

# QB365 Question Bank Software Study Materials

## Sound 50 Important 1 Marks Questions With Answers (Book Back and Creative)

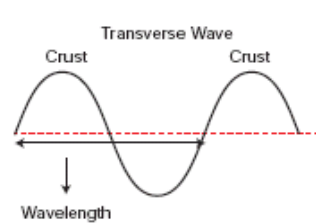
9th Standard

Science

Total Marks : 50

### Multiple Choice Question

35 x 1 = 35

- 1) Which of the following vibrates when a musical note is produced by the cymbals in a orchestra?  
(a) stretched strings (b) stretched membranes (c) air columns **(d) metal plates**
- 2) Sound travels in air:  
(a) if there is no moisture in the atmosphere. (b) if particles of medium travel from one place to another.  
(c) if both particles as well as disturbance move from one place to another. **(d) if disturbance moves.**
- 3) A musical instrument is producing continuous note. This note cannot be heard by a person having a normal hearing range. This note must then be passing through  
(a) wax **(b) vacuum** (c) water (d) empty vessel
- 4) The maximum speed of vibrations which produces audible sound will be in  
(a) seawater **(b) ground glass** (c) dry air (d) Human blood
- 5) The sound waves travel faster  
(a) in liquids (b) in gases **(c) in solids** (d) in vacuum
- 6) If the speed of a wave is  $340 \text{ m s}^{-1}$  and its frequency is 1700 Hz, then wavelength  $\lambda$  for this wave in cm will be  
(a) 34 **(b) 20** (c) 15 (d) 0.2
- 7) Which of the following statement best describes frequency?  
**(a) the number of complete vibrations per second.** (b) the distance travelled by a wave per second.  
(c) the distance between one crest of wave and the next one. (d) the maximum disturbance caused by a wave.
- 8) In the sound wave produced by a vibrating tuning fork as shown in the diagram, half the wave length is represented by:  
  
(a) BD **(b) AB** (c) AE (d) DE
- 9) When the pitch of note by a harmonium is lowered, then the wave length of the note  
(a) first decreases and then increases (b) decreases (c) remains the same **(d) increases**
- 10) The speeds of sound in four different media are given below. Which of the following is the most likely speed in  $\text{ms}^{-1}$  with which the two underwater whales in a sea can talk to each other when separated by a large distance?  
(a) 5170 (b) 1280 (c) 340 **(d) 1530**
- 11) Which of the following can produce longitudinal waves as well as transverse waves under different conditions?  
**(a) TV transmitter** (b) tuning fork (c) water (d) slinky

- 12) The velocities of sound waves in four media P, O, Q, R and S are 18,00 km/h, 900 km/h, 0 km/h, and 1200 km/h respectively. Which could be a liquid medium?
- (a) R (b) Q (c) P **(d) S**
- 13) Which of the following are infrasonic waves?
- (a) 5 kHz (b) 25 Hz **(c) 10 Hz** (d) 15000 Hz
- 14) What name is given to the aircrafts which fly at speeds greater than the speed of sound?
- (a) Ultrasonic jets (b) Infrasonic jets **(c) Supersonic jets** (d) Regular jets
- 15) Speed of sound in solids does not depend upon \_\_\_\_\_.
- (a) temperature (b) density (c) medium **(d) pressure**
- 16) Which of the following sound is not the cause of noise pollution?
- (a) Loud speaker (b) Horn of vehicle (c) Explosion **(d) Television**
- 17) The back and forth motion of the object is called \_\_\_\_\_.
- (a) Vibration** (b) Rotation (c) Translation (d) Linear motion
- 18) A small bee produces sound, while it moves, the sound is created due to \_\_\_\_\_.
- (a) grinding its teeth (b) Friction due to air **(c) flapping of wings** (d) sound due to its vocal cord
- 19) A Sonar device on a submarine send out a signal and receives an echo 5 seconds later. Calculate the speed of sound in water if the distance of the object from the submarine is 3500 m.
- (a)  $1440 \text{ ms}^{-1}$  (b)  $1460 \text{ ms}^{-1}$  **(c)  $1400 \text{ ms}^{-1}$**  (d)  $1550 \text{ ms}^{-1}$
- 20) The phenomenon of echo of sound waves is due to \_\_\_\_\_.
- (a) Reflection** (b) Interference (c) Diffraction (d) All of the above
- 21) Sound needs a material medium like \_\_\_\_\_ for its propagation.
- (a) air (b) water (c) steel **(d) All the above**
- 22) A small disturbance which is carried forward in a medium is called \_\_\_\_\_.
- (a) wave** (b) light (c) magnetism (d) ray
- 23) If the vibration of the particles has large amplitude the sound will be \_\_\_\_\_.
- (a) soft **(b) loud** (c) both Soft and loud (d) reduced
- 24) Amplitude is denoted as A. Its SI unit is \_\_\_\_\_.
- (a) kilogram (b) newton **(c) meter** (d) litre
- 25) Human ear can hear sound with frequency from \_\_\_\_\_.
- (a) 10 Hz to 10000 Hz **(b) 20 Hz to 20000 Hz** (c) 5 Hz to 5000 Hz (d) None of these
- 26) Sound with frequency less than 20 Hz is called \_\_\_\_\_ sound.
- (a) ultrasonic (b) supersonic **(c) infrasonic** (d) ultra violet
- 27) The maximum distance in which a sound wave repeats itself is called its \_\_\_\_\_.
- (a) amplitude (b) frequency (c) time period **(d) wavelength**
- 28) The SI unit of wavelength is \_\_\_\_\_.
- (a) metre** (b) hertz (c) second (d) none of these

