Paper Reference(s)

5381H/6B

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 6 – Section B (Non-Calculator)

Higher Tier

Unit 1 Test – Data Handling

Monday 13 June 2011 – Morning

Time for Section B: 20 minutes

Materials required for examination
Ruler graduated in centimetres and
millimetres, protractor, compasses,
pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers
Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature.
Check that you have the correct question paper.
Answer ALL the questions. Write your answers in the spaces provided in this question paper.
If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. **(2)**.
This section has 4 questions. The total mark for this section is 15. The total mark for this paper is 30.
There are 8 pages in this question paper. Any blank pages are indicated.
Calculators may be used for Section A only.

Advice to Candidates

Show all stages in any calculations.
Work steadily through the paper. Do not spend too long on one question.
If you cannot answer a question, leave it and attempt the next one.
Return at the end to those you have left out.

Turn over

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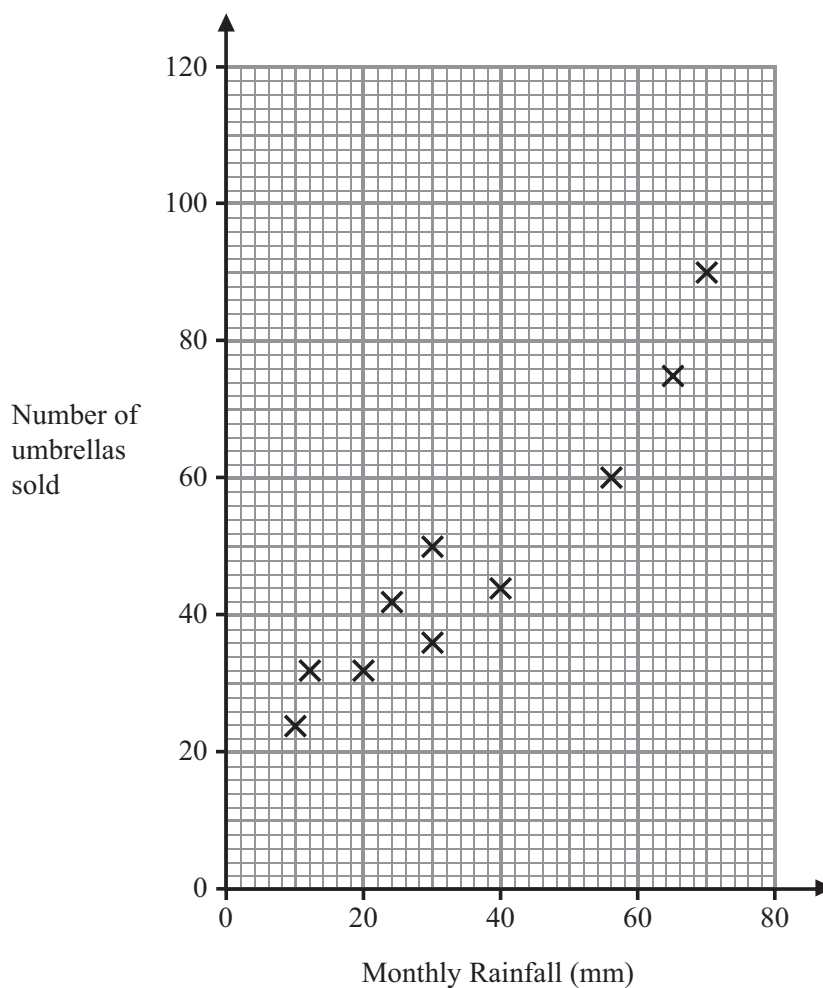
SECTION B

Answer ALL FOUR questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You must NOT use a calculator in this section.

1. The scatter graph shows information about the monthly rainfall (mm) and the numbers of umbrellas sold in a shop for ten months last year.

Monthly Rainfall (mm)

The table shows the monthly rainfall and the numbers of umbrellas sold, for two more months.

Monthly rainfall (mm)	40	50
Number of umbrellas sold	60	75

(a) On the scatter graph, plot the information from the table.

