

**CLASS VIII – SCIENCE – CHAPTER 13**

**SOUND**

Name:

Date:

01. Speed of sound increases as it passes through:  
(a). solid < liquid > gas (b). gas < liquid < solid  
(c). liquid < gas < solid (d). gas > liquid > solid
02. The shape of outer ear resembles a:  
(a). funnel (b). kernel (c). tunnel (d). both a & b
03. A tightly stretched membrane that separates outer ear from middle ear is:  
(a). eartube (b). earpinna (c). eardrum (d). earfiller
04. The part of ear which converts sound energy into electric impulses for brain is :-  
(a). outer ear (b). pinna (c). middle ear (d). inner ear
05. In humans sound is produced by:  
(a). larynx (b). larynx (c). larynx (d). larynx
06. The outer ear is also known as:  
(a). pina (b). peena (c). piina (d). pinna
07. Which of the following is not an ear bone?  
(a). strammer (b). hammer (c). anvil (d). stirrup
08. Sound will travel fastest in:  
(a). hydrogen (b). silver (c). vacuum (d). water
09. The pitch of a note depends upon:  
(a). frequency of the sound (b). amplitude of the sound  
(c). speed of the sound (d). both a & b
10. The loudness of sound depends upon:  
(a). frequency of the sound (b). amplitude of the sound  
(c). speed of the sound (d). both a & b
11. High pitch notes are produced by stringed instruments when:  
(a). strings are short (b). strings are thin  
(c). strings are tightly stretched (d). all the above
12. Audible range for humans is between:  
(a). 10 to 10000 Hz (b). 20 to 10000 Hz (c). 20 to 20000 Hz (d). 10 to 20000 Hz
13. Sound is not characterized by:  
(a). quality (b). time (c). loudness (d). pitch
14. Which of the following produce ultrasound waves:  
(a). monkeys (b). dolphins (c). bats (d). both b & c
15. Sounds having frequency less than 20 Hz are:  
(a). sonic sound (b). subsonic sound (c). ultrasonic sound (d). infrasonic sound

## DCA CLASSES

16. A reflected sound is called an:  
(a). geco (b). echo (c). sonar (d). radar
17. Scientists measure the loudness of sound in:  
(a). desibels (b). decebles (c). decibels (d). decibils
18. Speed of sound in air as calculated by scientists is:  
(a). 230 m/s (b). 330 m/s (c). 300 m/s (d). 600 m/s
19. if speed of sound in water is 1500 m/s then in steel it will be:  
(a). 1000 m/s (b). 1500 m/s (c). 600 m/s (d). 6000 m/s
20. A tuning fork produces sound of :-  
(a). single frequency (b). double frequency (c). triple frequency (d). multiple frequency

**Q01.** Match the following

- (A).** (a). Electric (b). Sound (c). Eardrum (d). Pinna (e). Cochlea  
i) middle ear  
ii) inner ear  
iii) stimulus  
iv) guitar  
v) outer ear
- (B).** (a). contraction (b). rarefaction (c). amplitude (d). cochlea (e). semicircular canals  
i) coiled organ of hearing  
ii) organs of balance  
iii) compressed sound waves  
iv) loudness of sound waves  
v) expanded sound waves
- (C).** feeling (a). normal breathing (b). whisper (c). busy traffic (d). normal conversation (e). painful sound  
range of loudness (db)  
i) 90  
ii) 110  
iii) 10  
iv) 30  
v) 70
- (D).** (a). regular vibrations (b). irregular vibrations (c). tuning fork (d). sitar (e). musical scale  
i) sounds flat  
ii) sounds rich  
iii) noise  
iv) octave  
v) musical sound

## DCA CLASSES

<b>(E). Animals</b>	audible range
(a). cats	i) 1 to 20000 Hz
(b). Elephants	ii) upto 40000 Hz
(c). Moths	iii) upto 50000 Hz
(d). Dogs	iv) 100 to 60000 Hz
(e). Grasshoppers	v) 1000 to 240000 Hz

**Q02.** Fill in the blanks :-

- Sound is caused by a source that \_\_\_\_\_ .
- \_\_\_\_\_ cords are present inside the voice box.
- The sense organ that perceives sound is \_\_\_\_\_ .
- The function of outer ear is to \_\_\_\_\_ sound waves.
- Inner ear transmits vibrations to brain by \_\_\_\_\_ nerve.
- The \_\_\_\_\_ of a note in musical scale tells you now high or how low it is.
- Humans cannot hear sounds with frequency higher than \_\_\_\_\_ hertz.
- The voice box is located at the upper end of \_\_\_\_\_ .
- Slower vibrations are also known as \_\_\_\_\_ .
- Movement of a body from one extreme position to the other and back is called an \_\_\_\_\_ .

**Q03.** State whether the following statements are true or false:

- We can always see the vibrations when a sound is produced.
- When we hit the tuning fork on a rubber pad, its prongs oscillate.
- Vocal cords are thin folds at the top of your food pipe.
- Ma is at a higher pitch than ga on a music scale.
- Re** is at a lower pitch than **Sa**.
- Objects that vibrate slow have a high pitch.
- Same note sounds different on different musical instruments.
- The shrillness of a sound is called its pitch.
- Noise is unwanted and displeasing sound.
- Speed of light in air is very much less than the speed of sound in air.
- Sound producing organ in human is pharynx.
- Objects that vibrate fast have a low pitch.
- Ultrasound is safer method to detect the baby as compared to X-ray.
- Sound travels most easily through solids.
- Sound can travel through a vacuum.

**Q04.** How does a human being produce sound? Explain.

**Q05.** Sita felt some irritation in her ears and put a needle into her ears to remove it. Can it be dangerous?

**Q06.** How does an ultrasound machine work in detecting pregnancy or tumour?

**Q07.** A Veena player tunes his instrument before a concert. What is this tuning all about?

## DCA CLASSES

**Q08.** How do we hear sound? Explain stepwise.

**Q09.** Why do we need a medium to make sound travel? Name such mediums and compare their ability to propagate sound.

**Q10.** What is meant by echo location? Is it useful?

**Q11.** An object completes 900 oscillations in 30 seconds. Calculate its frequency.

**Q12.** Differentiate between infrasonic, sonic and ultrasonic sounds?

**Q13.** Calculate distance travelled by sound in air in 15 seconds?

