

Question number	Answer	Notes	Marks
1 (a)	<p>cooking – micro(waves) OR infrared (waves);</p> <p>treating cancer – ultraviolet OR x-rays OR gamma (rays);</p> <p>identifying broken bones - x-rays;</p>	if more than one example given for each use then reject mark if any incorrect	3
(b)	C - the same speed;		1
(c) (i)	<p>drawn ray shows refraction in the correct direction (downwards) at both surfaces;</p> <p>drawn ray is above yellow ray and diverges from it (if ray had entered at the original point);</p>	<p>judge by eye ignore arrows and labels dependent on previous</p> <p>allow if ray drawn enters parallel to original ray</p>	2
(ii)	A- black;		1

Total 7 marks