1. True

2. False

3. True

4. False

5. True

6. True

7.

8.

9.

10. Constructive and destructive interferences of waves

11. Electron exhibits the wave property of interferences

12. $p = 2.5\text{kg m/s}$
$\lambda = \frac{6.63 \times 10^{-34}}{25 \times 10^{-1}}$
$= 2.65 \times 10^{-34}$

13. $p = 5.4 \times 10^{-25}\text{kg m/s}$
$\lambda = \frac{6.63 \times 10^{-34}}{5.4 \times 10^{-25}}$
$= 1.2 \times 10^{-9}$

14. the energy of the electron is much higher than energy of yhe cricket ball

15. $\lambda = 6.5 \times 10^{-7}\text{m}$
$= \frac{6.63 \times 10^{-34}}{6.5 \times 10^{-7}}$
$= 1.02 \times 10^{-27}$

16. $\lambda = 6 \times 10^{-2}\text{m}$
$= \frac{6.63 \times 10^{-34}}{6 \times 10^{-2}}$
$= 1.1 \times 10^{-32}$

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