

## ECAT Physics Chapter 8 Waves

| Sr | Questions   | Answers Choice  |
|----|---|---|
| 1  | Velocity of sound in vacuum (in m/s) is   | A. 330<br>B. 1000<br>C. 156<br>D. 0   |
| 2  | The waves which propagate by the collision of material particles are known as               | A. e.m. waves<br>B. mechanical waves<br>C. light waves<br>D. microwaves   |
| 3  | Velocity of sound in a diatomic as is 300 m/sec. what is its rms velocity?                  | A. 400 m/sec<br>B. 40 m/sec<br>C. 430 m/sec<br>D. 300 m/sec   |
| 4  | Crests and troughs are formed in:   | A. Longitudinal waves<br>B. Transverse waves<br>C. Both of these<br>D. None of these  |
| 5  | The total energy of spring mass system is   | A. zero<br>B. changing with time<br>C. constant<br>D. none of them  |
| 6  | To hear a clear echo, the reflecting surface must be at a minimum distance of               | A. 10 m<br>B. 16.5 m<br>C. 33 m<br>D. 66 m  |
| 7  | When two waves with same frequency and constant phase difference phase difference interfere | A. There is a gain of energy<br>B. There is a loss of energy<br>C. The energy is redistributed and the distribution changes with time<br>D. The energy is redistributed and the distribution remains constant with time                       |
| 8  | If the length of second pendulum becomes four times then its time period will become        | A. Four time<br>B. Two times<br>C. Six times<br>D. Eight times  |
| 9  | When the bob of simple pendulum is at extreme position, its K.E. will be                    | A. maximum<br>B. minimum<br>C. zero<br>D. all of them   |
| 10 | In the same medium, velocity of the wave:   | A. Goes on increasing<br>B. Remains constant<br>C. Goes on decreasing<br>D. None of these   |
| 11 | The phase determines the  | A. displacement<br>B. amplitude<br>C. frequency<br>D. state of motion of vibrating body   |
| 12 | A second's pendulum is a pendulum whose time period is                                      | A. 1 second<br>B. 2 seconds<br>C. 3 seconds<br>D. 4 seconds   |
| 13 | Two sources of sound are said to be coherent if   | A. They produce sounds of equal intensity<br>B. They produce sounds of equal frequency<br>C. They produce sound waves vibrating with the same phase<br>D. They produce sound waves with zero or constant phase difference all instant of time |
|    |   | A. free vibration   |

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| 14 | The vibrations of factory floor caused by the running of heavy machinery is an example of  | B. natural vibrations<br>C. forced vibrations<br>D. all of them   |
| 15 | SI unit of wave length is:   | A. Kilometer<br>B. Metre<br>C. Centimetre<br>D. Hertz   |
| 16 | In the formula for finding the speed of waves in the spring, unit of m in Sln units is:  | A. kg<br>B. kg-meter<br>C. kg/meter<br>D. Meter/kg  |
| 17 | A string is stretched between two points and is plucked at right angles to its length, the vibration produced is:                      | A. Longitudinal wave<br>B. Transverse wave<br>C. No vibration at all<br>D. None of them   |
| 18 | When a body is performing S.H.M., its acceleration is  | A. inversely proportional to the displacement<br>B. directly proportional to the applied force<br>C. directly proportional to the amplitude<br>D. directly proportional to the displacement but in opposite direction |
| 19 | If the amplitude of sound is doubled and the frequency reduced to one-fourth, the intensity of sound at the same point will be         | A. Increasing by a factor of 2<br>B. Decreasing by a factor of 2<br>C. Decreasing by a factor of 4<br>D. Unchanged  |
| 20 | At a certain instant a stationary transverse wave is found to have maximum kinetic energy. The appearance of string of that instant is | A. Sinusoidal shape with amplitude $A/3$<br>B. Sinusoidal shape with amplitude $A/2$<br>C. Sinusoidal shape with amplitude $A$<br>D. Straight line  |