

Physics ICS Part 1 Chapter 8 Online Test

Sr	Questions	Answers Choice
1	The condition of maximum intensity of light in a polarization experiment is when.	<p>A. The light wave and analyzer are perpendicular</p> <p>B. The light wave and analyzer are parallel</p> <p>C. The light wave and analyzer are at an angle of 45°</p> <p>D. The light wave and analyzer are at an angle of 60°</p>
2	Malus's law states that	<p>A. The intensity of light is directly proportional to the square of the cosine of the angle between the light wave and the analyzer</p> <p>B. The intensity of light is directly proportional to the square of the sine of the angle between the light wave and the analyzer</p> <p>C. The intensity of light is directly proportional to the angle between the light wave and the analyzer</p> <p>D. The intensity of light is inversely proportional to the angle between the light wave and the analyzer</p>
3	Which of the following is a primary source of gravitational waves.	<p>A. Binary black hole merger</p> <p>B. Solar flares</p> <p>C. Earthquake</p> <p>D. Solar wind</p>
4	The intensity of light when it passes through a polarizer.	<p>A. Decreases</p> <p>B. Increases</p> <p>C. Remains the same</p> <p>D. Becomes zero</p>
5	What are gravitational waves.	<p>A. Electromagnetic waves</p> <p>B. Mechanical waves</p> <p>C. Ocean waves</p> <p>D. Ripple in the fabric of spacetime</p>
6	Who predicted the existence of gravitational waves.	<p>A. Galileo Galilei</p> <p>B. Albert Einstein</p> <p>C. Issac Newton</p> <p>D. Leonardo da Vinci</p>
7	We can polarize the light by passing it through.	<p>A. Water</p> <p>B. Polaroid</p> <p>C. Glass</p> <p>D. Prism</p>
8	Optically active crystals are	<p>A. Quartz</p> <p>B. Sodium Chlorate</p> <p>C. Sodium Chloride</p> <p>D. Both a and b</p>
9	Bending of light around the edges of an obstacle is called.	<p>A. Refraction</p> <p>B. Polarization</p> <p>C. Diffraction</p> <p>D. Interference</p>
10	Longitudinal waves do not exhibit.	<p>A. Polarization</p> <p>B. Reflection</p> <p>C. Diffraction</p> <p>D. Refraction</p>
11	Polarized sunglasses decrease glare on sunny days because they.	<p>A. Completely absorb the light</p> <p>B. Have a special color</p> <p>C. Refract the light</p> <p>D. Block a portion of light</p>
		<p>A. To polarize the light</p> <p>B. To measure the intensity of light</p>

12	The key purpose of an analyzer in a polarization experiment is.	<p>light</p> <p>C. <p>To change the direction of light</p> <p>D. <p>To filter out unwanted light</p>
13	A polaroid is.	<p>A. <p>A device used in polarimeter</p> <p>B. <p>A light filter</p> <p>C. <p>A device used to analyze polarized light</p> <p>D. <p>All of these</p>
14	An unpolarized beam of transverse wave is that whose vibrations.	<p>A. <p>Are confined to a single plane</p> <p>B. <p>Takes place in direction perpendicular to their direction of propagation</p> <p>C. <p>Takes place in all direction</p> <p>D. <p>Take place in direction parallel to the direction of propagation</p>
15	The process of confining the beam of light to vibrate in one plane is called.	<p>A. <p>Interference</p> <p>B. <p>Diffraction</p> <p>C. <p>Polarization</p> <p>D. <p>Total internal reflection</p>
16	The mathematical representation of Malus's law is.	<p>A. $I = I_0 \cos^2 \theta$</p> <p>B. $I = I_0 \sin^2 \theta$</p> <p>C. $I = I_0 \tan^2 \theta$</p> <p>D. $I = I_0 \cot^2 \theta$</p>
17	To distinguish between transverse and longitudinal wave.....is used.	<p>A. <p>Polarization</p> <p>B. <p>Refraction</p> <p>C. <p>Interference</p> <p>D. <p>Diffraction</p>
18	Light can be polarized by	<p>A. <p>Selective absorption</p> <p>B. <p>Reflection</p> <p>C. <p>Scattering</p> <p>D. <p>All of these</p>
19	The phenomenon of polarization of light is	<p>A. <p>The process of scattering of light</p> <p>B. <p>The property of light to vibrate in a specific plane</p> <p>C. <p>The ability of light to travel in a straight line</p> <p>D. <p>The phenomenon of light changing colour</p>

Which is the primary method used to detect gravitational waves.

- A. <p>Optical telescopes</p>
 - B. <p>Radio telescopes</p>
 - C. <p>LASER interferometry</p>
 - D. <p>Gravitational lensing</p>
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