Equipment required for this examination:

- normal writing and drawing instruments
  - a calculator
  - a compass
  - coloured pencils

Instructions to candidates:

- Use a ball-point pen for writing. Use pencil / pen for drawing.
- Answer all questions.
- You must answer the questions in the spaces provided.
- Do all rough work in this book. Cross through any work that you do not want to be marked.

Information

- The marks for each question are displayed.
- The maximum mark for this paper is 40.
<table>
<thead>
<tr>
<th>QUESTIONS / INSTRUCTIONS</th>
<th>YOUR ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Print your name in BLOCK CAPITALS, between two faint parallel, straight, horizontal lines, 10mm apart.</td>
<td>YOUR NAME</td>
</tr>
</tbody>
</table>

(4 marks)

2. Using a compass, draw a circle with the radius of 25mm.

(4 marks)

3a. Using a ruler, draw a square with 40mm sides.

3b. Carefully shade the square. Starting with dark on the left and gradually getting lighter, to the right.

(4 marks)
A
LOTUS SPORT

B
RALEIGH ‘CHOPPER’

C
WALKING MACHINE
4a. Which of the bicycles A, B or C is the oldest?  

LETTER: ________  

Why do you think it is the oldest?  (3 marks)  

__________________________________________  

__________________________________________  

__________________________________________  

__________________________________________  

(1 mark)

4b. Which of the bicycles A, B or C is the most interesting.  

LETTER: ________  

Why do you think it is the most interesting?  (3 marks)  

__________________________________________  

__________________________________________  

__________________________________________  

__________________________________________  

(1 mark)

4c. Describe ONE improvement you could make to ONE of the bicycles.  

LETTER: ________  

__________________________________________  

__________________________________________  

__________________________________________  

__________________________________________  

(4 marks)
CALCULATING
(Calculators permitted)

INSTRUCTIONS: In the shaded boxes are example questions and answers. You must answer the questions in the unshaded boxes.

RATIOS - YOUR EXAMPLE QUESTION AND ANSWER

An example of a ratio is: 4:1

Here we see 4 shaded circles compared to 1 unshaded circle.

5a. YOUR QUESTION

\[
\begin{array}{c}
\text{Here we see ___ shaded circles compared to ___ unshaded circles.}
\end{array}
\]

2 marks

2 marks

AREAS - YOUR EXAMPLE QUESTION AND ANSWER

Calculate the area of the square shown opposite. The length of one side is 100mm

\[\text{AREA} = X^2\]

\[\text{AREA} = 100\text{mm} \times 100\text{mm}\]

\[\text{AREA} = 10000\text{mm}^2\]

5b. YOUR QUESTION

Calculate the area of the square shown opposite. The length of one side is 50mm

\[\text{AREA} = X^2\]

\[\text{AREA} = _____ \times _____ \text{ 2 marks}\]

\[\text{AREA} = \text{______________} \text{ 2 marks}\]
6. The example answer below, shows the word ‘SUN’, drawn in an artistic way. Colour and images that reflect the meaning of sun and sunny days, have been included, as an aspect of the design.

You are to convert the word ‘WINTER’, so that it is presented artistically. Your design should include: colours and images that reflect the meaning of the word.

(8 marks)