

Question number	Answer	Notes	Marks
7 (a)	<p>any five from MP1-MP7:</p> <p>apparatus: MP1. method of creating thin beam of light; MP2. protractor;</p> <p>method: MP3. draw round the block; MP4. shine light into the block at an angle to the normal; MP5. mark incident and refracted rays; MP6. measure angles from the normal;</p> <p>MP7. repeat for different angles of incidence;</p> <p>PLUS</p> <p>MP8. graph of $\sin(i)$ and $\sin(r)$ with n found from gradient</p>	<p>allow marking points from diagram</p> <p>e.g. laser, ray box etc. ignore torch</p> <p>however expressed</p> <p>allow simple use of $n = \sin(i) / \sin(r)$</p>	6
(b)	<p>optical fibres; named prismatic use e.g. cats eye reflector, binoculars, periscope etc;</p>		2

Total for Question 7 = 8 marks