

6 Distinguish between *melting* and *evaporation*.

melting:

.....

.....

evaporation:

.....

.....

[4]

7 (a) A cell with internal resistance supplies a current. Explain why the terminal potential difference (p.d.) is less than the electromotive force (e.m.f.) of the cell.

.....

.....

..... [1]

(b) A battery of e.m.f. 12 V and internal resistance $0.50\ \Omega$ is connected to a variable resistor X and a resistor Y of constant resistance, as shown in Fig. 7.1.

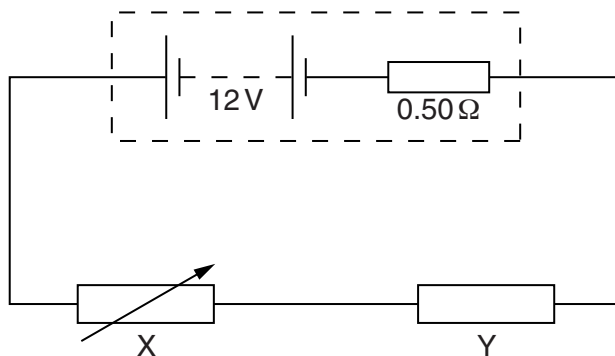


Fig. 7.1

The resistance R of X is increased from $2.0\ \Omega$ to $16\ \Omega$. The variation with R of the current I in the circuit is shown in Fig. 7.2.