



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

1. What is the sound?

- a. A form of light
- b. A form of heat
- c. Vibrations that travel through a medium
- d. Magnetic waves

Ans: c. Vibrations that travel through a medium

2. Which of the following is the primary medium for the propagation of sound?

- a. Vacuum
- b. Air
- c. Water
- d. Glass

Ans: b. Air

3. What is the speed of sound in air at room temperature (approximately)?

- a. 300 meters per second
- b. 343 meters per second
- c. 500 meters per second
- d. 700 meters per second

Ans: b. 343 meters per second

4. Which property of a sound wave determines its pitch?

- a. Amplitude
- b. Frequency
- c. Wavelength
- d. Speed

Ans: b. Frequency



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

5. What is the unit of measurement for frequency?

- a. Hertz (Hz)
- b. Decibel (dB)
- c. Watt (W)
- d. Newton (N)

Ans: a. Hertz (Hz)

6. In which medium does sound travel the fastest?

- a. Air
- b. Water
- c. Steel
- d. Vacuum

Ans: c. Steel

7. Which part of the ear is responsible for converting sound vibrations into electrical signals sent to the brain?

- a. Outer ear
- b. Middle ear
- c. Inner ear
- d. Eardrum

Ans: c. Inner ear

8. What is the term for the phenomenon where sound waves bounce off a surface?

- a. Refraction
- b. Reflection
- c. Diffraction
- d. Absorption

Ans: b. Reflection



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

9. What is the range of human hearing in terms of frequency?

- a. 20 Hz to 20,000 Hz
- b. 1 Hz to 1,000 Hz
- c. 5,000 Hz to 10,000 Hz
- d. 50 Hz to 100 Hz

Ans: a. 20 Hz to 20,000 Hz

10. Which musical instrument produces sound through the vibration of strings?

- a. Flute
- b. Piano
- c. Violin
- d. Trumpet

Ans: c. Violin

11. Which of the following electromagnetic waves has the shortest wavelength?

- a. Radio waves
- b. Microwaves
- c. X-rays
- d. Gamma rays

Ans: d. Gamma rays

12. What is the speed of electromagnetic waves in a vacuum?

- a. 300,000 km/s
- b. 150,000 km/s
- c. 1,000,000 km/s
- d. 500,000 km/s

Ans: a. 300,000 km/s



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

13. Which electromagnetic waves are commonly used in microwave ovens?

- a. Infrared waves
- b. Microwaves
- c. Radio waves
- d. Ultraviolet waves

Ans: b. Microwaves

14. What is the primary source of ultraviolet (UV) radiation?

- a. Sun
- b. Microwave ovens
- c. X-ray machines
- d. Light bulbs

Ans: a. Sun

15. Which electromagnetic waves are often used for communication in television and radio broadcasting?

- a. Infrared waves
- b. Ultraviolet waves
- c. Radio waves
- d. X-rays

Ans: c. Radio waves

16. What is the main application of X-rays in medicine?

- a. Cancer treatment
- b. Dental imaging
- c. Bone imaging
- d. Eye surgery

Ans: c. Bone imaging



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

17. Which type of electromagnetic waves is responsible for the warming of the Earth's surface?

- a. Infrared waves
- b. Ultraviolet waves
- c. Radio waves
- d. Microwaves

Ans: a. Infrared waves

18. What is the range of frequencies for visible light in the electromagnetic spectrum?

- a. 1 Hz to 100 Hz
- b. 10Hz to 1 MHz
- c. 400 THz to 700 THz
- d. 10 MHz to 100 MHz

Ans: c. 400 THz to 700 THz

19. Which electromagnetic waves have the longest wavelength?

- a. Infrared waves
- b. Radio waves
- c. Ultraviolet waves
- d. Microwaves

Ans: b. Radio waves

20. What is the primary hazard associated with exposure to excessive amounts of gamma rays?

- a. Skin burns
- b. Radiation sickness
- c. Vision impairment
- d. Hearing loss

Ans: b. Radiation sickness



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

21. Which property of a sound wave determines its loudness?

- a. Frequency
- b. Amplitude
- c. Wavelength
- d. Speed

Ans: b. Amplitude

22. What is the unit of measurement for the intensity of sound?

- a. Hertz (Hz)
- b. Decibel (dB)
- c. Watt (W)
- d. Meter (m)

Ans: b. Decibel (dB)

23. Which of the following animals is known to use infrasound for communication and navigation?

- a. Bats
- b. Dolphins
- c. Elephants
- d. Dogs

Ans: c. Elephants

24. Which term describes the number of vibrations per second and determines the pitch of a sound wave?

- a. Amplitude
- b. Frequency
- c. Wavelength
- d. Intensity

Ans: b. Frequency



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

25. What is the speed of sound in a medium determined by?

- a. Amplitude
- b. Frequency
- c. Wavelength
- d. Properties of the medium

Ans: d. Properties of the medium

26. Which type of sound wave is characterized by a repeating pattern of high- and low-pressure areas?

- a. Longitudinal waves
- b. Transverse waves
- c. Standing waves
- d. Surface waves

Ans: a. Longitudinal waves

27. What happens to the speed of sound in air as the temperature increases?

- a. Increases
- b. Decreases
- c. Remains constant
- d. Depends on the amplitude

