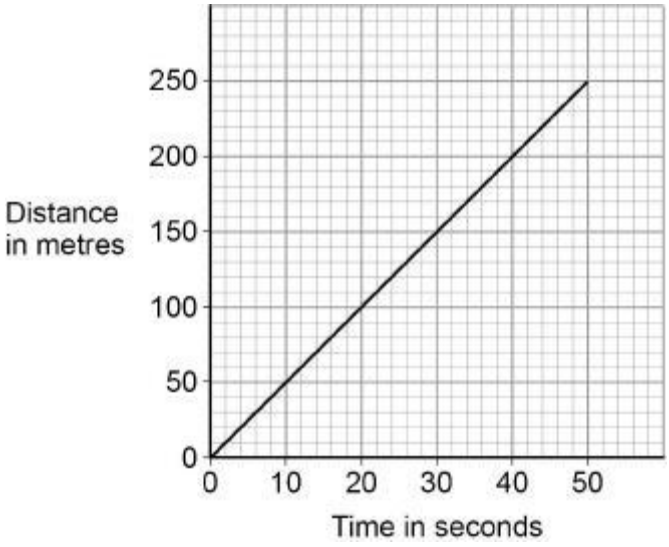
Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: Forces (Low Demand Questions)

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Q1.

The graph below shows a distance-time graph for 50 seconds of a bicycle ride.



(a) The gradient of the distance-time graph gives the speed of the bicycle.

Determine the speed of the bicycle.

_____

_____

_____

_____

Speed = _____ m/s

(2)

(b) Which force acting on the moving bicycle is a non-contact force?

Tick (✓) **one** box.

Air resistance ☐

Friction ☐

Gravitational force ☐

Normal contact force ☐

(1)

(c) The bicycle travels a distance of 250 m

The bicycle exerts a constant horizontal force of 30 N on the ground.

Calculate the work done.

Use the equation:

work done = force × distance

Choose the unit from the box.

J	**kg**	**m**

_____

_____

_____

_____

Work done = _____ Unit _____

(3)

(d) The bicycle travels at a constant speed.

Complete the sentences.

Choose answers from the box.

chemical	**frictional**	**kinetic**
magnetic	**tension**	

As the bicycle moves, work is done against _____ forces.

There is no change in the cyclist's _____ store of energy.

There is a decrease in the cyclist's _____ store of energy.

(3)

(Total 9 marks)

Q2.

Magnetic force is a non-contact force.

(a) Which **two** of these are also non-contact forces?

Tick (✓) **two** boxes.

Air resistance ☐

Electrostatic ☐

Friction ☐

Gravitational ☐

Tension ☐

(2)

(b) **Figure 1** shows a bar magnet.

Figure 1

Which letter shows the position where the magnetic field around the bar magnet is strongest?

Tick (✓) **one** box.

A ☐ **B** ☐ **C** ☐ **D** ☐

(1)

(c) When two magnets are brought close to each other they exert a force on each other.

Describe how two bar magnets can be used to demonstrate a force of attraction and a force of repulsion.

Force of attraction _____

_____

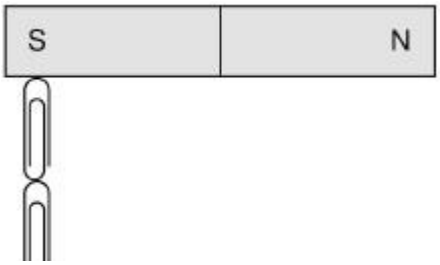
Force of repulsion _____

_____

(2)

Figure 2 shows some paper clips that are attracted to a permanent magnet.

Figure 2



(d) The paperclips become magnetised when they are close to the permanent magnet.

What is the name of this type of magnetism?

Tick (✓) **one** box.

Forced magnetism ☐

Induced magnetism ☐

Strong magnetism ☐

(1)

(e) Label the north and south poles of the two magnetised paper clips in **Figure 2**.

(2)

(Total 8 marks)