Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic : 2_Motion and Forces

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Name of the Student:_____
Max. Marks : 15 Marks **Time : 15 Minutes**

Q1.

Use words from the box to complete the sentences below.

direction	energy	mass	size

(2)

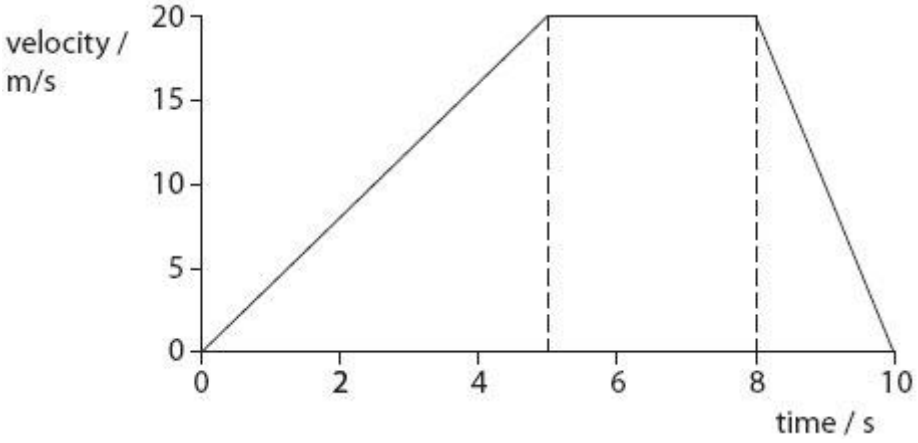
Vectors have size and ..... .

Scalars have only ..... .

(Total for question = 2 marks)

Q2.

The graph shows how the velocity of a small car changes with time.



(i) Use the graph to estimate the velocity of the car at three seconds.

(1)

.....

(ii) Calculate the acceleration of the car when it is speeding up.

(2)

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acceleration = ...m/s^2

(iii) Explain why the units of acceleration are m/s^2.

(2)

.....

.....

.....

.....

(iv) Show that the car travels further at a constant velocity than it does when it is slowing down.

(3)

.....

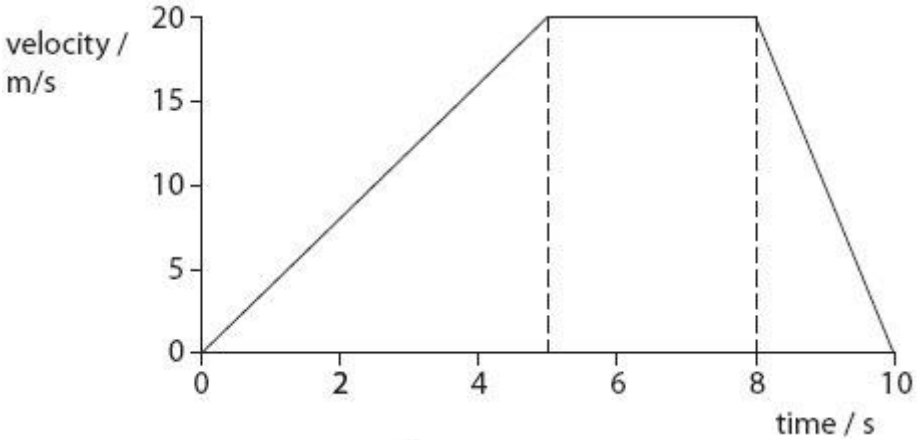
.....

.....

.....

Q3.

The graph shows how the velocity of a small car changes with time.



Complete the sentence by putting a cross (☒) in the box next to your answer.

The resultant force on the car will be zero when the car is

(1)

☒ **A** accelerating

☒ **B** decelerating

☒ **C** changing velocity

☒ **D** moving at a constant velocity

Q4.

Here is the velocity-time graph for a car for the first 20 s of a journey.

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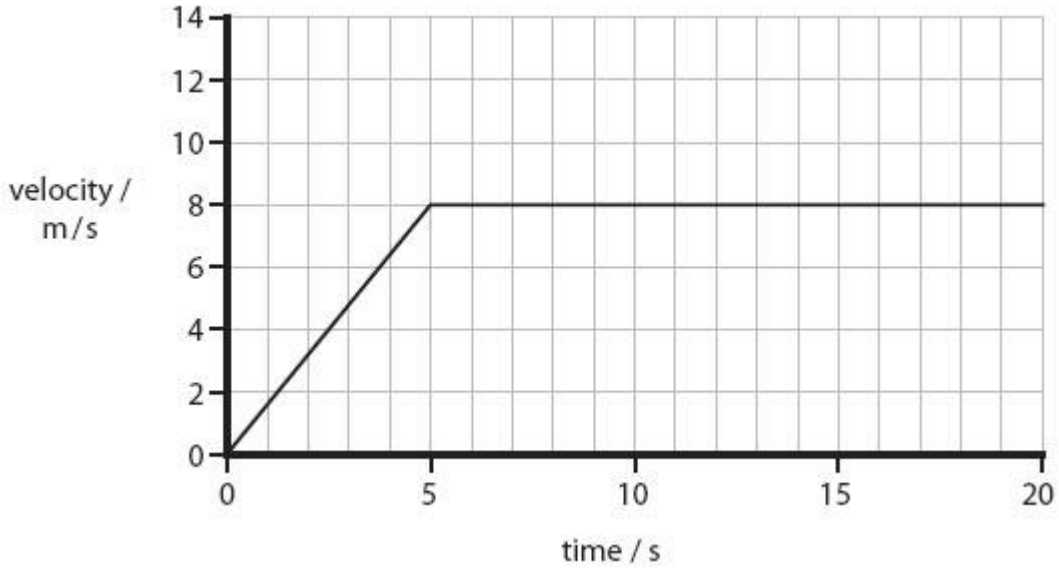

(i) Calculate the change in velocity of the car during the first 5 s.

(1)

.....

(ii) Calculate the acceleration of the car during the first 5 s.

(2)

acceleration = ...m/s^2

(iii) State the size of the resultant force between 10 s and 15 s

(1)

.....

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