- 29) The intensity level of sound in city traffic is \_\_\_\_\_ decibels.  
 (a) 120 (b) 40 (c) **70** (d) 100
- 30) The sound of thunder is heard a little \_\_\_\_\_ than the flash of light is seen.  
 (a) **quicker** (b) later (c) faster (d) speeder
- 31) Sound travels about \_\_\_\_\_ faster in water than in air.  
 (a) **5 times** (b) 4 times (c) 6 times (d) 10 times
- 32) The speed of sound in air is \_\_\_\_\_ m/s at 25°C.  
 (a) 330 (b) 360 (c) 280 (d) **340**
- 33) Sounds with loudness of \_\_\_\_\_ is partial in the air.  
 (a) 240 dB (b) **120 dB** (c) 380 dB (d) 360 dB
- 34) The inner parts of the body is examined with \_\_\_\_\_ sound.  
 (a) **ultra** (b) supersonic (c) ordinary (d) infrasonic
- 35) \_\_\_\_\_ is a device that uses ultrasonic waves to measure the distance.  
 (a) LUNAR (b) **SONAR** (c) RADAR (d) Glider

**Fill in the blanks**

15 x 1 = 15

- 36) Vibration of object produces\_\_\_\_\_  
**sound**
- 37) Sound is a \_\_\_\_\_ wave and needs a material medium to travel.  
**Longitudinal**
- 38) Number of vibrations produced in one second is \_\_\_\_\_  
**Frequency**
- 39) The velocity of sound in solid is \_\_\_\_\_ than the velocity of sound in air.  
**faster**
- 40) Loudness is proportional to the square of the \_\_\_\_\_.  
**Amplitude**
- 41) \_\_\_\_\_ is a medical instrument used for listening to sounds produced in the body.  
**Stethoscope**
- 42) The repeated reflection that results in persistence of sound is called \_\_\_\_\_ .  
**Reverberation**
- 43) A sound wave has a frequency of 4 k hz and wavelength 2 m. Then the velocity of sound is \_\_\_\_\_ .  
**800 m/s or 8000 rns<sup>-1</sup>**
- 44) Ultrasounds can also be used to detect cracks and flows in \_\_\_\_\_ .  
**metal blocks**
- 45) Unwanted sound is called \_\_\_\_\_.  
**noise**
- 46) Shrillness of sound is determined by the \_\_\_\_\_ of vibration.

**Frequency**

47) The unit of frequency is \_\_\_\_\_.

**Hertz**

48) The SI unit of frequency is \_\_\_\_\_.

**Hertz**

49) The loudness of a sound depends on the \_\_\_\_\_ of the sound wave.

**intensity**

50) A sound of single frequency is called a \_\_\_\_\_.

**tone**