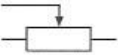
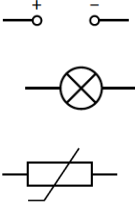


Multiple Choice Answers

Q28: B

Q29: C

7(a)	
7(b)(i)	1.5 V $V_{\text{out}} / V_R = R_{\text{out}} / R$ OR $V_R = 3 V_{\text{out}}$
7(b)(ii)	0.51 C $I = Q / t$ OR $(Q =) It$ OR $1.7 \times 10^{-3} \times 300$

7(a)	work done in passing charge <u>through / across</u> a component work done per unit charge
7(b)(i)	(definition of emf:) $E = W / Q$
7(b)(ii)	270 J $W = EQ$ OR 9.0×30
7(c)(i)	correct symbols for d.c. power supply, a lamp and a thermistor 
7(c)(ii)	three components in a complete series circuit resistance (of thermistor) decreases (when temperature increases) resistance <u>of circuit</u> decreases OR greater current (in lamp so brightness of lamp increases) OR greater p.d. across <u>lamp</u> (so brightness of lamp increases)

7(a)	8 (cells)
7(b)(i)	$(12 / 2.4 =) 5.0 \Omega$ $R = V / I$ in any form
7(b)(ii)	(Resistance of Q = $5 - 1.5$) = 3.5 Ω $1 / R = 1 / R_1 + 1 / R_2$ OR $R = R_1 R_2 / (R_1 + R_2)$

7(c)(i)	correct voltmeter symbol connected correctly across both lamps
7(c)(ii)	4.3 W ($P =$) IV in any form OR 1.2×3.6 3.6 V OR 1.2 A