Question number	Answer	Notes	Marks
10 (a) (i)	thermistor labelled correctly	ACCEPT: ringed thermistor	1
(ii)	correct voltmeter symbol ; connected in parallel with thermistor ;	REJECT: connected in parallel with battery	2
(b) (i)	voltage = current x resistance	Or equivalent – resistance = voltage ÷ current V = I x R	1
(ii)	Substitution 12 = 0.002 x R; Calculation R = 12 / 0.002 = 6000 (Ω);	If (i) is blank, but correct equation written in (ii), then credit. 12 = 2 x R = 6 (Ω) gets 1 mark Bald answer 2 marks 6 kΩ gets 2 marks	2
(iii)	Suitable size chosen (>50% of grid used); Axes labelled with quantities and units (either way around); Plotting to nearest half square (minus one for each plotting error);; Curved line of best fit acceptable;	ACCEPT: ° OR C REJECT: joining the dots Bar chart for 4 max	5
(iv)	current increases with temperature ; non-linear relationship OWTTE ;	ACCEPT: positive correlation	2
(v)	Any **two** of student is wrong ; because current increases with temp (for constant voltage) ; so resistance decrease with temp ;	“student is correct” scores 0 marks Because it is an ntc thermistor for 1 mark ACCEPT: relevant use of figures for resistance from graph/table	2

Total 15 marks