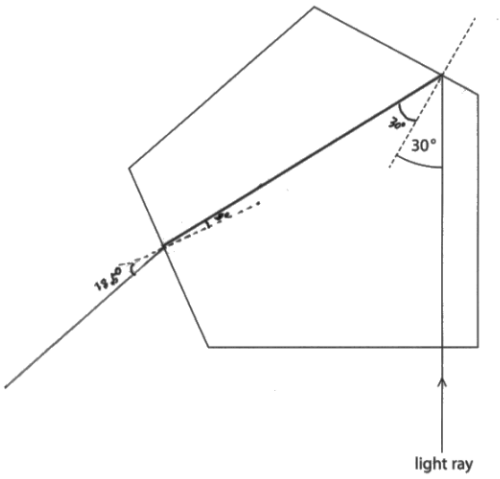
Question number	Answer	Notes	Marks
6 (a)	correct symbol for voltmeter in parallel with any component; voltmeter drawn in parallel with the LDR;		2
(b) (i)	$V = I \times R$;	allow any re-arrangement allow word equation condone 'i' for current reject 'c' or 'C' for current	1
(ii)	substitution; evaluation; e.g. $V = 7.8 \times 10^{-3} \times 73$ $V = 0.57$ (V)	POT error gives 1 mark penalty allow 0.5694 (V) for both marks '0.6 (V)' scores 1 mark	2
(iii)	idea that voltages of two resistors in series adds up to supply voltage; calculation of correct voltage; e.g. $V_{cell} = 1.5 = V_{LDR} + V_{resistor}$ $V_{LDR} = 1.5 - 0.56(94)$ $V_{LDR} = 0.93$ (V)	 allow ecf from 6(c)(ii) allow 0.9306 (V) for both marks	2
(c) (i)	resistance decreases (with increasing L.I); non-linear/decreasing rate/curve;		2
(ii)	increases;		1
(iii)	larger current means larger voltage across fixed resistor; total voltage remains constant;		2

Total for Question 6 = 12 marks

Question number	Answer	Notes	Marks
10 (a) (i)	n =1/sin(c);	accept any rearrangement or word equation	1
(ii)	substitution; evaluation; e.g. n = 1/sin(26) n = 2.3	 allow 2.28…	2
(iii)	correct TIR at first boundary; refraction at boundary at 7 o'clock; refraction away from the normal at exit point;  	 allow ECF for incorrect TIR and correct subsequent boundaries.	3