

- 28** The figure shows the four lowest energy levels of a hydrogen atom. It is known that the wavelength of visible light ranges from 400 nm to 700 nm.

n = 4 ————— —0.85 eV

n = 3 ————— —1.53 eV

n = 2 ————— —3.40 eV

n = 1 ————— —13.6 eV

If electrons having kinetic energy of 12.5 eV are used to bombard a large number of hydrogen atoms at room temperature, how many spectral lines in the visible region can be obtained subsequently?

A 0

B 1

C 2

D 3