(1)

(b) Describe the relationship between the monthly rainfall and the number of umbrellas sold.

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(1)

(c) Draw a line of best fit on the scatter graph.
(1)

In another month, the rainfall was 60 mm.

(d) Use your line of best fit to estimate the number of umbrellas sold.

....

(1)
(Total 4 marks)

Q1

2. Customised Cars sells cars.
The table shows some information about the number of cars sold each month from Jan to Jun last year.

2010	Jan	Feb	Mar	Apr	May	Jun
Number of cars sold	15	14	13	18	14	16
3-point moving average		14	15	15		

(a) Work out the missing 3-point moving average.
Write your answer in the table.

(2)

In January 2011 Customised Cars sold no cars.
The moving average for Jan, Feb and Mar 2011 was 14

2011	Jan	Feb	Mar
Number of cars sold	0		
3-point moving average		14	

(b) Explain how this moving average could be 14

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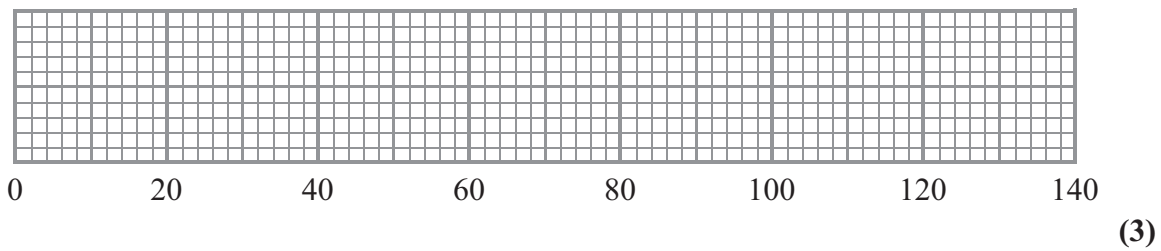
(1)

(Total 3 marks)

3. The table below shows some information about the total monthly rainfall in Manchester during 2007 and 2008

	Rainfall (mm)
Maximum	86
Minimum	50
Median	68
Upper quartile	80
Lower quartile	54

(a) On the grid, draw a box plot for this information.

| 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 |

(3)

The box plot below shows some information about the total monthly rainfall in Eastbourne during 2007 and 2008

| 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 |
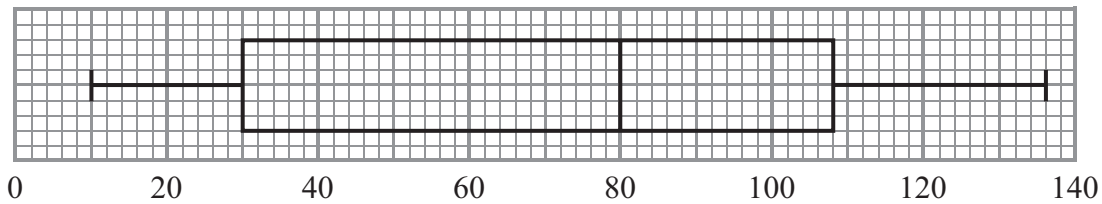
(b) Compare the distribution of the rainfall in Manchester and the distribution of the rainfall in Eastbourne.

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(2)

(Total 5 marks)

4. Jeff recorded the times taken to wash 60 cars at a car wash.
The grouped frequency table shows some information about these times.

Time taken (t minutes)	Frequency
$0 < t \leqslant 5$	8
$5 < t \leqslant 10$	12
$10 < t \leqslant 15$	22
$15 < t \leqslant 20$	13
$20 < t \leqslant 25$	5

(a) Complete the cumulative frequency table.

Time taken (t minutes)	Cumulative Frequency
$0 < t \leqslant 5$	8
$0 < t \leqslant 10$	
$0 < t \leqslant 15$	
$0 < t \leqslant 20$	
$0 < t \leqslant 25$	

(1)

(b) On the grid, draw a cumulative frequency graph for your table.

