### INSTRUCTIONS TO CANDIDATES:

Read all the questions carefully before you start answering.

- Answer all questions.
- This paper carries 25 marks.
- **Calculators, protractors** and other mathematical instruments are NOT ALLOWED.
- On your desk you should have nothing except for pen, pencil, ruler and the examination paper.
1. Work out $5 \frac{1}{3} + \left(3 \frac{3}{5} \div \frac{3}{5}\right)$. Give your answer as a **mixed fraction** in its simplest form.

Answer: _________

(4 marks)

2. The circumference of the earth is 40,075,000 m.
   i) Round this number correct to **4 significant figures**.

Answer: ____________ m

ii) Write your answer in part i) in **standard form**.

Answer: ________________ m

(2 marks)

3. 2 people take 3 hours 30 mins to paint a room. How long does it take 3 people to paint the same room?
   *Assume that everyone works at the same rate.*

Answer: ____________

(2 marks)

4. What is the length of AB?

\[ AB = _______ \text{cm} \]

(1 mark)
5. The formula for finding the simple interest is \( I = \frac{PTR}{100} \)
   
i) Make R the subject of the formula.

\[ R = \underline{\phantom{0000}} \]

ii) Mark invests €9000 for 24 months earning a simple interest of €450. What is the rate of investment?

\[ \text{Answer: } \underline{\phantom{000}} \% \] (5 marks)

6. Continue the following procedure to draw a regular decagon (10 sides). Each side has a length of 40 turtle steps.

\[ \text{PD} \]
\[ \text{REPEAT } ____ \ [\text{FD} ____ \ \text{RT } ____] \]
\[ \text{END} \]

(3 marks)

7. The following are the temperatures for the first 10 days of January:
   
   \[ 9°C \ 5°C \ 5°C \ 6°C \ 9°C \ 9°C \ 7°C \ 5°C \ 8°C \ 8°C. \]

   Work out the mode/s and the median.

   \[ \text{Mode/s } \underline{\phantom{0000}} °C \]
   \[ \text{Median } \underline{\phantom{000}} °C \]

   (3 marks)

8. i) Simplify completely \( \frac{4y^3 + 8y^2}{2y^2 + 4y} \).

   \[ \text{Answer: } \underline{\phantom{0000}} \]

   ii) Solve \( 4(x + 3) - 2(x - 3) = 6 \)

   \[ x = \underline{\phantom{0000}} \]

   (5 marks)

END OF NON CALCULATOR PAPER