model questions on chapter 8 waves

1. The wave propagates in	**sinusoidal wave**
2. it is the time required to make complete cycle.	**Periodic time**
3. units of periodic time	**Second [s]**
4. It is the distance from one peak to the next peak	**Wavelength (λ)**
5. It is the distance between two crests or two trough	
6. Units of wavelength	**Meter [m]**
7. It is the number of cycle per unit time (second)	**Frequency**
8. Unit of frequency	**[Hz] [s⁻¹]**
9. The speed at which the crest or trough moves	**Wave speed (vwave)**
10. The arrangement of the cosine function in the mathematical expression for wave.	**Phase**
11. The relation between the wave speed and the wavelength and the frequency is	**vwave = f x λ**
12. The frequency is …………………….. proportional to the periodic time	**Inversely**
13. The frequency is …………………….. proportional to the wavelength	**Inversely**
14. The wavelength is ………………………proportional to the periodic time	**Directly**
15. A wave has a wave length of 0.003 cm and its speed is 345 m^{s-1}. Find the frequency of the wave?	f = **vwave / λ = 345/ (3x10⁻⁵) = 1.15 x10⁷ Hz**
16. There are two Types of wave	**Transvers wave** **Longitudinal wave**
18. The medium oscillates in a direction perpendicular to the direction of propagation	**Transvers wave**
17. The medium oscillates in a direction parallel to the direction of propagation	**Longitudinal wave**
18. It is an addition of or more waves, the displacement of the waves added like scalars at each point in space	**Superposition**
19. It is superposition of two waves that have the same wavelength, frequency.	**Interference**
20. There are two kinds of Interference	**Constructive interference** **Destructive interference**
21. The two wave should have the same wavelength, frequency and the same phase.	**Constructive interference**
22. The two waves should have the same wavelength, frequency but out of phase.	**Destructive interference**
23. The wave form	**Y=A cos [$\frac{2\pi}{\lambda}$ x $\pm 2\pi f$ t]**
24. It is a superposition of more than one wave with different frequency.	**Beats**
25. In the case of reflection if the attached point is fixed	**π phase change**

| 26. It occurs when two waves have the same wavelength (frequency) and the same speed are travelling in opposite direction through the same medium | **Standing wave** |