

# Antenna Length v/s Medium of Transmission

## Solution:

**The correct answer is e.)**

Since the wavelength of propagation through water is less than that of propagation through air, we would require a much shorter dipole antenna for reception in water. The difference between the half wavelengths in air and water is significant, and hence, the light bulb on the longer dipole will only glow in air, while the light bulb on the shorter dipole will only glow in water.