(a) The given mass density is

$$\rho(\vec{r}) = A\,\delta(r-R)\,\delta(\cos\theta)$$

Integrate over all space to get the total mass M

$$\begin{aligned}
M &= \int\int\int \rho(\vec{r}) d\tau \\
&= \int\int\int A\,\delta(r-R)\,\delta(\cos\theta)\,r^2\,\sin\theta\,dr\,d\theta\,d\phi \\
&= A\int_{r=0}^{\infty}\delta(r-R)\,r^2\,dr \quad \int_{\theta=0}^{\pi}\delta(\cos\theta)\,\sin\theta\,d\theta \quad \int_{\phi=0}^{2\pi} d\phi \\
&= A\cdot R^2\cdot 1\cdot 2\pi \\
&= 2\pi A R^2 \qquad \Rightarrow \qquad \boxed{A = \frac{M}{2\pi R^2}}
\end{aligned}$$

(b) The given charge density is

$$\rho(\vec{r}) = \frac{B}{r^2}\,\delta(\cos\theta - 1)$$

for $r < L$ and is zero otherwise. Integrate over all space to get the total charge Q

$$\begin{aligned}
Q &= \int\int\int \frac{B}{r^2}\,\delta(\cos\theta-1)\,r^2\,\sin\theta\,dr\,d\theta\,d\phi \\
&= B\int_{r=0}^{L} dr \quad \int_{\theta=0}^{\pi}\delta(\cos\theta-1)\,\sin\theta\,d\theta \quad \int_{\phi=0}^{2\pi} d\phi \\
&= B\cdot L\cdot 1\cdot 2\pi \\
&= 2\pi BL \qquad \Rightarrow \qquad \boxed{B = \frac{Q}{2\pi L}}
\end{aligned}$$