39. $\dot{P} = (k + b\cos 2\pi t)P$, $k, b > 0$

$P^{-1}\,dP = (k + b\cos 2\pi t)\,dt \Rightarrow \ln(P) = kt + \frac{b\sin(2\pi t)}{2\pi} + C$

$\Rightarrow P(t) = e^{C} e^{kt} e^{\frac{b}{2\pi}\sin(2\pi t)}$

$P(0) = e^{C} \Rightarrow P(t) = P_0 e^{kt} e^{\frac{b}{2\pi}\sin(2\pi t)}$