

**21** Which statement about electromotive force (e.m.f.) or potential difference (p.d.) is correct?

- A** The e.m.f. of a cell is the energy dissipated in its internal resistance per unit of charge passing through it.
- B** The e.m.f. of a cell is equal to the energy converted into electrical energy from other forms per unit of charge which passes through it.
- C** The p.d. across a resistor is the total energy dissipated in it over a period of time per unit current passing through it.
- D** The p.d. across the internal resistance of a cell is equal to the energy needed to move a unit of charge through the cell.

**22** A cell  $E$  and a galvanometer are to be connected into a potentiometer circuit by terminals X and Y.