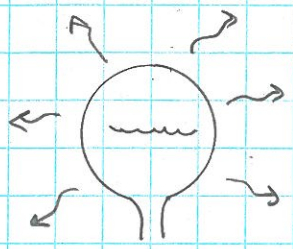

Light Power:

$P = 5\,W$

$\lambda = 600\,nm$

Energy of individual photon:

$$E = hf = \frac{hc}{\lambda} = 3.315 \times 10^{-19}\ J.$$

Now, $P = 5\,W = 5\,\frac{J}{s}$

So,

Rate of photon emission $R = \frac{P}{E} = 1.508 \times 10^{19}\ \frac{photon}{s}$