

MCQ1: Which of the following scientist explain the laws of reflection and refraction?

Answer: Huygens

MCQ2: Light travels in a _____ line

Answer: Straight

MCQ3: The pin hole camera works on the principle of _____.

Answer: Rectilinear propagation of light

MCQ4: The first scientist that completely measured the speed of light _____.

Answer: Fizeaus

MCQ5: Newton and Huygens theory of light is called _____.

Answer: Wave model

MCQ6: Young experiment shows that wavelength of visible light lies in the range _____.

Answer: 4000Å to 7000Å

MCQ7: A light wave is associated with changing _____

Answer: Electric and magnetic fields

MCQ8: In Maxwell's field equations ∞ represent _____.

Answer: Electrical conductivity

MCQ9: The symbols of ρ and J denote _____ and _____ in Maxwell's equation

Answer: free charge, conduction current density

MCQ10: One of the Maxwell's equation in a vacuum is given as denotes _____.

Answer: Magnetic permeability

MCQ11: X-rays was discovered in 1898 by _____.

Answer: Roentgen

MCQ12: The value electromagnetic wave was found by Maxwell as _____.

Answer: $3.41 \times 10^8 \text{ms}^{-1}$

MCQ13: By measuring the wavelength and frequency of electromagnetic waves, it was proved that light is an electromagnetic waves. This experiment was demonstrated by _____.

Answer: Hertz

MCQ14: The eye defect in which a man finds it difficult to see objects at long distances is called _____.

Answer: Myopia

MCQ15: Given that $E_{o1} = 2v_2/(v_2 + v_1)$ for electric field between two medium. If $v_2 > v_1$. It does suggest that _____.

Answer: the reflected wave will be in phase with incident

MCQ16: When an e.m wave passes from a rarer medium to a denser medium ($n_1 < n_2$), the ratio E_{oR}/E_{o1} will be negative physically it means that _____.

Answer: The reflected wave is 180 degree out of phase with the incident

MCQ17: Who among the following scientist demonstrated the existence of electromagnetic waves?

Answer: Bose, 1895

MCQ18: By measuring the wavelength and frequency of electromagnetic waves, it was proved that light is an electromagnetic waves. This experiment was demonstrated by _____.

Answer: Hertz

MCQ19: The zero wavelength approximation of wave optics is known as ____.

Answer: Geometrical optics

MCQ20: The quantity $L = \int n dl$ is called ____.

Answer: Optical path length

MCQ21: A plane electromagnetic wave can be classified as ____.

Answer: Transverse wave

MCQ22: What is the general characteristic of wave motion?

Answer: Wave carries energy

MCQ23: The major difference between Human eye and camera is ____.

Answer: Eye has no photo film

MCQ24: Gauss' divergence theorem relates:

Answer: Surface integral to volume integral

MCQ25: The ability of the eye lens to change its focal control is called ____.

Answer: Accommodation

MCQ26: The common eye defect of elderly people is called ____.

Answer: Presbyopia

MCQ27: The process by which our eyes automatically make adjustments by radial movement of two eyeballs is called ____.

Answer: Convergence

MCQ28: Although vision begins in the eye, but perception takes place in where?

Answer: Brain

MCQ29: The purple coloured photosensitive part of the retina is called ____.

Answer: Rhodopsin

MCQ30: The violet coloured photosensitive pigment of the retina is called ____.

Answer: Iodopsin

MCQ31: The two major factors that determines vision are ____.

Answer: Physical and physiological phenomena

MCQ32: The vector equation given by $\mathbf{S} = \mathbf{E} \times \mathbf{H}$ is called ____.

Answer: Stoke vector

MCQ33: The transparent window of the eye is called ____.

Answer: Cornea

MCQ34: From the vector \mathbf{S} , \mathbf{E} and \mathbf{H} are:

Answer: Mutually orthogonal

MCQ35: Which of the following equation is true about Poynting vector

Answer: $\mathbf{S} = \mathbf{E} \times \mathbf{H}$

FBQ1: In the electromagnetic spectrum, the region having values ranging from 1 to 10^6 m are referred to as ____ waves.

