THIS IS A LEGACY SPECIFICATION

M5

OCR RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION

MATHEMATICS C (GRADUATED ASSESSMENT)

MODULE M5 – SECTION A

B275A
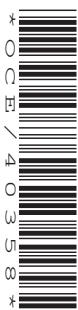
Candidates answer on the question paper.

OCR supplied materials:
None

Other materials required:
• Geometrical instruments
• Tracing paper (optional)
• Pie chart scale (optional)

Thursday 20 January 2011
Morning

Duration: 30 minutes

Candidate forename		Candidate surname	

Centre number					Candidate number				

MODIFIED LANGUAGE

INSTRUCTIONS TO CANDIDATES

• Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
• Use black ink. Pencil may be used for graphs and diagrams only.
• Read each question carefully. Make sure you know what you have to do before starting your answer.
• Show your working. Marks may be given for a correct method even if the answer is incorrect.
• Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
• Answer **all** the questions.
• Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

• The number of marks is given in brackets **[ ]** at the end of each question or part question.
• The total number of marks for this Section is **25**.
• This document consists of **8** pages. Any blank pages are indicated.

WARNING

⊠ No calculator can be used for Section A of this paper

OCR is an exempt Charity

Turn over

Formulae Sheet

Area of trapezium $= \frac{1}{2}(a + b)h$
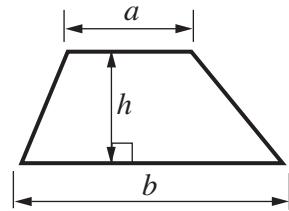
**Volume of prism** = (area of cross-section) × length
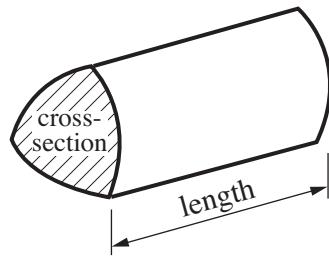
PLEASE DO NOT WRITE ON THIS PAGE

1 Here is a map showing farms near Hele.
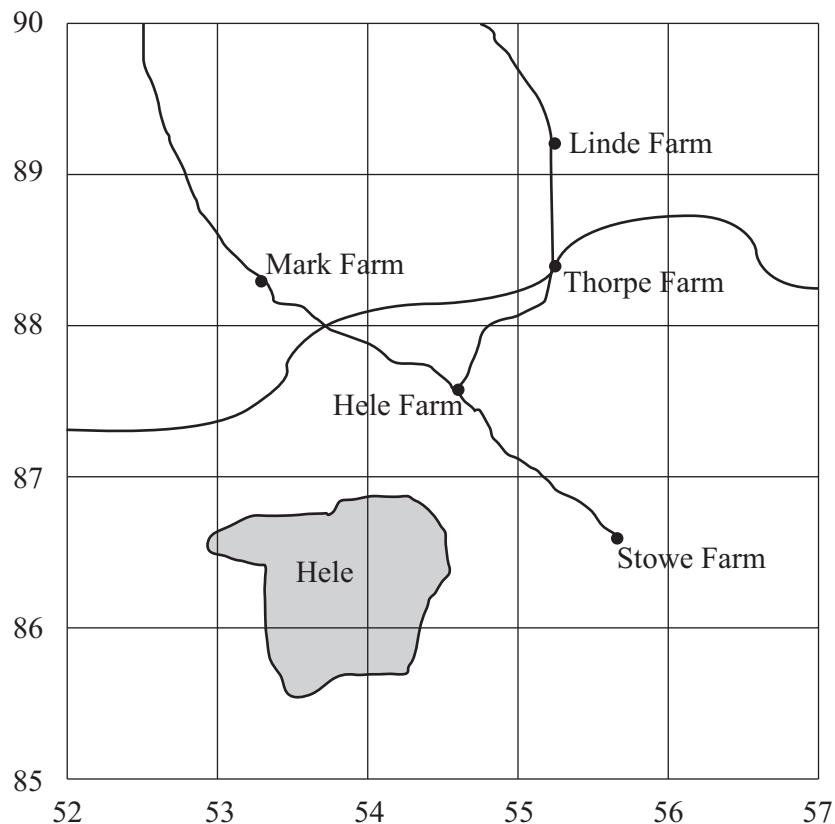
(a) Which farm has the four-figure grid reference 5588?

(a) ....[1]

(b) Give the four-figure grid reference of Hele Farm.

(b) ....[1]

(c) Thorpe Farm to Linde Farm is 800 m.

Estimate the distance from Stowe Farm to Mark Farm.

(c) .... m [1]

2 Write 37·19 correct to

    (a) one decimal place,

                                        (a) .... **[1]**

    (b) one significant figure.

                                          (b) .... **[1]**

3 **(a)** Write an expression, in its simplest form, for the perimeter of this quadrilateral.

Not to scale
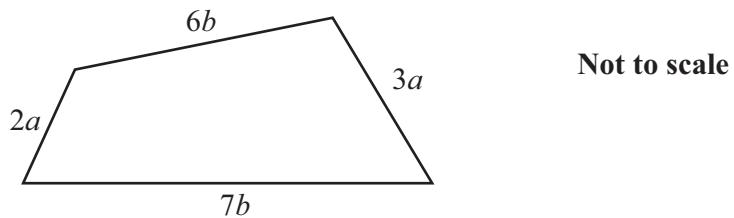
                                        (a) .... **[2]**

    (b) Solve.

