

Question	Answer	Marks	AO Element	Notes	Guidance
1	enlarged <b>AND</b> virtual <b>AND</b> upright underlined <b>AND</b> no wrong answer underlined (2)	2		one mark for two correct answers underlined <b>AND</b> no more than one wrong answer underlined	
2(a)(i)	both principal focuses marked at points 5.0 cm from the optical centre	1			
2(a)(ii)	any <b>two</b> construction lines from: (2) - line from top of I towards far principal focus and traced back from lens horizontally - line from top of I to (and through) centre of lens - horizontal line from top of I to lens and traced back to near principal focus  O marked with top at intersection (1)	3			
2(b)	2.7 cm $\geq$ distance $\geq$ 3.1 cm	1			

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3	(point) where incident parallel rays meet after passing through lens <b>OR</b> origin of rays that emerge parallel after passing through lens (1)  on principal axis <b>OR</b> use of term paraxial <b>OR</b> centre line (1)	2			
4(a)	one correct ray (1)  second correct ray (1)  rays intersect above axis to left of A <b>AND</b> object drawn from axis to intersection (1)	3			
4(b)	AC (1)  CB (1)	2			
5	object closer to lens than one focal length	1			
6	(image) enlarged/magnified <b>AND</b> upright/goes up <b>AND</b> virtual (2)	2		one mark if any <b>one</b> of the three properties mentioned	
[Total: 17]					