

- Q.1 The electron in a hydrogen atom in the ground state absorbs energy equal to 12.1 eV and gets elevated to the highest possible excited state. What will be change in the angular momentum of the electron? (h = Planck's constant)
- (a) h/π (b) $2h/\pi$
(c) $3h/\pi$ (d) $4h/\pi$
- Q.2 If the ionisation potential of hydrogen atom is 13.6 electron volt, the energy required to remove an electron from the second orbit of hydrogen atom is
- (a) 0.54 eV (b) 0.85 eV
(c) 1.51 eV (d) 3.4 eV
- Q.3 The energy of an electron in first Bohr orbit of H-atom is -13.6 eV. The possible energy value of electron in the excited state of Li^{2+} is
- (a) -122.4 eV (b) 30.6 eV
(c) -30.6 eV (d) 13.6 eV
- Q.4 In Hydrogen atom, energy of first excited state is -3.4 eV. Then find out KE of same orbit of Hydrogen atom. [CBSE AIPMT 2002]
- (a) $+3.4$ eV (b) $+6.8$ eV
(c) -13.6 eV (d) $+13.6$ eV
- Q.5 Taking the Bohr radius as $a_0 = 53$ pm, the radius of Li^{++} ion in its ground state, on the basis of Bohr's model, will be about
- (a) 53 pm (b) 27 pm
(c) 18 pm (d) 13 pm