

Question Number	Answer	Mark
<b>16(a)</b>	<p>Unpolarised light vibrates/oscillates in all planes (1)  Plane polarised light vibrates/oscillates in one plane (1)  Including the direction of wave travel (1)</p> <p><b>OR</b></p> <p>Unpolarised light vibrates/oscillates in all directions (1)  Plane polarised light vibrates/oscillates in one direction (1)  Perpendicular to the direction of wave travel (1)</p>	<b>3</b>
<b>16(b)</b>	<p>Number(s) added to both axes (1)  Single maximum at <math>0^\circ</math> <b>and</b> single minimum at <math>90^\circ</math> (1)  Intensity at <math>0^\circ \leq 0.5 \text{ W m}^{-2}</math> (but not 0) (1)</p> <p>(MP3 cannot be awarded if the graph has a positive gradient)</p> <p><u>Examples of graphs</u>  (These appear at the end of the mark scheme)</p>	<b>3</b>
<b>16(c)</b>	<p>(Polarising) filters at <math>90^\circ</math> to each other do not allow light to pass through (1)  Rotation of plane of polarisation (due to stress) allows light to pass (1)  Darker areas represent less stress <b>Or</b> brighter areas represent greater stress (1)</p>	<b>3</b>
	<b>Total for question 16</b>	<b>9</b>