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|---------------|--|--|--|--|--|-----------------|---|---|---|---|---|---------|------------|-----------|
| Centre No. | | | | | | Paper Reference | | | | | | Surname | Initial(s) | |
| Candidate No. | | | | | | 5 | 3 | 8 | 1 | H | / | 6 | A | Signature |

Paper Reference(s)

5381H/6A

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 6 – Section A (Calculator)

Higher Tier

Unit 1 Test – Data Handling

Monday 13 June 2011 – Morning

Time for Section A: 20 minutes



Examiner's use only

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Team Leader's use only

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| Section | Leave Blank |
|---------|-------------|
| A | |
| B | |

Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser, calculator. 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.

If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

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.

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SECTION A

Answer ALL FOUR questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You may use a calculator in this section.

- 1.** Lupin seeds can grow into pink or yellow or red or blue flowers.

The table shows the probability that a seed will grow into a pink or a yellow or a red flower.

| | | | | |
|-------------|------|--------|------|------|
| Colour | pink | yellow | red | blue |
| Probability | 0.30 | 0.25 | 0.30 | |

A seed is chosen at random from a packet of mixed lupin seeds.

- (a) Work out the probability that the seed will grow into a blue flower.

.....
(2)

200 mixed lupin seeds are planted in a garden.

- (b) Work out an estimate for the number of these seeds that will grow into pink flowers.

.....
(2)

(Total 4 marks)

Q1



2. A group of 30 students walked around a park for a charity event. The table shows some information about the times they took.

| Time taken (t minutes) | Frequency |
|---------------------------|-----------|
| $10 \leq t < 20$ | 3 |
| $20 \leq t < 30$ | 10 |
| $30 \leq t < 40$ | 13 |
| $40 \leq t < 50$ | 4 |

- (a) Work out an estimate for the mean time taken.

..... minutes
(4)

A student came 25th in the charity event.

- (b) What is the shortest time he could have taken?

..... minutes
(1)

(Total 5 marks)

Q2



3. The table shows the numbers, in thousands, of different types of homes in the UK in 2001.

| Type of homes | Detached house | Semi-detached house | Terraced house | Flat | Total |
|--------------------|----------------|---------------------|----------------|------|-------|
| Number (thousands) | 5600 | 8150 | 7380 | 4330 | 25460 |

(Source: 2001 Census.)

Mary takes a sample of 500 homes stratified by type.

Calculate the number of terraced houses that she should have in her sample.

.....

(Total 2 marks)

Q3



4. Amy has three pencil cases.

In her Hearts pencil case, she has seven black pens and three red pens.
In her Furry pencil case, she has six black pens and four green pens.
In her New Moon pencil case, she has five black pens and five blue pens.

Amy takes, at random, one pen out of each pencil case.

Work out the probability that she takes exactly one black pen.

Q4

(Total 4 marks)

TOTAL FOR SECTON A: 15 MARKS

END



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