Effects of Forces

Question Paper

Course	CIE IGCSE Physics
Section	1. Motion, Forces & Energy
Topic	Effects of Forces
Difficulty	Medium

Time Allowed 10

Score /5

Percentage /100

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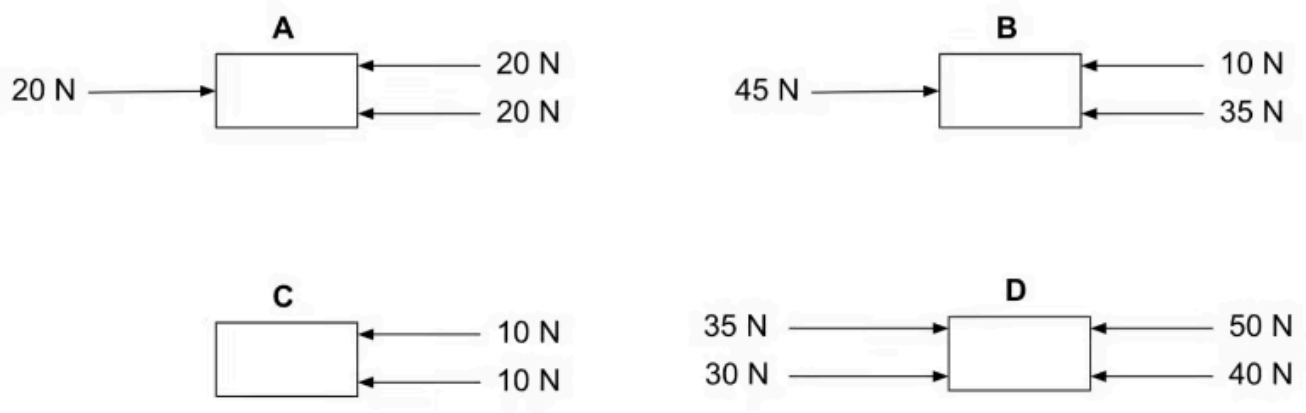
Question 1

The diagram shows four objects, each with the same mass. Each object is acted on by the forces shown.

Which object will experience the largest acceleration to the left?



[1 mark]

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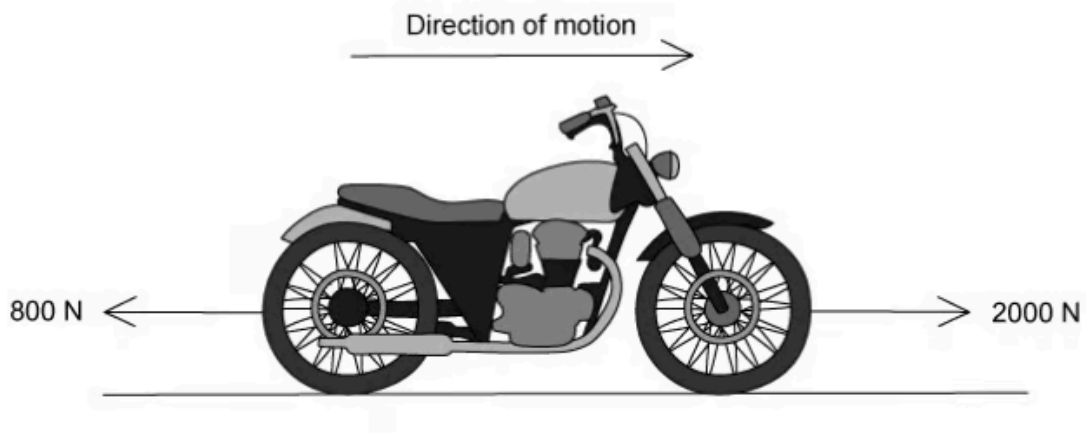
Question 2

A motorbike travels at a constant speed along a flat road. Three horizontal forces act on the motorbike. Two of them are shown in the diagram below.



What is the size and direction of the third force?

A. 2800 N forwards

B. 1200 N backwards

C. 1200 N forwards

D. 2800 N backwards

[1 mark]

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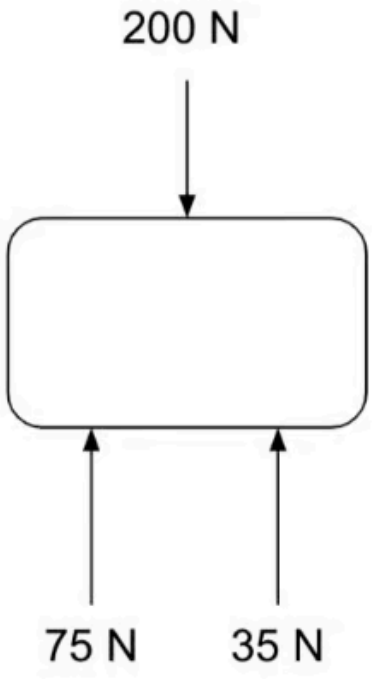
Question 3

An object with three forces acting on it is shown below.



What is the resultant force acting on the object?

A. 90 N downwards.

B. 110 N upwards

C. 200 N downwards

D. 90 N upwards

[1 mark]

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Question 4

Two students were discussing Newton's first law of motion.

Which statement correctly summarises this law?

A. An object will not change its speed or direction unless a resultant force acts upon it

B. An object will not move unless a resultant force acts upon it

C. An object will not speed up unless a resultant force acts upon it

D. An object will not change its direction unless a resultant force acts upon it

[1 mark]

Question 5

Extended tier only

A car slows down as it approaches a traffic light. The car was traveling at 13.5 m/s and it takes 22 s to come to a stop.

The mass of the car is 950 kg.

Calculate the force required to stop the car.

A. 580 N

B. – 580 N

C. 618 N

D. 1548 N

[1 mark]

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