

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

Question Number	Answer	Additional guidance	Mark
(i)	Any one from:- to view distant objects /things far away (1) looking at planets /stars / space/ galaxies (1) bird watching (1)	accept magnify distant objects accept other named astronomical objects	(1) AO2

Question Number	Answer	Mark
(ii)	C P and Q are both converging A is incorrect the lens Q is not diverging B is incorrect the lens P is not diverging D is incorrect neither lens is diverging	(1) AO3

Question Number	Answer	Additional guidance	Mark
(iii)	substitution (1) (power =) $\frac{1}{0.14}$ evaluation (1) 7.1 (D)	7.14(28...) allow 7 award 1 mark for 7.1 to any other power of ten award 1 mark for correct answer as a fraction award full marks for the correct answer with no working	(2) AO2

Q2.

Question number	Answer	Additional guidance	Mark
	gravitational attraction	gravity gravitational field /force	1 AO1.1

Q3.

	Answer	Additional guidance	Mark
(i)	gravitational attraction / gravitational force (causing collapse) (1)	allow gravity ignore weight ignore gpe ignore gravitational energy	(1) AO1

	Answer	Additional guidance	Mark
(ii)	An explanation linking: (gravity causing) increase in temperature (1) (until hot enough for) fusion (1) (until) balance (between gravity and fusion/thermal) (1)	 allow increase in pressure/density hydrogen to form helium allow nuclear reactions ignore fission allow equilibrium / counteracts	(3) AO1

Q4.

Question Number	Answer	Acceptable answers	Mark
(a)(i)	In ANY order smaller than the object (1) upside down (1)		(2)

Question Number	Answer	Acceptable answers	Mark
(a)(ii)	The idea that it can be captured on a screen	appears where the rays (of light) meet ignore references to reflection	(1)

Question Number	Answer	Acceptable answers	Mark
(a)(iii)	A (10)		(1)

Question Number	Answer	Acceptable answers	Mark
(a)(iv)	A (refraction by a converging lens)		(1)

Question Number	Answer	Acceptable answers	Mark
(b)	image was larger/magnified (compared with naked eye).	better {information / detail} / see {further / clearer /further away} / fainter /more objects / zoom in OWTTE	(1)

Question Number	Answer	Acceptable answers	Mark
(c)	<p>Description to include:</p> <p>Geo = Earth at the centre (of the Solar System) (1)</p> <p>Helio = Sun at the centre (of the Solar System) (1)</p>	<p>"everything goes around the Earth / us"</p> <p>the Sun goes around the Earth</p> <p>"everything goes around the Sun"</p> <p>we revolve around the Sun</p> <p>Allow answers in diagram form</p> <p>Allow 1 mark for both descriptions the wrong way round</p>	(2)