

**Eduqas Physics GCSE**  
**Topic 6.1: Frequency range of the**  
**spectrum**  
**Mark Schemes for Questions by topic**

1.

Question Number	Answer	Acceptable answers	Mark
<b>2(a)(i)</b>	X-ray	X	<b>(1)</b>

Question Number	Answer	Acceptable answers	Mark
<b>2(a)(ii)</b>	(visible) light	visible (waves)	<b>(1)</b>

Question Number	Answer	Acceptable answers	Mark
<b>2(a)(iii)</b>	radio (waves)		<b>(1)</b>

Question Number	Answer	Acceptable answers	Mark
<b>2(a)(iv)</b>	gamma / X-rays / ultraviolet	X / UV	<b>(1)</b>

Question Number	Answer	Acceptable answers	Mark
<b>2(b)</b>	an explanation linking: <ul style="list-style-type: none"><li>• travel with same speed (1)</li><li>• in a vacuum / in space (1)</li></ul>	They travel at the speed of light / same numerical speed for all	<b>(2)</b>

2.

Question Number	Answer	Acceptable answers	Mark
<b>3(a)(i)</b>	C travel with the same speeds in a vacuum, have different frequencies		<b>(1)</b>

3.

Question Number	Answer	Acceptable answers	Mark
5(a)(i)	<input checked="" type="checkbox"/> <b>B</b> seven		<b>(1)</b>

Question Number	Answer	Acceptable answers	Mark
5(a)(ii)	<input checked="" type="checkbox"/> <b>C</b> red, orange, yellow		<b>(1)</b>

4.

(a) radio

1

5.

(a) decreases

*correct order only*

1

increases

1

6.

(a) (i) frequency

1

wavelength

1

(ii)  $10^{-16}$  to  $10^2$

1

(b)  $2.0 \times 10^5$

*correct substitution of  
 $3.0 \times 10^5 / 1500$  gains 1 mark*

2

Hz

1