THE VILLAGE
INTERNATIONAL SCHOOL
"We Nurture Dreams"

Chapter 5: Sound

Section A

1. Sound is a type of

   a) Energy *b)* force *c)* charge *d)* matter

2. Sound waves can travel through

   a) Gases only *b)* vacuum only *c)* gases and liquids only
   c) Solids, liquids and gases.

3. Sound waves are

   a) longitudinal *b)* transverse *c)* both a) & (b)
   d) None of the above

4. Sound waves can be

   a) Reflected *b)* Absorbed *c)* Diffracted *d)* All of the above

5. Speed of sound waves in water is about

   a) 332 m/s *b)* 1440 m/s *c)* 5000 m/s *d)* 15000 m/s

6. Speed of sound in ordinary air

   a) is less than Carbon dioxide *b)* greater than CO_2
   c) equal to CO_2 *d)* None of these

7. In which of the following mediums will sound travel fastest

   a) liquid *b)* solid *c)* gas *d)* vacuum.

8. Hertz is a unit of

   a) frequency *b)* wave speed *c)* displacement *d)* wavelength

Section B

1. What type of waves are produced in air when a bell rings?
2. How does sound from a sound producing body travel through air to reach our ears?
3. When we open a gas tap for a few seconds, the sound of escaping gas is heard first but smell of gas comes later why?
4. Describe an experiment to show that sound is not transmitted through vacuum.
5. Define the following terms

   a) echo *b)* amplitude *c)* wavelength *d)* frequency
   e) pitch *f)* loudness *g)* time period

6. Distinguish between echo and reverberation.

Section C

1. A stone is dropped from the top of a tower 300m high splashes into water of a pond near the base of the tower. When is splash heard at the top?

   Given, Speed of sound in air = 340 m/s and g = 9.8 m/s^2

2. If 5 seconds elapse between a lightning flash and the clap of thunder how far away is the storm? Speed of sound in air = 332 m/s

3. A person makes a loud sound and hears the echo of this sound 1.2 s later. Calculate how far the person is from the object causing the echo. Assume speed of sound is 332 m/s