

**14.5** Hole is

- (a) an anti-particle of electron.
- (b) a vacancy created when an electron leaves a covalent bond.
- (c) absence of free electrons.
- (d) an artificially created particle.

Q. Ans: (b)

Sol<sup>n</sup>: Atoms of similar or different types bind semiconductor atoms by covalent bond. Due to thermal agitation, electron leaves its location and becomes independent, this leads to creation of void in bond (covalent), which is known as hole.