1. $\Rightarrow P\left[\left\{1+\frac{10}{100}\right\}^2-1\right] = 2525$

$\Rightarrow P\left[\left\{\frac{121}{100}\right\}-1\right] = 525$

$\Rightarrow P\left[\frac{21}{100}\right] = 525$

$\Rightarrow P = \frac{525 \times 100}{21} = 2500.$

Now,

$\Rightarrow SP = \frac{2500 \times (2\times 2) \times 10}{100 \times 20}$

$= ₹500$

2. $CI = 4000\left[\left\{1+\frac{10}{100}\right\}^2-1\right]$

$= 4000\left[\frac{121}{100}-1\right]$

$= \frac{4000 \times 21}{100}$

$= ₹840.$

$\Rightarrow SI = \frac{840}{2} = ₹420$

ATQ, 2

$\rightarrow \frac{P \times 8 \times 3}{100} = 420$

$\rightarrow P = \frac{420 \times 25}{2} = ₹1750$

3. $R = \frac{SI \times 100}{PT}$

* Given, $\frac{3}{5}$

$\rightarrow A = P + \frac{40}{100} \times P$

$= P + \frac{2P}{5}$

$\rightarrow SI = P + \frac{2P}{5} - P$

$= \frac{2P}{5}$

$\therefore R = \frac{2P \times 100}{5 \times P \times 2}$

$= 10\%$

$CI = 12000\left[\left\{1+\frac{10}{100}\right\}^3-1\right]$

$= 12000\left[\left\{\frac{11}{10}\right\}^3-1\right]$

$= 12000\left[\frac{1331}{1000}-1\right]$

$= 12000 \times \frac{331}{1000}$

$= ₹3972$