Answer: radio

FBQ2: Light exhibits ____ nature.

Answer: Dual

FBQ3: A ray of light chooses a path of extremum between two points is known as ____.

Answer: Fermat's principle

FBQ4: If an electromagnetic wave is incident from a denser medium on the

interface separating it from a rarer medium ($n_1 > n_2$) the ratio E_oR/E_oI is positive, it means
Answer: No phase change

FBQ5: The perceptual correlate for variations in wavelength is called _____.
Answer: hue

FBQ6: The ability to sense only general level of light is known as _____.
Answer: Photosensitivity

FBQ7: The amount of energy reaching a receiver or given cross sectional area per second is called _____.
Answer: Intensity

FBQ8: Red, _____, and blue are classified as primary colours .
Answer: green

FBQ9: When a monochromatic blue light is mixed with a monochromatic yellow light, we obtain
Answer: colourless grey

FBQ10: The opponent colour theory proposed that red, yellow, _____ and _____ colours as primary colours
Answer: green and blue

FBQ11: _____ of light involves the formation of sharp images and their interpretation.
Answer: Perception

FBQ12: The _____ cannot see under water because the refractive index of cornea is greater than the water.
Answer: human eye

FBQ13: The two major factors that determines vision are _____.
Answer: physical and physiological phenoma

FBQ14: _____ wave cannot be polarised.
Answer: sound

FBQ15: When the sun is 37° above the horizontal, the light reflected by a lake should be completely _____.
Answer: linearly polarized

FBQ16: Which of the following specialization in medicine are responsible for the study of structure, functions and diseases of the eye
Answer: Ophthalmologist

FBQ17: Cellophane is used as polariser because is optically _____.
Answer: Anistropic

FBQ18: The process from the image formation to its perception by the brain is called
Answer: sensual process

FBQ19: When an incident unpolarised light splits into two rays inside the crystal, the ordinary ray gets totally reflected at the Canada balsam surface if the incident angle is _____.
Answer: 69°

FBQ20: The study of the structure, functions and diseases of the eye is called _____.
Answer: ophthalmology

FBQ21: Which animal is more acute in view _____.
Answer: eagle

Answer: Hawk

FBQ22: The process by which the eye adjusts to see the near and far objects is called _____.

Answer: accommodation

FBQ23: The aperture of a camera plays the same role as the _____ of the eye.

Answer: Iris

FBQ24: The amount of light energy reaching a receiver per given cross-sectional area every second is called _____.

Answer: Intensity

FBQ25: The amount of light reaching the eye directly from the source is called _____.

Answer: illuminance

FBQ26: Human eye can be referred as _____.

Answer: Sense of seeing

FBQ27: Light can be classified as _____.

Answer: Transverse electromagnetic wave

FBQ28: The five cells that can be found in the retina are called _____.

Answer: neuronal cells

FBQ29: The light sensitive pigments of photoreceptors are formed from_____.

Answer: Vitamin C

FBQ30: The fact that light travels at the speed of $3.0 \times 10^8 \text{ms}^{-1}$ is a consequence of_____.

Answer: Maxwell's law

FBQ31: The chemically synthesized polarisers are fabricated in the form of plastic sheets and are known as _____.

Answer: Polaroids

FBQ32: The _____ of Brewster angle is equal to the ratio of the refractive indices of the media at whose interface incident light is reflected.

Answer: Tan

FBQ33: The path difference between the o- and e- waves in a birefringent device depends on its _____.

Answer: Thickness

FBQ34: When light falls on a calcite crystal, it splits into _____.

Answer: 2

FBQ35: Which part of the human eye is responsible for the protection its inner parts and withstands the intraocular pressure in the eye?

Answer: Sclera