

**12 Science  
Sound**

**Grade - 9**

**Posttest Subjective**

Time : 20 minutes

Marks :  / 20

**Answer the following questions in a word or sentence :**

**5 Marks**

1. What is sound?

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2. What is echo?

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3. Guess which sound has a higher pitch; guitar or car horn?

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4. What is the Doppler effect?

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5. Name the two types of mechanical waves.

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**Answer the following questions in brief :**

**10 Marks**

1. What is loudness of sound? What factors does it depend on?

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2. Explain how bats use ultrasound to catch a prey.

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3. Give two practical applications of reflection of sound waves.

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4. Does sound follow the same laws of reflection as light does? Explain.

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5. Why are the ceilings of concert halls curved?

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Answer the following questions in detail :

**5 Marks**

1. A person has a hearing range from 20 Hz to 20 kHz. What are the typical wavelengths of sound waves in air corresponding to these two frequencies? Take the speed of sound in air as  $344 \text{ m s}^{-1}$ .

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