Copper Refining: Answers

1. (a) Positive electrode $Cu \rightarrow Cu^{2+} + 2e^-$ [1]

Negative electrode $Cu^{2+} + 2e^- \rightarrow Cu$ [1]

(b) (i) Quantity of electricity = 20 000 x 24 x 60 x 60 C [1]

$= \frac{20{,}000 \times 24 \times 60 \times 60}{96{,}000}$ F [1]

= 18 000 F [1]

(ii) 2 F produces 64 g of copper [1]

18,000 F produces $\frac{64 \times 18{,}000}{2}$ g [1]

= 576 kg [1]