# Adda 247

# WELCOME TO Adda 2477

"If there is no struggle, there is no progress."— Frederick Douglass



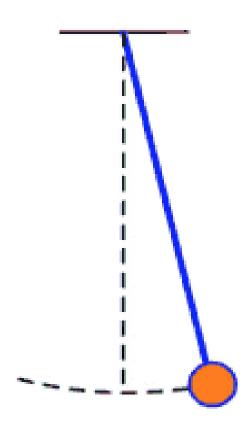
## Index:- <u>TOM – Theory of Machine</u>

- 1) Vibration
- 2) Free vibration
- 3) Circular motion
- 4) frequency

1-2 marks from these Topic



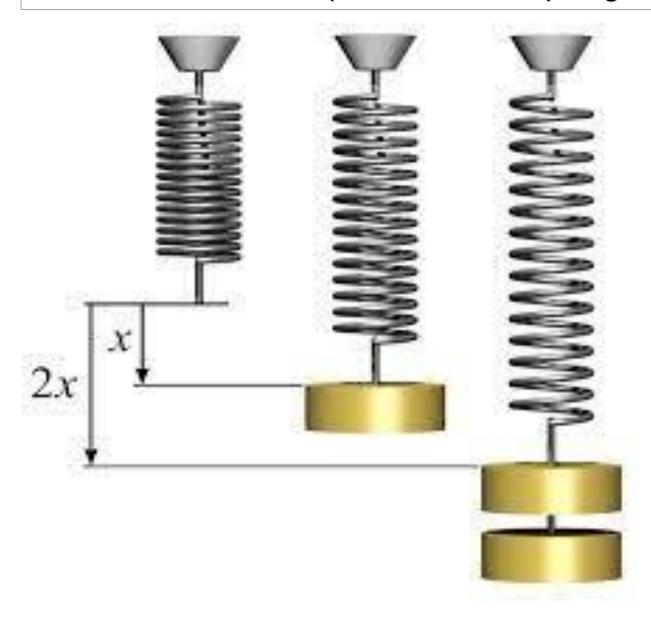
## **Vibration:**-



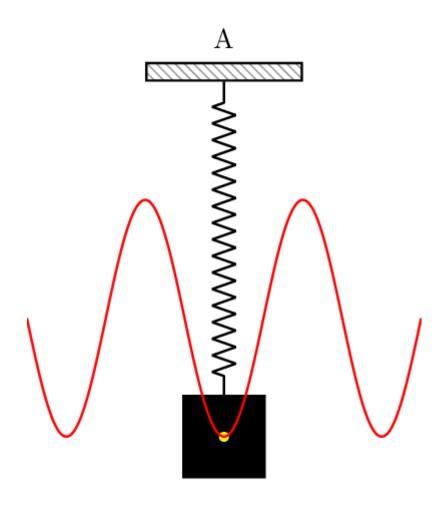




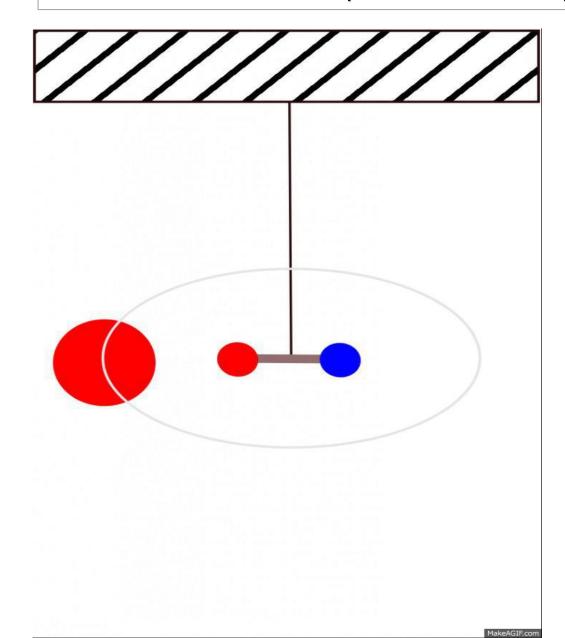


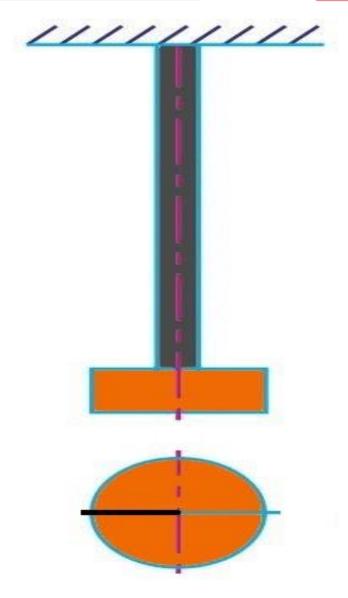










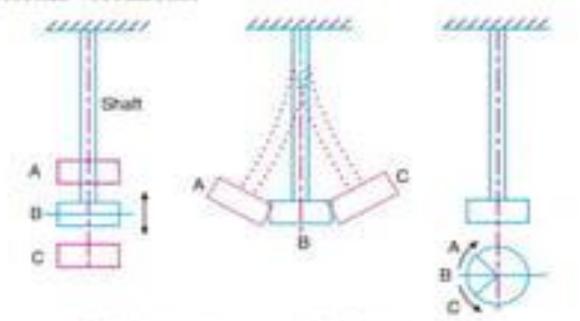




## Types of Free Vibrations

According to the motion of system with respect to axis

- Longitudinal vibrations,
- Transverse vibrations, and
- Torsional vibrations.

