3.8 Space Physics: 10-minute Pack

AQA 8463 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 State one scientific use of a telescope.

(a) State one use of a telescope. **(1)**

(Total for Question 1 is 1 mark)

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2 Here are four objects: Earth, Sun, Moon, Jupiter. Put the objects in order of size from smallest to largest.

(a) Order these from smallest to largest: Earth, Sun, Moon, Jupiter. **(1)**

(Total for Question 2 is 1 mark)

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3 The solar system contains the Sun and many objects that orbit it.

(a) State what force keeps the planets in orbit around the Sun. **(1)**

(b) Define the term satellite. **(1)**

(c) State the difference between a natural satellite and an artificial satellite, giving one example of each. **(2)**

(Total for Question 3 is 4 marks)

4 The Sun is currently a stable, average-mass star.

(a) State the term used to describe a star, like the Sun, during the long stable period of its life cycle. **(1)**

(b) State the name of the cloud of dust and gas from which a star forms. **(1)**

(c) Name the force that causes the dust and gas in a nebula to be pulled together to form a protostar. **(1)**

(Total for Question 4 is 3 marks)

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Mark scheme · 3.8 Space Physics: 10-minute Pack

Question 1

(a) any one use, e.g. observing distant stars and galaxies, measuring brightness of objects, detecting planets, analysing spectra, oe **B1**

(a) Answer: For observing distant stars and galaxies (or detecting planets, measuring brightness or analysing spectra).

Question 2

(a) Moon, Earth, Jupiter, Sun (from smallest to largest) cao **B1**

(a) Answer: Moon, Earth, Jupiter, Sun.

Question 3

(a) gravitational force (gravity) **B1**

(a) Answer: Gravitational force.

(b) an object that orbits a larger object, oe **B1**

(b) Answer: An object that orbits a larger object.

(c) a natural satellite occurs naturally, e.g. the Moon orbiting the Earth **B1**

(c) an artificial satellite is human-made, e.g. a communications or weather satellite **B1**

(c) Answer: A natural satellite (e.g. the Moon) occurs naturally; an artificial satellite (e.g. a communications satellite) is human-made.

Question 4

(a) main sequence (star) **B1**

(a) Answer: Main sequence star.

(b) nebula **B1**

(b) Answer: Nebula.

(c) gravity (gravitational force/attraction) **B1**

(c) Answer: Gravity.

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