OCR
RECOGNISING ACHIEVEMENT

ENTRY LEVEL CERTIFICATE

SCIENCE

Test P9 Driving Along

R591 P9

Candidates answer on the question paper

OCR Supplied Materials:
None

Other Materials Required:
• None

Duration: 10 minutes

Candidate Forename		Candidate Surname	

Centre Number						Candidate Number				

INSTRUCTIONS TO CANDIDATES

• Write your name, Centre Number and Candidate Number in the boxes above. Please write clearly and in capital letters.
• Read each question carefully. Make sure you know what you have to do before starting your answer.
• Answer **all** the questions.

INFORMATION FOR CANDIDATES

• The number of marks for each question is given in brackets **[ ]** at the end of each question or part question.
• The total number of marks for this paper is **15**.
• This document consists of **4** pages. Any blank pages are indicated.

| For Teacher's Use	
Raw Mark/ 15	
Points/ 2	

OCR is an exempt Charity

Turn over

Answer **all** questions.

1 Most cars use petrol as the fuel.

(a) Write down the name of **one** other fuel used in cars.

.... **[1]**

(b) The picture shows the four strokes of a petrol engine.
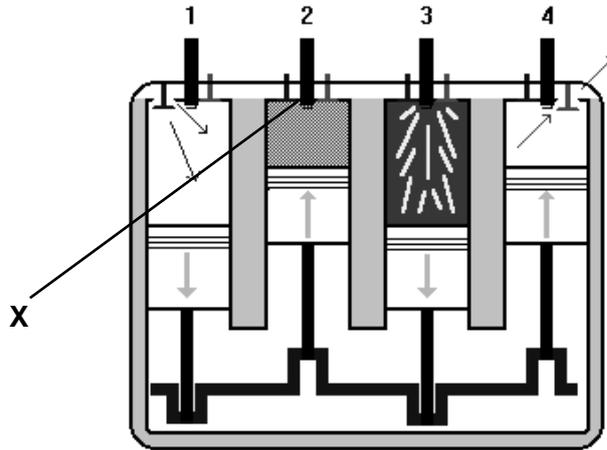
(i) The part labelled **X** provides the source of ignition.

What is this part called? Put a ring around the correct answer.

exhaust valve

inlet valve

piston ring

spark plug

[1]

(ii) Look at the diagram.

Finish the table by writing in the number next to the name of the stroke.

One has been done for you.

stroke name	stroke number
compression	2
exhaust	
ignition or power	
induction	

[2]

SPECIMEN

2 Motor cars use different machines to make them work.

   (a) Finish the sentence by choosing the best words from this list.

brake pedal

gear lever

headlamp bulb

steering wheel

The wheel and axle is a machine used by the .... **[1]**

   (b) The diagram shows two gear wheels.

   Wheel **A** is turning in the direction shown by the arrow.

   Wheel **A** is turning wheel **B**.
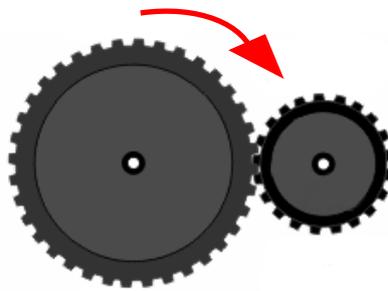
A   B

   (i) Wheel **A** has 75 teeth and wheel **B** has 25 teeth.

   Calculate the gear ratio for the gear system.

   gear ratio = ... **[2]**

   (ii) Draw an arrow on the diagram to show which way wheel **B** turns. **[1]**

3 John drives 150km in 3 hours.

   What is his average speed?

   Put a ring around the correct answer.

   50km/h   **147km/h**   **153km/h**   **450km/h**

[1]

4 The diagram shows a simple DC motor.

commutator
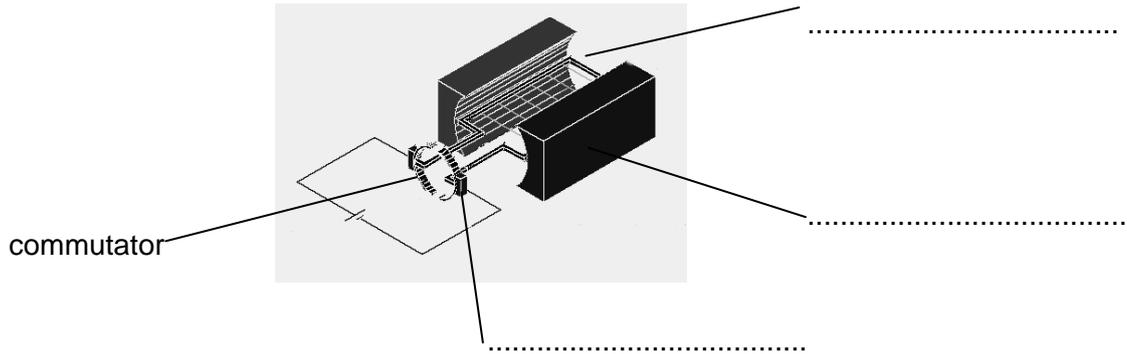
(a) Finish labelling the diagram. Choose **three** words from this list.

brush	**coil**	**magnet**	**rotator**

[3]

(b) Write down **one** use for a motor in a car.

.... **[1]**

5 Sally is looking at a table of stopping distances from the Highway Code.

There is an ink blob on the page hiding one of the distances.

Typical Stopping Distances
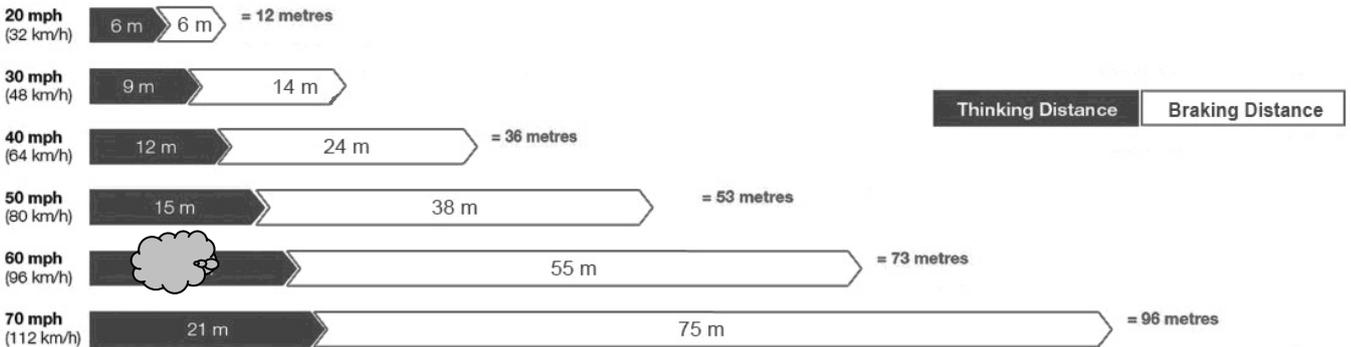
(a) How does Sally know that the stopping distance at 30mph is 23m?

.... **[1]**

(b) What is the thinking distance when a car is travelling at 60mph?

Choose from

16m	**17m**	**18m**	**19m**	**20m**

thinking distance = ... m **[1]**