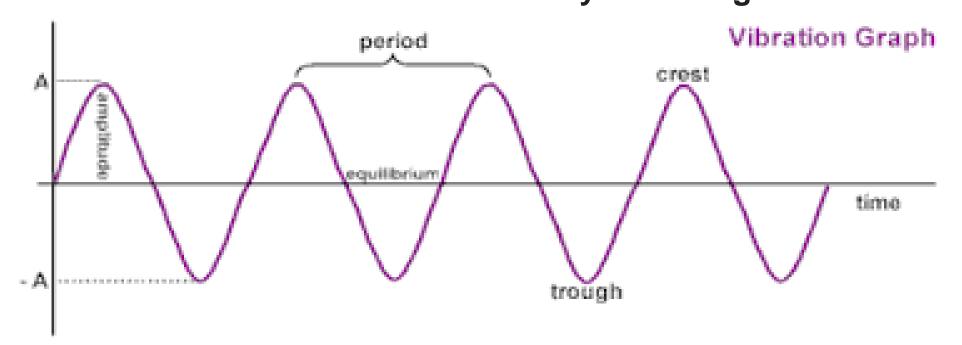








Periodic Vibration:-Vibrations that are regular and predictable- like pendulums- are called periodic. Periodic vibrations are at the heart of music, human speech and almost any other sound where humans perceive pitch. Frequency is the measure of how often cycles repeat-the number of cycles in a given amount of time.





## Vibrations

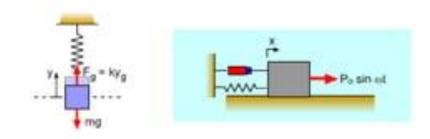
 Free Vibrations: Vibrations that occur in the absence of friction and external forces after initial release of body.

Eg: Simple Pendulum

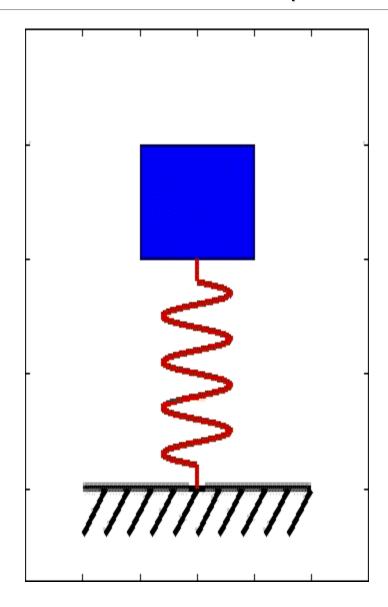
 Forced Vibrations: When repeated force continuously acts on the system the vibrations are said to be forced vibrations.

Eg: Pendulum in a Clock

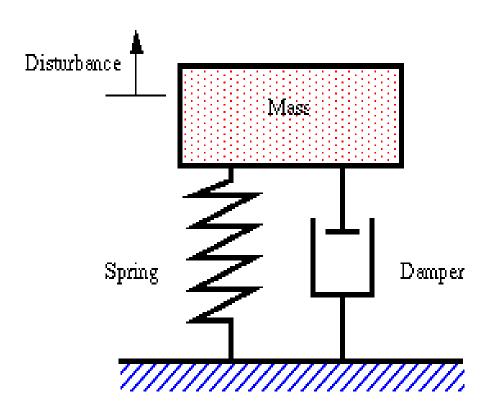




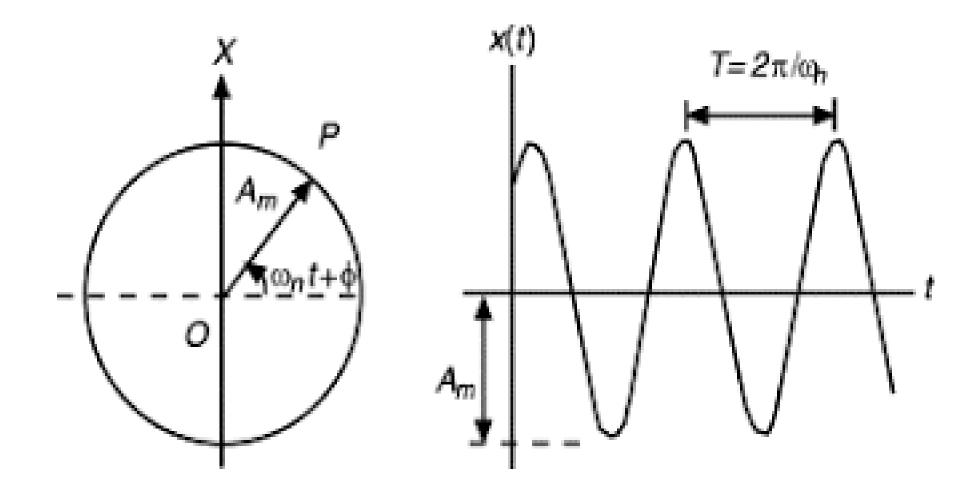






























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