        (i) $12 = x + 5$

                                      (b)(i) .... **[1]**

        (ii) $4x + 17 = 5$

                                      (ii) .... **[2]**

4 **(a)** Write this expression as a power of 3.

$$3 \times 3 \times 3 \times 3 \times 3$$

(a) .... **[1]**

(b) Work out.

$$4^3 + 3^2$$

(b) .... **[2]**

5 **(a)** Write this fraction in its simplest form.

$$\frac{24}{40}$$

(a) .... **[1]**

(b) Work out.

(i) $\frac{3}{5} \times \frac{1}{2}$

(b)(i) .... **[1]**

(ii) $^-3 \times 5$

(ii) .... **[1]**

Turn over

6 Joe is taking his driving test.
The probability that he passes the test is 0·35.

What is the probability that Joe fails the test?
Give a reason for your answer.

.... because ....

.... **[2]**

7 The table summarises the marks for a test taken by two classes.

	Mean	Range
11A	53·6	24
11B	45·1	42

(a) Make two comments comparing the results.

1 ....

....

2 ....

.... **[2]**

(b) Samit scored the lowest mark in class 11A and Gina scored the highest mark.
Samit scored 39.

What was Gina's mark?

(b) .... **[1]**

8 Here is a full-size net of a cuboid.
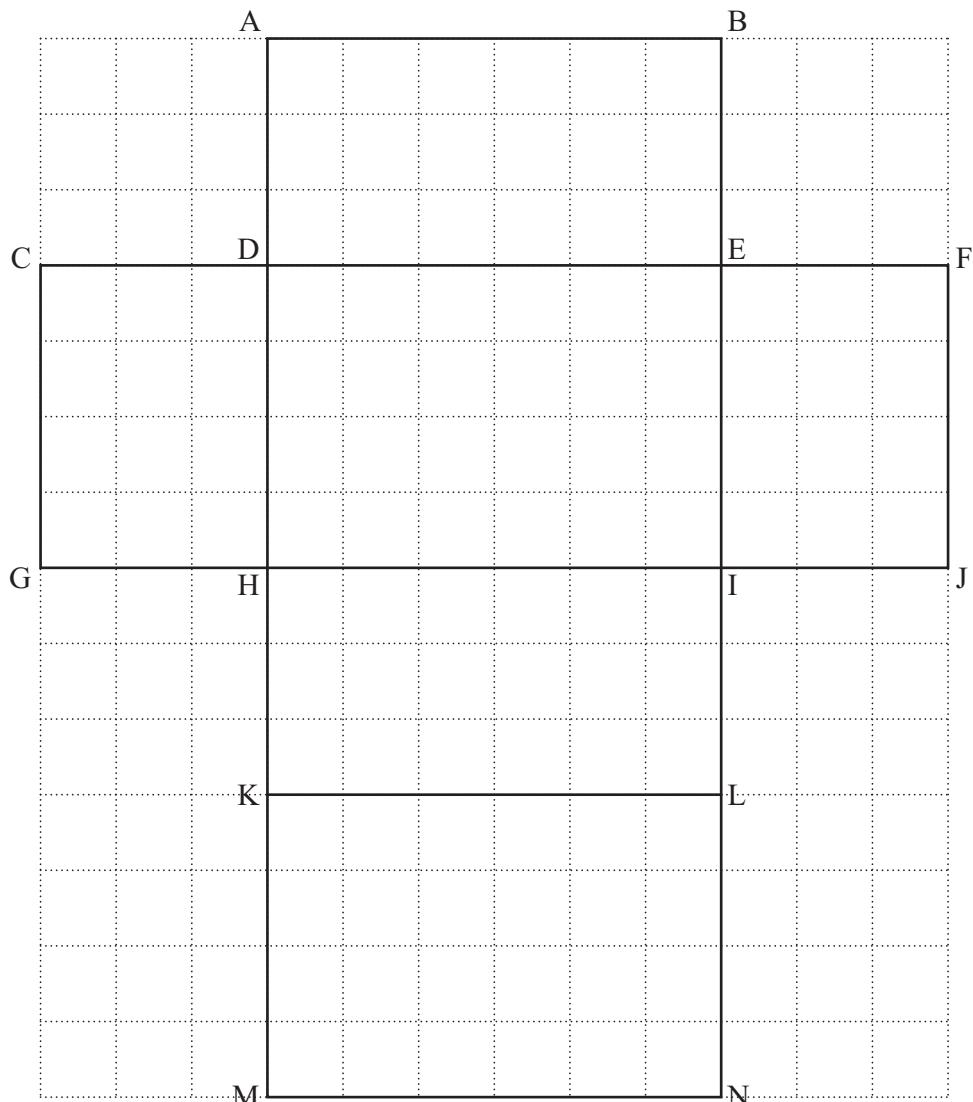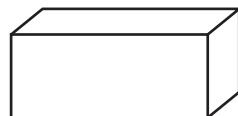
(a) The net is folded to make the cuboid.
Which corners join to corner A?

(a) .... **[1]**

(b) Work out the volume of the cuboid.
Give the units of your answer.

(b) .... **[3]**

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