

27. Which of the following is the energy of a possible excited state of a possible excited state of hydrogen? (2015)

- 1) +13.6 eV 2) -6.89 eV
3) -3.4 eV 4) +6.8 eV

Ans.

$$(3) E = -13.6 \frac{Z^2}{n^2} \text{ eV}$$

$$n = 2 (\text{First Excited state}) \Rightarrow E = -3.4 \text{ eV}$$