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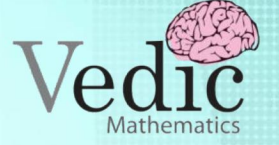
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Chapter-04

Sound

1.The velocity of sound in moist air is more than in dry air because the moist air has –

- (A) Less pressure than dry air
- (B) More density than dry air
- (C) Less density than dry air
- (D) More pressure than dry air

2.Hertz is the unit of.....

- (A) Frequency
- (B) Wavelength
- (C) Intensity
- (D) Clarity of waves

3.The Unit of noise pollution (level) is–

- (A) Decibel
- (B) Decimal
- (C) Ppm
- (D) None of the above

4.What is Decibel?

- (A) A musical instrument
- (B) Wavelength of noise
- (C) A musical note
- (D) Scale of sound level

5.The Permissible noise level at residential area during day time is....

- (A) 45 dB
- (B) 55 dB
- (C) 75 dB
- (D) 80 dB

6.The range of frequency of ultrasonic wave.

- (A) Greater than 20 KHz
- (B) Greater than 20,000 KHz
- (C) Below than 20 KHz
- (D) Greater than 02 KHz

7.In which of the following frequency Range, Human ear feels the sensitivity of vibration of sound?

- (A) 0 – 5 Hz
- (B) 6 – 10 Hz
- (C) 11 – 15 Hz
- (D) 20 – 20,000 Hz

8.If the ratio of intensity of wave is 25:9. What is the ratio of their amplitude?

- (A) 50 : 18
- (B) 5 : 3
- (C) 3 : 5
- (D) 25 : 9

9.Supersonic air plane creates a shock wave called –

- (A) Transition wave
- (B) Ultrasound wave

(C) Sonic Boom

(D) Transverse

10.Which of the following does not have any effect on velocity of sound?

- (A) Pressure
- (B) Temperature
- (C) Humidity
- (D) Density

11.Sound cannot pass through–

- (A) Water
- (B) Steel
- (C) Air
- (D) Vacuum

12.In which of the following speed of sound is maximum?

- (A) Steel
- (B) Air
- (C) Vacuum
- (D) Water

13.In which of the following medium speed of sound will be comparatively high?

- (A) Carbon dioxide
- (B) Iron Rod
- (C) Steam
- (D) Water

14.Pitch of a sound depends upon its –

- (A) Frequency
- (B) Intensity
- (C) Velocity
- (D) Amplitude

15.Which of the following character of sound wave change with the change in temperature in atmosphere.

- (A) Frequency
- (B) Amplitude
- (C) Wavelength
- (D) Intensity

16.Which phenomenon do bat or dolphins used to find prey, predators or obstacles?

- (A) Refraction of sound
- (B) Formation of beats
- (C) Scattering of sound
- (D) Echolocation

17.When a vibrating tuning fork is placed on table, a loud sound is heard. This is due to –

- (A) Reflection
- (B) Refraction
- (C) Forced vibration
- (D) Damped vibration

18.Sound waves do not exhibit the phenomenon of

- (A) Interference
- (B) Diffraction
- (C) Refraction
- (D) Polarisation

19.Sound waves cannot be polarised because they

- (A) Require a material medium for propagation
- (B) Are longitudinal





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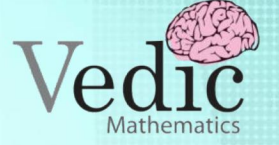
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- (C) Are tranverse
(D) Have low velocity

20. The velocity of sound in a gas depends on

- (A) Wavelength only
(B) Density and elasticity of gas
(C) Intensity only
(D) Amplitude and frequency

21. When we hear a sound, we can identify its source from

- (A) Wavelength of sound
(B) The overtones present in the sound
(C) The intensity of sound
(D) The amplitude of sound

22. Which of the following type of waves is different from others?

- (A) Light waves (B) X-rays
(C) Radio waves (D) Sound waves

23. Quality is that sensation of sound which is felt by our ears by virtue of

- (A) Waveform of sound wave
(B) Frequency of sound wave
(C) Amplitude of sound wave
(D) None of these

24. Beats occur because of

- (A) Interference (B) Reflection
(C) Refraction (D) Doppler effect

25. The loudness of sound depends upon

- (A) Velocity (B) Pitch
(C) Amplitude (D) Wavelength

26. Pitch is sensation which depends upon

- (A) Frequency (B) Amplitude
(C) Wavelength (D) Velocity

27. The quality of sound produced by an instrument depends on the

- (A) Frequency (B) Intensity
(C) Number of overtones (D) None of these

28. Sound waves of wavelength greater than that of audible sound are called.

- (A) Infrasonic waves

- (B) Ultrasonic wave
(C) Sonic wave
(D) Seismic waves

29. If a sound travels from air to water, the quantity that remain unchanged is

- (A) Velocity (B) Frequency
(C) Wavelength (D) Amplitude

30. Ultrasonic waves can be detected by

- (A) Telephone (B) Hebb's method
(C) Kundt's tube (D) Quincke's tube

31. The waves used in sonography are-

- (A) Micro waves (B) Infra-red waves
(C) Sound waves (D) Ultrasonic waves

32. Echo is produced due to

- (A) Reflection of sound
(B) Refraction of sound
(C) Resonance
(D) None of these

33. SONAR is based on the principle of

- (A) Echo (B) Resonance
(C) Reverberation (D) None of these

34. Instrument used to study the behaviour of a vibrating string is:

- (A) Hygrometer (B) Sonometer
(C) Barometer (D) Hydrometer

35. Sound travels fastest in

- (A) Steel (B) Air
(C) Water (D) Vacuum

36. Speed of sound in a gas is proportional to

- (A) Square root of isothermal elasticity
(B) Square root of adiabatic elasticity
(C) Isothermal elasticity
(D) Adiabatic elasticity

