7. For a coil positioned in a plane perpendicular to the magnetic field the flux is the product of the magnetic field times the area of the loop

$$
\begin{aligned}
& \phi=\mathrm{B} \mathrm{~A} \\
& \phi=(0.4 \mathrm{~T})\left(0.08 \mathrm{~m}^{2}\right)=0.032 \mathrm{~T} \mathrm{~m}^{2}
\end{aligned}
$$

