# 略解

**演習問題１**：$\psi(x,t) = \sum_{n=1}^{\infty} \frac{4h}{n\pi} \sin\frac{n\pi}{2} \sin\frac{n\pi}{10} \sin\frac{n\pi x}{L} \cos\frac{n\pi v t}{L}$

**演習問題２**：

**(i)** $\phi_n(t) = \frac{F_0}{\omega_n^3}\left(\omega_n - a\omega_n t - \omega_n \cos\omega_n t + a\sin\omega_n t\right)$

**(ii)** $\phi_n(t) = \frac{F_0}{\omega_n(a^2+\omega_n^2)}\left(\omega_n e^{-at} - \omega_n \cos\omega_n t + a\sin\omega_n t\right)$