

BALABHADRA SKILL DEVELOPMENT ACADEMY
SCIENCE QUESTION BANK - 12

Time: 1 Hour

Full marks: 55

Pass marks: 44

1. _____ is said to be done whenever a force acts on a body and the body move in the direction of the force.
2. The SI unit of work is _____.
- 2(a) 1 Joule = _____ X _____
3. Work done on an object by a force would be _____ if the displacement of the object is zero.
4. An object having capability to do work is said to possess _____.
5. _____ has the same unit as that of work.
6. An object in motion possesses _____ energy.
7. The energy possessed by a body due to its change in position or shape is called the _____.
8. The gravitational potential energy of an object of mass, m at height 'h' is _____.
9. Law of conservation of energy is _____.
- 9(a) Total energy before and after transformation _____.
10. The sum of the kinetic and potential energies of an object is called its _____.
11. Power is defined as _____.
12. SI unit of power is _____.
13. 1 W = _____.
14. The energy used in one hour at the rate of 1kW is called _____.
15. Work done is _____ when the force is in the direction of displacement.
16. Work done is _____ when the force acts opposite to the direction of displacement.
17. Work done = _____ X _____
18. _____ of a body is defined as its capacity to do work.
19. Work is a _____ quantity.
20. Kinetic Energy = _____.
21. The rate of doing work is called _____.
22. Power = _____ / _____.
23. Sound is produced due to _____ of different objects.
24. Sound travels as a _____ through a material medium.
25. Sound travels as successive _____ and _____ in the medium.
26. In sound propagation, it is the _____ of the sound that travels and not _____.
27. Sound cannot travel in _____.
28. The change in density from maximum value to the minimum value and again to the maximum value makes one complete _____.
29. ~~The distance between two consecutive compressions or two consecutive rarefactions is called the _____.~~
30. The time taken by the wave for one complete oscillation of the density or pressure of the medium is called the _____.
31. The number of complete oscillations per unit time is called the _____.
- 31(a) Frequency = _____ / _____
- 31(b) Speed of Sound = _____ X _____

32. The speed of sound depends primarily on _____ and _____ of the transmitting medium.
33. The law of reflection of sound states that the directions in which the sound is incident and reflected make _____ with the normal to the reflecting surface at the point of incidence and the three lie in the _____ plane.
34. For hearing a distinct sound, the time interval between the original sound and the reflected one must be at least _____.
35. The persistence of sound in an auditorium is the result of repeated _____ of sound and is called _____.
36. Sound properties such as pitch, loudness and quality are determined by the corresponding _____.
37. _____ is a physiological response of the ear to the intensity of sound.
38. The amount of sound energy passing each second through unit area is called the _____.
39. The audible range of hearing for average human beings is in the frequency range of _____.
40. Sound waves with frequencies below the audible range are called _____ and those above the audible range are called _____.
41. Sound is _____ frequency has many medical and industrial applications.
42. The _____ technique is used to determine the depth of the sea and to locate under water hills, valleys, submarines, icebergs, sunken ships etc.
43. _____ motion repeats itself in equal intervals of time.
44. SI unit of Time Period _____.
45. The number of oscillations completed by an oscillating body per second is called _____.
46. SI unit of Frequency is _____.
47. _____ is equal to reciprocal of time period.
48. _____ is a wave of short duration.
49. _____ is the distance travelled by the wave in one second.
50. The number of waves contained in unit length of the medium is called _____.
51. Wave number is reciprocal of _____.

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SCIENCE QUESTION BANK – 12(ANSWER)

1. Work
2. Joule
- 2(a) $1 \text{ newton} \times 1 \text{ metre}$
3. zero
4. Energy
5. Energy
6. kinetic
7. potential energy
8. mgh
9. energy can only be transformed from one form to another; it can neither be created nor destroyed
- 9(a) remains constant
10. mechanical energy
11. rate of doing work
12. watt
13. 1 J/s.
14. 1 kWh
15. Positive
16. Negative
- ✓ 17. Force \times displacement
18. Energy
19. scalar
20. $\frac{1}{2} mv^2$ (m - mass, v - velocity)
21. Power
22. Work, time
23. vibration
24. longitudinal
25. compressions, rarefactions
26. energy, particles of medium
27. vacuum
28. oscillation
29. wavelength
30. time period
31. frequency
- 31(a) 1, time period
- 31(b) Wavelength \times Frequency
32. nature, temperature
33. equal angles, same
34. 0.1 s
35. reflection, reverberation
36. wave properties
37. Loudness

- 38. intensity of sound
- 39. 20 Hz – 20 kHz
- 40. Infrasonic, ultrasonic
- 41. Ultrasonic
- 42. SONAR
- 43. Periodic
- 44. Second
- 45. Frequency
- 46. Hertz
- 47. Frequency
- 48. wave pulse
- 49. wave velocity
- 50. Wave number
- 51. Wavelength