Motion in the Universe

Question paper 3

Level	IGCSE
Subject	Physics
Exam Board	Edexcel IGCSE
Module	Single Award (Paper 2P)
Topic	Astrophysics
Sub-Topic	Motion in the Universe
Booklet	Question paper 3

Time Allowed: **9 minutes**

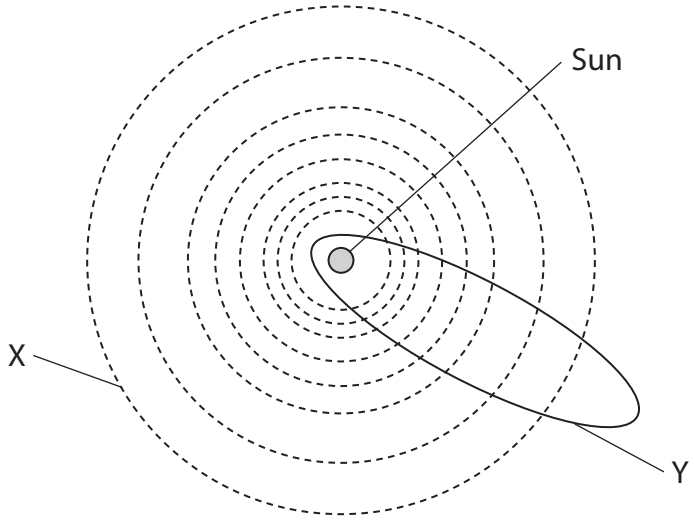
Score: **/7**

Percentage: **/100**

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	'75%	70%	60%	55%	50%	<50%

1 The diagram shows the orbits of some objects in the Solar System.



(a) (i) Path X is the orbit of a

(1)

☒ **A** comet

☒ **B** galaxy

☒ **C** planet

☒ **D** star

(ii) Path Y is the orbit of a

(1)

☒ **A** comet

☒ **B** galaxy

☒ **C** planet

☒ **D** star

(b) The objects are held in orbit by

(1)

☒ **A** electrostatic force

☒ **B** frictional force

☒ **C** gravitational force

☒ **D** magnetic force

(Total for Question 1 = 3 marks)

2 Planets and comets in our Solar System orbit the Sun.

(a) Which force causes planets and comets to orbit the Sun?

(1)

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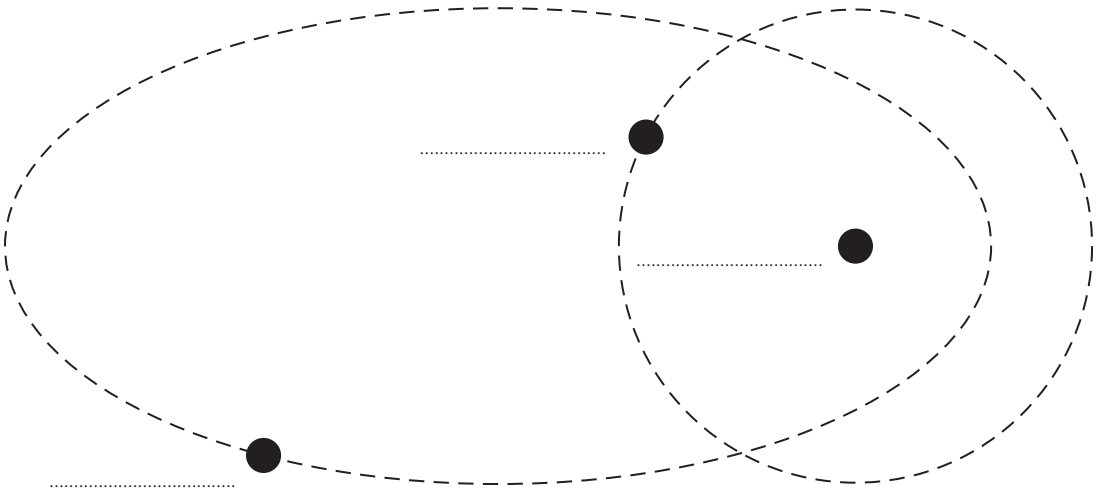
(b) The diagram shows the orbits of a planet and a comet around the Sun.

[not to scale]



(i) On the diagram, label the planet, the comet and the Sun.

(1)

(ii) Explain why it is possible for a planet and a comet in our Solar System to collide.

(2)

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(Total for Question 2 = 4 marks)