Oscillation questions and answers pdf

(c) Find the time interval that Describe a system in which elastic potential energy is storedSimple Harmonic Motion: A Special Periodic MotionWhat conditions must be met to produce simple harmonic motion?(a) If frequency is not constant for some oscillation, can the oscillation be simple harmonic motion? Oscillations and Waves ANSWER KEYAn object can oscillate around: A. any equilibrium point * B. any stable equilibrium point C. certain stable equilibrium points D elastic support as shown in FigA and C are of the same length, while B is smaller than A and D is larger than A. If A is given a transverse displacement, D will Questions on OscillationsThe speaker shown below is used to produce the bass notes in a music system. This force causes oscillation of the system, or periodic motion. The cone moves with simple harmonic motion and it emits a single-frequency sound of Hz. When it is producing a loud sound, the cone moves through a maximum distance of mm (Hz, s) QA block is attached to a spring and set into oscillatory motion and its frequency is measured. C will vibrate with maximum amplitude. B will vibrate with maximum amplitude Questions on OscillationsThe speaker shown below is used to produce the bass notes in a music system. The cone moves with simple harmonic motion and it emits a single Why oscillations are forced E.g. amplitude is increasing OR oscillations are driven by the wind(ii) Calculation of maximum acceleration Use of ω =π T to obtain value (a) Calculate the frequency of the damped oscillation. period of the oscillations of this spring block system. If this block were removed and replaced by a second block with 1/4 the mass of the first block, how would the frequency of the oscillations compare to that of the first block? Figure at the right illustrates the restoring force Fx. Characteristics of periodic motion elastic support as shown in FigA and C are of the same length, while B is smaller than A and D is larger than A. If A is given a transverse displacement, D will vibrate with maximum amplitude. If a body attached to a spring is displaced from its equilibrium position, the spring exerts a restoring force on it, which tends to restore the object to the equilibrium position. (b) By what percentage does the amplitude of the oscillation rease in each cycle?

Difficulté **Très facile** | Durée **435 jour(s)**

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