Answer 7:- An n-type semiconductor is one the has donar dopants deposited into crystal lattice. Here electrons are called the majority carriers and holes are the minority carriers. One of the most common examples of this is Silicon or Germanium from group IV in the periodic table. being doped with phosphorous or Arsenic atoms (from group V) both of which has one extra valence electron per atom. the dopant able atom is enter the lattice substitute in for one Si atom. which bound to four others. and release its extra, loosely bounded valence electron into the Si lattice.

N-type charge carriers are electrons and electrons are having higher mobility than that of holes this is because electrons are free carriers and are present in the conduction band where they are not bounded but holes are basically the absence of electrons are in valence band and not free. (as the movement of electrons which are participating in the covalent bond with the atom. So n-type semiconductor have higher conductivity.