Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: GCSE Triple Science_Forces (Standard Demand Questions)

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

Q1.

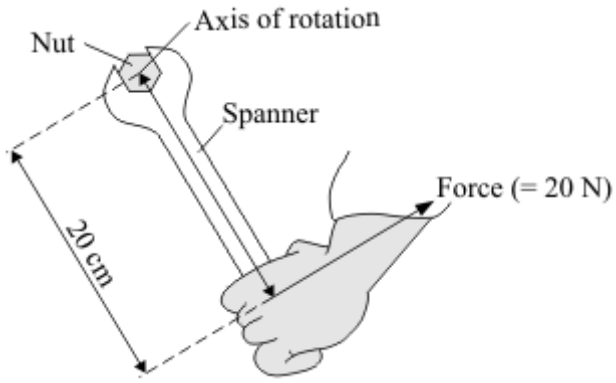
A spanner gives a turning effect to undo a nut.

(a) Complete the sentence.

The turning effect of a force is called the _____ of the force.

(1)

(b) The diagram shows a spanner being used.



Calculate the spanner's turning effect in newton metres.

Show clearly how you work out your answer.

_____

_____

Turning effect = _____ Nm

(2)

(c) Give **two** ways in which you can increase the spanner's turning effect.

1. _____

2. _____

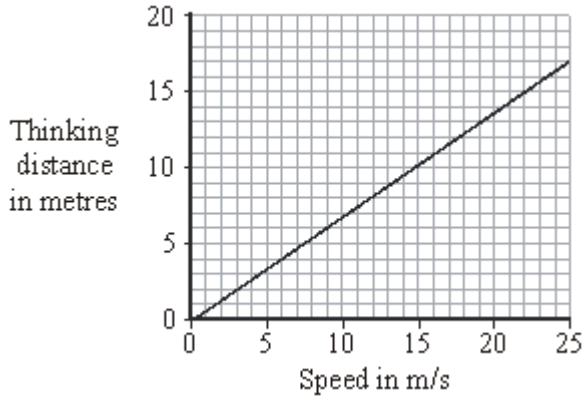
(2)

(Total 5 marks)

Q2.

(a) A car driver takes a short time to react to an emergency before applying the brakes. The distance the car will travel during this time is called the 'thinking distance'.

The graph shows how the thinking distance of a driver depends on the speed of the car.



(i) What is the connection between thinking distance and speed?

_____

(1)

(ii) Many people drive while they are tired.

Draw a new line on the graph to show how thinking distance changes with speed for a tired driver.

(1)

(iii) The graph was drawn using data given in the Highway Code.

Do you think that the data given in the Highway Code is likely to be reliable?

Draw a ring around your answer.

Yes **No** **Maybe**

Give a reason for your answer.

_____

_____

(1)

(b) The distance a car travels once the brakes are applied is called the 'braking distance'.

(i) What is the relationship between thinking distance, braking distance and stopping distance?

_____

(1)

(ii) State **two** factors that could increase the braking distance of a car at a speed of 15 m/s.

1. _____

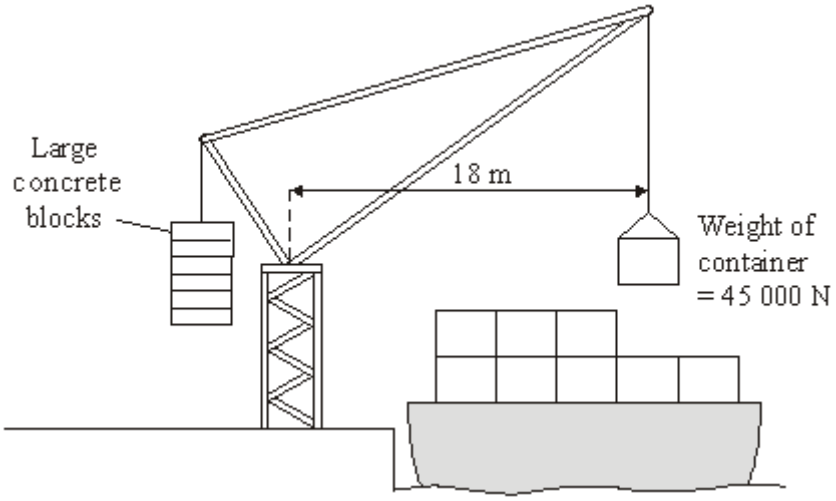
2. _____

(2)

(Total 6 marks)

Q3.

The diagram shows a crane which is loading containers onto a ship.



(a) Calculate the moment of the container which is being loaded.

Show clearly how you work out your answer and give the unit.

_____

_____

Moment of the container = _____

(3)

(b) Suggest and explain the purpose of the large concrete blocks.

_____

_____

_____

_____

_____

(3)

(Total 6 marks)