# PPSC Physics Chapter 5 Waves and Wave Properties of Light

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | All particles, of a wave front vibrate | A. In same phase<br>B. In opposite phase<br>C. Upward down<br>D. Left and right |
| 2 | Huygen's wave theory falls to explain | A. Diffraction<br>B. polarization<br>C. Interference<br>D. Refraction |
| 3 | If in Young's double slit experiments the separation between two slits is halved then the fringe width | A. Remains unchanged<br>B. Becomes double<br>C. Reduces to half<br>D. Becomes 3 times |
| 4 | Maximum number of orders available with a grating is. | A. Independent of grating element<br>B. Directly proportional to grating element<br>C. Inversely proportional to grating element<br>D. Directly proportional to wavelength |
| 5 | The fact that the edge of a shadow formed by a point source of light shining on an object is not sharp is an example of. | A. Refraction<br>B. Diffraction<br>C. Polarization<br>D. Dispersion |
| 6 | When white light is incident on a diffraction grating, the light that will eb deviated from central image will be. | A. White<br>B. Yellow<br>C. Red<br>D. Blue |
| 7 | A point source of light is situated at large distance The nature of the wave front at the point will be. | A. Cylindrical<br>B. Spherical<br>C. Plane<br>D. Ellipical |
| 8 | Polarization is characteristic of. | A. Light wave<br>B. sound waves<br>C. Waver waves<br>D. x-rays |
| 9 | The wave phenomenon that classifies light as a transverse wave is. | A. Polarization<br>B. Diffraction<br>C. Interference<br>D. Refraction |
| 10 | Light from the sun reaches the earth in | A. Spherical wave fronts<br>B. Cylindrical wave fronts<br>C. Plane wave fronts<br>D. Packets |
| 11 | The fundamental frequency of a sound source is 256 Hz. What is the frequency of the first harmonic. | A. 64<br>B. 128<br>C. 256<br>D. 512 |
| 12 | Three tuning forks of frequencies 400 Hz. 401 Hz and 402 Hz are sounded together The frequency of beats per sound is. | A. 0<br>B. 1<br>C. 2<br>D. 3 |
| 13 | Two tuning forks have same natural frequency One of them is now loaded with wax. When both the forks are sounded together the will | A. Produce interference<br>B. Produce vibrations<br>C. Remain in resonance<br>D. Produce beats |
| 14 | When temperature increases, frequency of an organ pipe | A. Decreases<br>B. Increases<br>C. Remain the same<br>D. Become zero |
| 15 | When the source and observer are moving away from each other the apparent pitch will | A. Increases<br>B. Decreases<br>C. Be zero |

| | | |
|---|---|---|
| | | D. Be infinite |
| 16 | For polarization , the direction of oscillation has to be perpendicular to the direction of travel sound waves are longitudinal waves so they cannot be. | A. Reflected<br>B. Deflected<br>C. Diffracted<br>D. polarized |
| 17 | Stationary waves are produced when two identical waves are moving on the string. | A. Along the same direction<br>B. Along the opposite direction<br>C. Along the perpendicular direction<br>D. Of length 1 m |
| 18 | Two tuning forks of frequencies 260 Hz and 257 Hz are sounded together the number of beats produced per seconds is. | A. 1<br>B. 3<br>C. 4<br>D. 257 |
| 19 | Beats are the results of. | A. Diffraction of sound waves<br>B. Interference<br>C. Polarization<br>D. Timber |
| 20 | Ultra sonics are the | A. Frequencies in the audible range<br>B. Frequencies greater than 20 Hz<br>C. Frequencies greater than 20 KHz<br>D. Frequency lower than 20 KHz |