

1. When sound wave is refracted from air to water, then which of the following will remain unchanged?

Frequency

Wavelength

Velocity

None of the above

**Answer (a).** Wavelength and velocity of the refracted wave would be different from the incident wave.

2. A sonometer wire having a length of 50 cm is vibrating in the fundamental mode with a frequency 100 Hz. Which of the following is the type of propagating wave and its speed?

Longitudinal, 50 m/s

Transverse, 50 m/s

Longitudinal, 100 m/s

Transverse, 100 m/s

**Answer (d).**

3. In a Laser (say neon laser) all the atoms emit the light waves of

Same frequency

Same amplitude

Same phase

All the above

**Answer (d).**

4. Consider the following statements :

If magenta and yellow coloured circles intersect, the intersected area will have red colour.

If cyan and magenta coloured circles intersect, the intersected area will have blue colour.

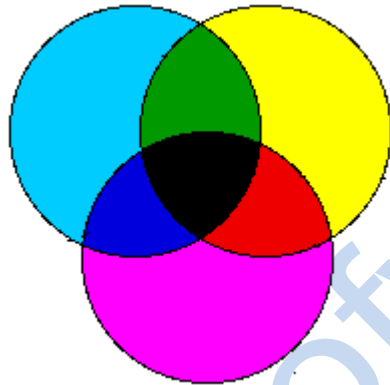
Which of the statements given above is/are correct?

1 only

2 only

Both 1 and 2

Neither 1 nor 2



**Answer (c).**

5. Consider the following statements :

A flute of smaller length produces waves of lower frequency.

Sound travels in rocks in the form of longitudinal elastic waves only.

Which of the statements given above is/are correct?

1 only

2 only

Both 1 and 2

Neither 1 nor 2

**Answer (b).**

6. Which of the following types of light are strongly absorbed by plants?

Violet and orange

Blue and red

Indigo and yellow

Yellow and violet

**Answer (b).**

7. Which components of light are absorbed by chlorophyll?

Violet and red

Indigo and orange

Blue and red

Violet and yellow

**Answer (b).**

8. Which colour is the complementary colour of yellow?

Blue

Green

Orange

Red

**Answer (a).**

9. Which of the following is a wrong statement?

Light travels with a speed greater than that of sound

Light cannot travel through vacuum

Light travels in a straight line

Light is a wave motion

**Answer (b).**

10. In the visible spectrum the colour having the shortest wavelength is :

Red

Yellow

Blue

Violet

**Answer (d).**

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