

## Physics ICS Part 1 Chapter 8 Online Test

| Sr | Questions   | Answers Choice  |
|----|---|---|
| 1  | What are gravitational waves.   | <p>A. &lt;p&gt;Electromagnetic waves&lt;/p&gt;<br/>           B. &lt;p&gt;Mechanical waves&lt;/p&gt;<br/>           C. &lt;p&gt;Ocean waves&lt;/p&gt;<br/>           D. &lt;p&gt;Ripple in the fabric of spacetime&lt;/p&gt;</p>  |
| 2  | The process of confining the beam of light to vibrate in one plane is called. | <p>A. &lt;p&gt;Interference&lt;/p&gt;<br/>           B. &lt;p&gt;Diffraction&lt;/p&gt;<br/>           C. &lt;p&gt;Polarization&lt;/p&gt;<br/>           D. &lt;p&gt;Total internal reflection&lt;/p&gt;</p>   |
| 3  | Optically active crystals are   | <p>A. &lt;p&gt;Quartz&lt;/p&gt;<br/>           B. &lt;p&gt;Sodium Chlorate&lt;/p&gt;<br/>           C. &lt;p&gt;Sodium Chloride&lt;/p&gt;<br/>           D. &lt;p&gt;Both a and b&lt;/p&gt;</p>   |
| 4  | The unwanted light that interferes with vision is termed as.                  | <p>A. &lt;p&gt;Haze&lt;/p&gt;<br/>           B. &lt;p&gt;glare&lt;/p&gt;<br/>           C. &lt;p&gt;contrast&lt;/p&gt;<br/>           D. &lt;p&gt;Flare&lt;/p&gt;</p>   |
| 5  | An unpolarized beam of transverse wave is that whose vibrations.              | <p>A. &lt;p&gt;Are confined to a single plane&lt;/p&gt;<br/>           B. &lt;p&gt;Takes place in direction perpendicular to their direction of propagation&lt;/p&gt;<br/>           C. &lt;p&gt;Takes place in all direction&lt;/p&gt;<br/>           D. &lt;p&gt;Take place in direction parallel to the direction of propagation&lt;/p&gt;</p> |
| 6  | The key purpose of an analyzer in a polarization experiment is.               | <p>A. &lt;p&gt;To polarize the light&lt;/p&gt;<br/>           B. &lt;p&gt;To measure the intensity of light&lt;/p&gt;<br/>           C. &lt;p&gt;To change the direction of light&lt;/p&gt;<br/>           D. &lt;p&gt;To filter out unwanted light&lt;/p&gt;</p>   |
| 7  | Polarized sun glasses decrease glare on sunny day because they.               | <p>A. &lt;p&gt;Completely absorb the light&lt;/p&gt;<br/>           B. &lt;p&gt;Have a special colour&lt;/p&gt;<br/>           C. &lt;p&gt;Refract the light&lt;/p&gt;<br/>           D. &lt;p&gt;Block a portion of light&lt;/p&gt;</p>  |
| 8  | Who predicted the existence of gravitational waves.                           | <p>A. &lt;p&gt;Galileo Galilei&lt;/p&gt;<br/>           B. &lt;p&gt;Albert Einstein&lt;/p&gt;<br/>           C. &lt;p&gt;Issac Newton&lt;/p&gt;<br/>           D. &lt;p&gt;Leonardo da Vinci&lt;/p&gt;</p>  |
| 9  | A polaroid is.  | <p>A. &lt;p&gt;A device used in polarimeter&lt;/p&gt;<br/>           B. &lt;p&gt;A light filter&lt;/p&gt;<br/>           C. &lt;p&gt;A device used to analyze polarized light&lt;/p&gt;<br/>           D. &lt;p&gt;All of these&lt;/p&gt;</p>   |
| 10 | Which of the following rays cannot be polarized.                              | <p>A. &lt;p&gt;Sound Waves&lt;/p&gt;<br/>           B. &lt;p&gt;Light Waves&lt;/p&gt;<br/>           C. &lt;p&gt;X-Rays&lt;/p&gt;<br/>           D. &lt;p&gt;Infrared rays&lt;/p&gt;</p>  |
| 11 | To distinguish between transverse and longitudinal wave.....is used.          | <p>A. &lt;p&gt;Polarization&lt;/p&gt;<br/>           B. &lt;p&gt;Refraction&lt;/p&gt;<br/>           C. &lt;p&gt;Interference&lt;/p&gt;<br/>           D. &lt;p&gt;Diffraction&lt;/p&gt;</p>  |
| 12 | Bending of light around the edges of an obstacle is called.                   | <p>A. &lt;p&gt;Refraction&lt;/p&gt;<br/>           B. &lt;p&gt;Polarization&lt;/p&gt;<br/>           C. &lt;p&gt;Diffraction&lt;/p&gt;<br/>           D. &lt;p&gt;Interference&lt;/p&gt;</p>  |
| 13 | Which of the following is a primary source of gravitational waves.            | <p>A. &lt;p&gt;Binary black hole merger&lt;/p&gt;<br/>           B. &lt;p&gt;Solar flares&lt;/p&gt;<br/>           C. &lt;p&gt;Earthquake&lt;/p&gt;<br/>           D. &lt;p&gt;Supernova&lt;/p&gt;</p>  |

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|    |  | D. <p>Solar wind</p>  |
| 14 | Longitudinal waves do not exhibit.   | A. <p>Polarization</p><br>B. <p>Reflection</p><br>C. <p>Diffraction</p><br>D. <p>Refraction</p>   |
| 15 | The effect of increasing the angle between the light wave and the analyzer on the intensity of light is. | A. <p>The intensity increases</p><br>B. <p>The intensity of decreases</p><br>C. <p>The intensity remains the same</p><br>D. <p>The intensity becomes zero</p>   |
| 16 | Which is the primary method used to detect gravitational waves.  | A. <p>Optical telescopes</p><br>B. <p>Radio telescopes</p><br>C. <p>LASER interferometry</p><br>D. <p>Gravitational lensing</p>   |
| 17 | Malus's law states that  | A. <p>The intensity of light is directly proportional to the square of the cosine of the angle between the light wave and the analyzer</p><br>B. <p>The intensity of light is directly proportional to the square of the sine of the angle between the light wave and the analyzer</p><br>C. <p>The intensity of light is directly proportional to the angle between the light wave and the analyzer</p><br>D. <p>The intensity of light is inversely proportional to the angle between the light wave and the analyzer</p> |
| 18 | The intensity of light when it passes through a polarizer.   | A. <p>Decreases</p><br>B. <p>Increases</p><br>D. <p>Remain same</p><br>E. <p>Become Zero</p>  |
| 19 | We can polarize the light by passing it through.   | A. <p>Water</p><br>B. <p>Polaroid</p><br>C. <p>Glass</p><br>D. <p>Prism</p>   |
| 20 | The condition of maximum intensity of light in a polarization experiment is when.                        | A. <p>The light wave and analyzer are perpendicular</p><br>B. <p>The light wave and analyzer are parallel</p><br>C. <p>The light wave and analyzer are at an angle of $45^\circ$ </p><br>D. <p>The light wave and analyzer are at an angle of $60^\circ$ </p>   |