Wave Properties Questions for GCSE Physics

1. Define the term "amplitude."

2. A wave has a frequency of 10 Hz. What is its period?

3. What is meant by the frequency of a wave?

4. What is a transverse wave? Give one example.

5. What is a longitudinal wave? Give one example.

6. If the period of a wave is 0.2 seconds, calculate its frequency.

7. A wave has a wavelength of 5 meters and a frequency of 2 Hz. What is its speed?

8. Explain the difference between frequency and period.

9. If the amplitude of a wave increases, what happens to the energy of the wave?

10. If a wave travels at 340 m/s and has a frequency of 170 Hz, what is its wavelength?

11. A wave travels with a speed of 300 m/s and a wavelength of 0.5 meters. Calculate its frequency.

12. A sound wave has a frequency of 500 Hz and a wavelength of 0.68 meters. Calculate its speed.

13. A water wave has a wavelength of 3 meters and a speed of 1.5 m/s. Calculate its frequency.

14. The period of a wave is 0.05 seconds. What is the frequency?

15. A wave has a frequency of 5 Hz and travels at 15 m/s. Calculate the wavelength.

16. A wave traveling in water has a wavelength of 4 meters and a period of 0.2 seconds. Calculate its speed.

17. A light wave in a vacuum has a speed of 3×10^{8} m/s and a frequency of 6×10^{14} Hz. Calculate its wavelength.

18. A sound wave travels at 330 m/s in air. If the wavelength is 0.75 m, what is the frequency?

19. A radio wave travels at 3×10^{8} m/s with a wavelength of 100 meters. Determine the period of this wave.

20. An ultrasound wave in soft tissue travels at 1540 m/s. If its wavelength is 3.0 millimeters, calculate the period of the wave.