Cumulative
frequency

Time (*t* minutes)

(2)
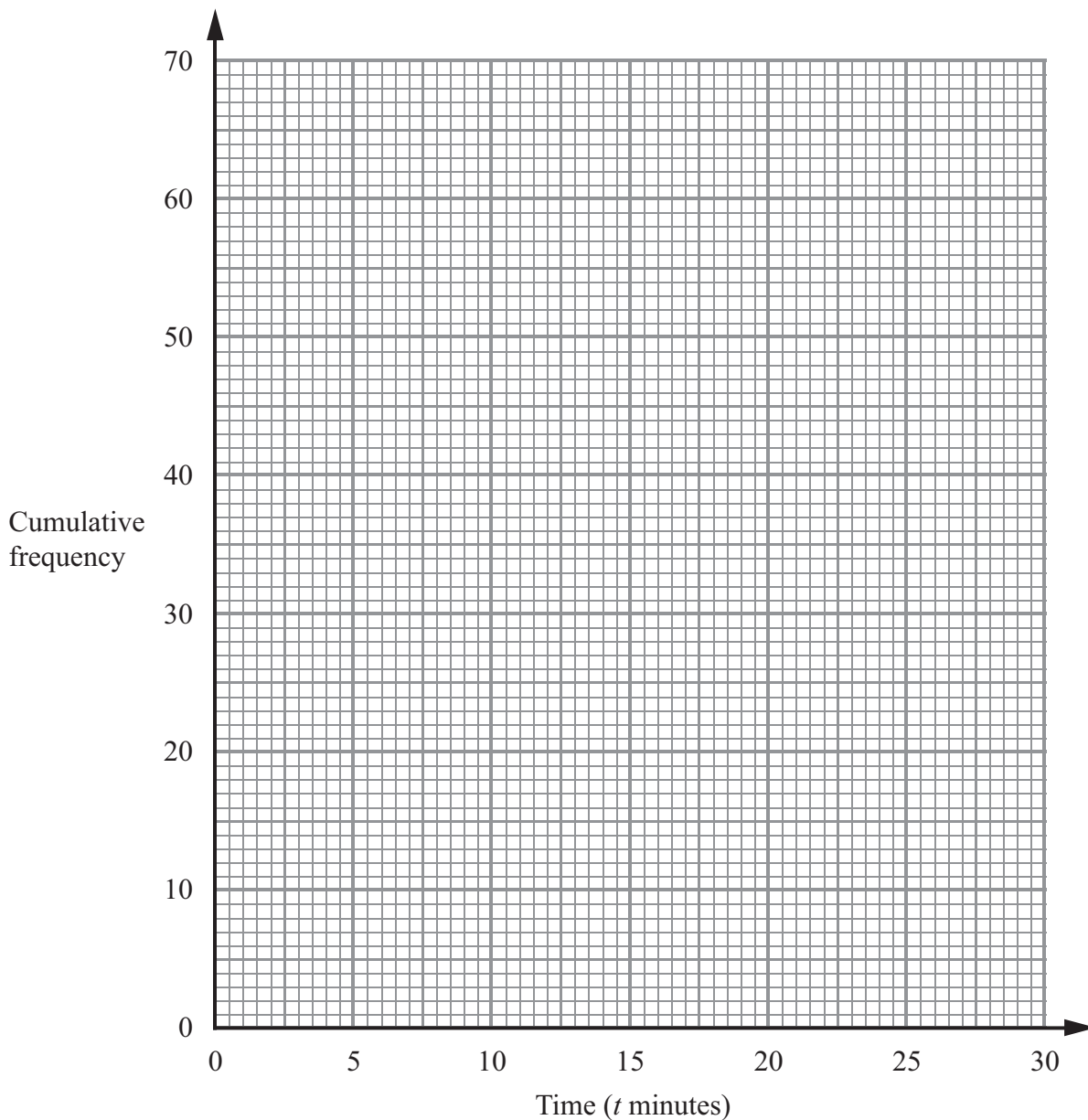
(Total 3 marks)

TOTAL FOR SECTION B: 15 MARKS
TOTAL FOR PAPER: 30 MARKS

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