

ASSIGNMENT 2

WAVES, MOTION AND ACOUSTICS

1. What is damping motion? Derive the differential equation and general solution of damped harmonic motion.
2. Define resonance in an oscillating system.
3. Differentiate Free and Forced oscillations.
4. What is Damped and Undamped vibrations? Derive the differential equation and general solution of damped harmonic motion.
5. Define :Damped Harmonic Motion.
6. Find the acceleration of particle performing simple harmonic motion (SHM) when it is at 0.6 m from its mean position. The time period of SHM is 0.05 sec. Also calculate maximum velocity if the amplitude of SHM is 2 m.