

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5. Yvonne has suggested to the directors that they use the Discounted Cash Flow (DCF) method to review both machines.

Outline **one** way in which the Payback and DCF methods are:

- similar
- different.

[4]

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Examiner only

6. The directors have decided to buy the *Colourfast* printer. Using the information given in Question 4, calculate the average (accounting) rate of return for **this** machine. [4]

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Total 40 marks

END OF SECTION D

Examiner only

For continuation use only.

Examiner only

Turn over.

Examiner only