

## TALLER DE SONIDO 7º

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) The source of every sound is something that is 1) \_\_\_\_\_  
A) a net emitter of energy.  
B) moving.  
C) undergoing simple harmonic motion.  
D) accelerating.  
E) vibrating.
- 2) A sound source of high frequency emits a high 2) \_\_\_\_\_  
A) pitch.  
B) amplitude.  
C) speed.  
D) all of these  
E) none of these
- 3) The approximate range of human hearing is 3) \_\_\_\_\_  
A) 60 hertz to 20,000 hertz.  
B) 10 hertz to 10,000 hertz.  
C) 40 hertz to 40,000 hertz.  
D) Actually all of these – depends on the hearing ability of the person.
- 4) We are best at hearing 4) \_\_\_\_\_  
A) infrasonic sound. B) both infrasonic and ultrasonic sounds.  
C) ultrasonic sound. D) None of the above choices are true.
- 5) A sound wave is a 5) \_\_\_\_\_  
A) longitudinal wave.  
B) standing wave.  
C) shock wave.  
D) transverse wave.  
E) None of the above choices are correct.
- 6) Compressions and rarefactions are characteristic of 6) \_\_\_\_\_  
A) longitudinal waves. B) transverse waves.  
C) both longitudinal and transverse waves. D) none of the above.
- 7) Sound travels faster in 7) \_\_\_\_\_  
A) water.  
B) air.  
C) steel.  
D) a vacuum.  
E) Sound travels at about the same speed in all of the above media.

- 8) Sound waves cannot travel in 8) \_\_\_\_\_  
A) steel.  
B) a vacuum.  
C) water.  
D) air.  
E) any of the above media
- 9) The speed of a sound wave in air depends on 9) \_\_\_\_\_  
A) its wavelength.  
B) its frequency.  
C) the air temperature.  
D) All of the above choices are correct.  
E) None of the above choices are correct.
- 10) Refraction of sound can occur in 10) \_\_\_\_\_  
A) air. B) water.  
C) both air and water. D) neither air nor water.
- 11) The frequencies of sound that carry farther in air are 11) \_\_\_\_\_  
A) high. B) low. C) ultrasonic.
- 12) The natural frequency of an object depends on its 12) \_\_\_\_\_  
A) size and elasticity. B) size, shape and elasticity.  
C) size and shape. D) shape and elasticity.
- 13) The object with the highest natural frequency is a 13) \_\_\_\_\_  
A) medium size bell. B) large bell. C) small bell.
- 14) Caruso is said to have made a crystal chandelier shatter with his voice. This is a demonstration of 14) \_\_\_\_\_  
A) an echo.  
B) sound refraction.  
C) resonance.  
D) beats.  
E) interference.
- 15) Sound waves can interfere with one another so that no sound results. 15) \_\_\_\_\_  
A) True  
B) False  
C) Either true or false, depending on the air temperature.
- 16) In designing a music hall, an acoustical engineer deals mainly with 16) \_\_\_\_\_  
A) wave interference.  
B) beats.  
C) forced vibrations.  
D) modulation.  
E) resonance.

17) The phenomenon of beats results from sound

- A) reflection.
- B) refraction.
- C) interference.
- D) all of these
- E) none of these

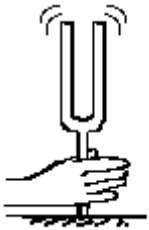
17) \_\_\_\_\_

18) Which doesn't belong to the same family?

- A) ultrasonic waves
- B) longitudinal waves
- C) radio waves
- D) shock waves
- E) infrasonic waves

18) \_\_\_\_\_

Figure 20-A

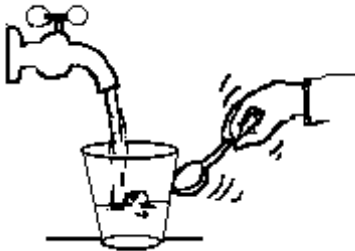


19) When the handle of a tuning fork is held solidly against a table, the sound becomes louder and the time that the fork keeps vibrating

- A) becomes shorter.
- B) remains the same.
- C) becomes longer.

19) \_\_\_\_\_

Figure 20-B



20) Repeatedly tap the side of a drinking glass with a spoon while filling it with water and you will notice that the pitch of the sound

- A) decreases.
- B) increases.
- C) remains relatively constant.

20) \_\_\_\_\_