37. The Doppler's effect is applicable for

- (A) Light wave (B) Sound wave
(C) Space wave (D) Both (A) and (B)

38. Which one of the following animals can hear ultrasonic sound?





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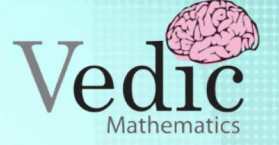
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(A) Rat
(C) Cat

(B) Squirrel
(D) Bat

39. Submerged objects can be located using

(A) Radar
(C) Quasar

(B) Sonar
(D) Pulsar

40. Velocity of sound in air does not change with the change of

(A) Temperature of air
(B) Pressure of air
(C) Moisture content in air

(D) Wind in the direction of propagation of sound

41. The frequency of ultrasound wave is typically

(A) Above 20,000 KHz
(C) Below 02 KHz

(B) Above 20 KHz
(D) Below 2000 KHz

42. The velocity of sound in air (SSC CPO S.I 2010)

(A) Decreases with increase of temperature
(B) Increase with decrease of temperature
(C) Does not depend on temperature
(D) Decreases with decrease in temperature

Exp: The velocity of sound increases with increase in temperature of medium or vice versa as V

43. The device which converts sound energy into electrical energy is called

(A) Amplifier
(C) Microphone

(B) Speaker
(D) Transmitter

44. Least audible sound for most of the human ear is:

(A) 10.0 bar
(C) 0.005 bar

(B) 0.0002 bar
(D) 5.0 bar

45. The ordinary and maximum tolerance limit of sound by human being is

(A) 50 dB to 70 dB (decibel)
(B) 60 dB to 80 dB (decibel)
(C) 65 dB to 75 dB (decibel)
(D) 70 dB to 85 dB (decibel)

46. Sound is heard over longer distances on rainy days because (SSC CGL Tier-I 2015)

(A) Sound travels slowly in moist air
(B) Sound travels faster in moist air
(C) Moist air does not absorb sound

(D) Moist air absorbs sound

47. Which of the following property of sound is affected by change in air temperature

(A) Frequency
(C) Amplitude

(B) Intensity
(D) Wavelength

48. A person standing on a railway platform listens to the whistles of arriving and departing trains.

(A) The same in both cases in all respects
(B) Of higher intensity when train arrives
(C) Of higher pitch when train arrives
(D) Of higher pitch when train departs

49. Which term is not associated with sound wave?

(A) Hertz
(C) Candela

(B) Decibel
(D) Mach

50. If density of oxygen is 16 times that of hydrogen. What will be their corresponding ratio of velocity of sound?

(A) 4 : 1
(C) 1 : 16

(B) 2 : 1
(D) 1 : 4

51. Conversion of sound energy into electrical energy is done by

(A) Solar cell
(C) Microphone

(B) Gramophone
(D) Loud speaker

52. A bomb explodes on the moon. You will hear its sound on earth after ____

(A) 20 minutes
(B) 2 hours 20 minutes
(C) 3.7 hours
(D) You cannot hear the sound of explosion

53. Bats can sense obstacles because they produce

(A) Supersonic sound waves
(B) Ultrasonic sound waves
(C) Infrasonic sound waves
(D) Micro sound waves

54. Quality of a musical note depends on

(A) Fundamental frequency
(B) Amplitude of the wave
(C) Harmonics present
(D) Velocity of sound in the medium





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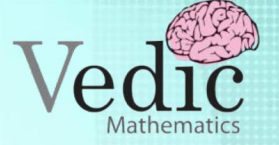
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55. Which of the following is the unit of perceived loudness of sound?

- (A) Decibel (B) Sone
(C) Hertz (D) Phon

56. Hydroscope is an instrument that shows changes in

- (A) Sound under water
(B) Atmospheric humidity
(C) Density of liquid
(D) Elevation of land

57. The SI unit of intensity of sound is ____.

- (A) Watt per square meter
(B) Joule per square meter
(C) Newton per square meter
(D) Tesla per square meter

58. Women have shrill voice because of ____.

- (A) Low frequency (B) High frequency
(C) Shrill vocals (D) Strong epiglottis

59. The instrument used to study the laws of vibrating string is ____.

- (A) Hydrometer (B) Sonometer
(C) Sphygmomanometer (D) Electrometer

60. In fluid mechanics, Mach number is 1, if the speed of an object is equal to the ____?

- (A) Speed of light
(B) Rotational speed of sun
(C) Speed of sound
(D) Speed of revolution of earth around the sun

61. What is the unit of frequency?

- (A) Decibel (B) Watt
(C) Hertz (D) Newton

62. Sounds of frequencies below 20 Hz are called ____.

- (A) Infrasonic sound (B) Ultrasonic sound
(C) Intrasonic sound (D) Reflected sound

63. What is the minimum distance (in metres) required to hear an echo?

- (A) 10 (B) 13
(C) 17 (D) 21

64. Which among the following determines the pitch of a sound?

- (A) Amplitude
(C) Loudness

- (B) Frequency
(D) Wavelength

65. What is the SI unit of frequency?

- (A) Newton (B) Watt
(C) Farad (D) Hertz

66. Who pioneered diagnostic ultrasound?

- (A) Alexander Fleming (B) Ian Donald
(C) A. Laveran (D) Robert Koch

67. What is the SI unit of intensity of sound?

- (A) Decibel (B) Newton
(C) Hertz (D) Tesla

