

Q8.

Question Number	Answer	Additional Guidance	Mark
(i)	<p>The only correct answer is B (bipolar cell, rod cell, cone cell)</p> <p>A is not correct because X is a rod cell and Y is a cone cell</p> <p>C is not correct because W is a bipolar cell, X is a rod cell and Y is a cone cell</p> <p>D is not correct because W is a bipolar cell</p>		(1)

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(ii)	an arrow that is directed from left to right		(1)

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(iii)	<p>An explanation that makes reference to three of the following:</p> <ul style="list-style-type: none"> • {many / more / 3} {rods / cell X} connect to {cell W / bipolar cell} / one {cone / cell Y} connects to {cell Z / bipolar cell} (1) • therefore (spatial) summation occurs / retinal convergence / add together several generator potentials (1) • so threshold potential / depolarisation occurs in {cell W / bipolar cell} (1) • rods have more pigment than cones / rhodopsin is very sensitive to light (1) 	<p>Accept converse for cones / cell Y</p> <p>Accept converse for cell Z</p> <p>Accept iodopsin (in cones / cell Y) is less sensitive to light</p>	(3)