

Answer ALL questions.

1 Hubble and Kepler are the names of two space telescopes.



Hubble telescope



Kepler telescope

(a) The Hubble telescope is in a circular orbit around the Earth.

The Kepler telescope is in a circular orbit around the Sun.

(i) The orbit of the Hubble telescope is most like the orbit of a

(1)

- ☐ A comet
- ☐ B moon
- ☐ C planet
- ☐ D star

(ii) The orbit of the Kepler telescope is most like the orbit of a

(1)

- ☐ A comet
- ☐ B moon
- ☐ C planet
- ☐ D star

(iii) The force that keeps space telescopes in orbit is

(1)

- ☐ A friction
- ☐ B gravity
- ☐ C lift
- ☐ D upthrust



(b) Space telescopes are used to study galaxies.

Use words from the box to complete the sentences below.

Each word may be used once, more than once, or not at all.

Milky Way	Solar System	Sun	Universe
------------------	---------------------	------------	-----------------

(i) There are billions of stars in the galaxy called the (1)

(ii) There are billions of galaxies in the (1)

(c) Which of these is nearest to the Earth? (1)

- ☐ A the surface of the Moon
- ☐ B the surface of the Sun
- ☐ C the centre of the Solar System
- ☐ D the centre of the Universe

(d) Gravitational field strength is measured in (1)

- ☐ A kg/N
- ☐ B kg/N²
- ☐ C N/kg
- ☐ D N/kg²

(Total for Question 1 = 7 marks)

