

**1. If the kinetic energy of an electron is increased four times, the wavelength of the de-Broglie wave associated with it would become**

(1) Two times

(2) Half

(3) One fourth

(4) Four times

08.00

Q1.  $\lambda = \frac{h}{p}$

09.00

$$K = \frac{p^2}{2m}$$

$\Rightarrow$  if  $K$  increases 4 times  
 $p$  increases 2 times

10.00

$\therefore \lambda$  become half.

11.00