Ans: a. Increases

28. At what temperature does the speed of sound is maximum in Aluminium?

- a. 0°C
- b. 25°C
- c. 100°C
- d. It doesn't depend on temperature

Ans: b. 25°C



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

29. Which part of the ear is responsible for collecting sound waves and directing them to the eardrum?

- a. Outer ear
- b. Middle ear
- c. Inner ear
- d. Auditory nerve

Ans: a. Outer ear

30. In which direction do particles in a longitudinal wave oscillate?

- a. Up and down
- b. Left and right
- c. Along the direction of the wave
- d. In a circular motion

Ans: c. Along the direction of the wave

31. What is the frequency range of infrasonic waves?

- a. Below 20 Hz
- b. 20 Hz to 20,000 Hz
- c. Above 20,000 Hz
- d. 1 GHz to 10 GHz

Ans: a. Below 20 Hz

32. What is the typical frequency range of ultrasonic waves?

- a. 1 Hz to 1,000 Hz
- b. 20 Hz to 20,000 Hz
- c. Above 20,000 Hz
- d. 1 MHz to 10 MHz

Ans: c. Above 20,000 Hz



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

33. What is the wavelength of a longitudinal wave measured between?

- a. Two consecutive crests
- b. Two consecutive troughs
- c. Two consecutive compressions
- d. Two consecutive rarefactions

Ans: c. Two consecutive compressions

34. Which of the following is an example of a longitudinal wave?

- a. Water waves
- b. Light waves
- c. Sound waves
- d. Radio waves

Ans: c. Sound waves

35. In which direction do particles in a transverse wave oscillate?

- a. Along the direction of the wave
- b. In a circular motion
- c. Perpendicular to the direction of the wave
- d. Diagonally to the direction of the wave

Ans: c. Perpendicular to the direction of the wave

36. What is the term for the high points of a transverse wave?

- a. Crest
- b. Troughs
- c. Compressions
- d. Rarefactions

Ans: a. Crest



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

37. Which type of waves are light waves?

- a. Longitudinal waves
- b. Transverse waves
- c. Electromagnetic waves
- d. Surface waves

Ans: b. Transverse waves

38. What is the wavelength of a transverse wave measured between?

- a. Two consecutive crests
- b. Two consecutive troughs
- c. Two consecutive compressions
- d. Two consecutive rarefactions

Ans: a. Two consecutive crests

39. Which of the following is an example of a transverse wave?

- a. Sound waves
- b. Water waves
- c. Seismic waves
- d. Radio waves

Ans: b. Water waves

40. Which application utilizes the reflection of sound waves to create images of the internal structures of the body?

- a. Sonar
- b. Radar
- c. Echocardiography
- d. Ultrasound imaging

Ans: d. Ultrasound imaging



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

41. In which field is the Doppler effect commonly used to measure the speed of moving objects?

- a. Meteorology
- b. Astronomy
- c. Medicine
- d. Traffic monitoring

Ans: d. Traffic monitoring

42. What is the primary application of sonar technology in underwater navigation?

- a. Determining water temperature
- b. Measuring water pressure
- c. Detecting and locating objects underwater
- d. Mapping Ocean currents

Ans: c. Detecting and locating objects underwater

43. Which musical instrument produces sound through the vibration of a column of air?

- a. Guitar
- b. Piano
- c. Flute
- d. Drum

Ans: c. Flute

44. What is the main purpose of noise-cancelling headphones?

- a. Enhancing bass frequencies
- b. Blocking out unwanted sounds
- c. Increasing overall volume
- d. Amplifying high-frequency sounds

Ans: b. Blocking out unwanted sounds



Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

45. Which sound wave is used to study the Earth's interior and locate underground structures such as oil reservoirs?

- a. Seismic waves
- b. Infrasound
- c. Ultrasonic sound
- d. SONAR

Ans: a. Seismic waves

46. Infrasonic sound is generated by which of the following natural phenomena?

- a. Earthquakes
- b. Thunderstorms
- c. Volcanic eruptions
- d. All of the above

Ans: d. All of the above

47. What is the primary purpose of a stethoscope in the medical field?

- a. Measuring blood pressure
- b. Listening to internal body sounds
- c. Viewing internal organs
- d. Monitoring body temperature

Ans: b. Listening to internal body sounds

48. Which application involves the use of sound waves to measure the depth of water in oceans and lakes?

- a. Echocardiography
- b. Hydrophone
- c. Sonar
- d. Doppler radar

Ans: c. Sonar



Selvam College of Technology



Accredited by NAAC with "A" Grade, UGC Recognized 2(f) Status,
An ISO 9001:2015 Certified Institution, Approved by AICTE - New Delhi, Affiliated to Anna University - Chennai

PONNUSAMY NAGAR, SALEM ROAD(NH-44), NAMAKKAL - 637003. TAMILNADU.
Mobile: 9942099122, 9942099109, Web: www.selvamtech.edu.in

Name of the Bundle	Proficient and Advanced Bundle V2	Subject	Competitive Exams Training (Science & Geography)
Topic	SOUND	Last updated on	19 January 2024

49. What technology relies on the transmission of sound waves to enable communication over long distances underwater?

- a. Wi-Fi
- b. Bluetooth
- c. Walkie-talkie
- d. Underwater acoustic communication

Ans: d. Underwater acoustic communication