11. rate of increase $(R) = 2.5\%$ per hour

time $(n) = 2$ hours

Initial count $(P_I) = 506000$

count at end of 2 hours

$$= P_I \left(1 + \frac{R}{100}\right)^n$$

$$= 506000 \left(1 + \frac{2.5}{100}\right)^2$$

$$= 506000 \left(\frac{102.5}{100}\right)^2$$

$$= \cancel{506}^{253}\cancel{000} \times \frac{1025}{\cancel{1000}_{1}} \times \frac{\cancel{1025}^{205}}{\cancel{100}\not{0}}$$

$$= 531616.25$$

$$= 531616$$

12. Initial value of scooter $(I_V) = ₹ 42000$

rate of depriciation $(R) = 8\%$ p.a.

value of scooter after 1 year

$$= I_V \left(1 - \frac{R}{100}\right)^n$$

NCERT Solutions by Dev Anoop (Bathinda)
Ex. 8.3, Class VIII

$$= 42000 \left(1 - \frac{8}{100}\right)^1$$

$$= 42000 \times \frac{92}{\cancel{100}_{1}}$$

$$= ₹ 38640$$