

## SOUND CLASS-IX

SUBJECT : PHYSICS CHAPTER NUMBER: 12 CHAPTER NAME : SOUND

CHANGING YOUR TOMORROW

Website: www.odmegroup.org Email: info@odmps.org

#### Toll Free: 1800 120 2316

Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

### **Home Assignment**

- 1. Two tuning forks, A and B vibrate with frequencies in the ratio 2 : 7 and their wavelengths in the ratio 3 : 4 respectively.
  - Find the tuning fork producing greater velocity of sound.
  - (1) Tuning fork A
  - (3) Both produce sound of same velocity
  - The tuning fork A produces relatively
  - (1) Shrill sound than tuning fork B
  - (3) Louder sound than tuning fork B

- (2) Tuning fork B(4) Can't say
- (2) Flat sound than tuning fork B
- (4) Sound of more wavelength than that of tuning fork B.
- 2. State two practical uses or applications of echoes.
- 3. Give reasons for the following :
  - (a) The reverberation time of a hall used for speeches should be a very short.
  - (b) A vibrating body produces sound. However no sound is heard when a simple pendulum oscillates in air.
  - (c) Sounds of same loudness and pitch but produced by different musical instruments like a violin and flute are distinguishable



#### **Home Assignment**

4. A stone is dropped from the top of a tower 125m high into a pond of at the base of the tower. When is the splash heard at the top (g = 10 m/s2 and speed of sound = 340 m/s)

- 5. "A sound wave with frequency higher than 20 kHz is not audible for human ear." Answer the following in respect of this statement.
  - (i) What is the term used for such a sound?
  - (ii) Name two organisms producing sound in this range. (iii) Write an appliation of such a wave.

- 6. Represent graphically two separate diagrams in each case:
  - (a) Two sound waves having same amplitude but different frequencies.
  - (b) Two sound waves with same frequency and different amplitudes.
  - (c) Two sound waves having. varying amplitudes and different wavelengths.



# THANKING YOU ODM EDUCATIONAL GROUP

