PHY103

Question: A convex lens is called _____.
Answer: converging lens

Question: A positive magnification greater than unity indicates _____.
Answer: virtual image

Question: _____ is formed through actual intersection of light rays and can be captured on a screen.
Answer: Real image

Question: Snell’s law states that the sine of the angle of incident and _____ have a constant ratio to each other.
Answer: reflection

Answer: Reflected

Question: _____ is defined as the distance between image and mirror.
Answer: Image distance

Question: When the object is placed at the focal point of a convex lens, the image is formed at _____.
Answer: Infinity

Question: The study of wavelengths of the radiation coming out from a hot body is called _____.
Answer: Spectra

Question: The angular magnification of a microscope in normal use is given by ___.
Answer: 1+(D/F)

Question: The _____ of a lens is a point through which rays of light pass through without being deviated by the lens.
Answer: Optical center

Answer: Optical centre

Question: When light vibrates in a single plane it is said to be____.
Answer: Polarized

Question: _____ acts as a muscular diaphragm of variable size that controls the size of pupil and also function to regulate the amount of light entering to the eye.
Answer: Iris

Question: The type of spectrum formed by white light produced when a solid material is heated to incandescence is called _____ spectrum.
Answer: continuous

Question: When white light passes through a prism, a spectrum of different colours is formed. The colour that represents the wave with the least frequency of the spectrum is _____.
Answer: Red

Question: Restrictions imposed on the free motion of a particle (or a system of particles) are generally called _____
Answer: Constraint

Question: The path along which light travels is called a _____.
Answer: Ray

Question: The normal is always _____ to the mirror.
Answer: perpendicular

Question: Light travels in _____ lines.
Answer: Straight

Question: _____ are drawn on light rays to show the direction in which light travels.
Answer: Arrows

Question: How many images will be formed in two plane mirrors which are inclined at angle 90^o to each other?
Answer: 3

Answer: Three

Question: _____ mirrors are used as rear view mirrors in automobiles.
Answer: Convex

Question: The angle of incident equals to the angle of reflection. This statement is referred to as _____ of reflection.
Answer: second law

Question: _____ is the distance between the optical center and the principal focal of the lens.
Answer: Focal length

Question: The _____ of a converging lens is the point to which all rays parallel and close to the principal axis converge after refraction through the lens.
Answer: Principal focus

Question: When light travels from a fast medium to a slower medium, the refracted ray changes phase by _____.
Answer: wavelength/3

Question: Diffraction effect is more for a _____ image.
Answer: sharp

Question: The image formed by an astronomical telescope is _____.
Answer: virtual and diminished

Question: _____ are drawn on light rays to show the direction in which light travels.
Answer: arrows

Answer: Arrow

Question: In regular reflection, parallel light rays remain _____after falling on a smooth and polished surface.
Answer: parallel

Question: Light travels in _____ lines.
Answer: Straight

Question: What is the refractive index of glass material for which the speed of light in it is m/s?
Answer: 1.56

Question: An image formed by a plane mirror is _____.
Answer: laterally inverted

Question: The central spot of Newtons rings is _____ due to destructive interference.
Answer: Dark

Question: A simple microscope uses_____.
Answer: one convex lens

Question: A compound microscope consists of _____.
Answer: two convex lenses

Question: A triangular glass block, which may be equilateral or isosceles, which can be used for refraction experiment is called the _____.
Answer: Prism

Question: Convex mirror is used in motor vehicle as side mirror because of _____.
Answer: Has a very wide field of view

Question: The SI unit of image magnification is _____.
Answer: No unit

Question: A beam of light may be _____.
Answer: Parallel

Question: A man has a concave mirror with focal length of 40cm. How far should the mirror be held from his face in order to give an image of two fold magnification?
Answer: 60cm

Question: A diverging mirror of 0.5 m focal length produces a virtual image of 0.25m from the mirror. How far from the mirror should the object be placed?
Answer: 0.5m

Question: Maximum deviation of prism occurs when angle of incidence is _____.
Answer: 90^0

Question: The refracting angle of a prism is 62^0 and the refractive index of the glass for yellow light is 1.65. What is the smallest possible angle of incidence of a ray of this yellow light which is transmitted without total reflection?
Answer: 43.58^0

Question: For a small angle prism, the deviation is independent of _____ .
Answer: Size of the angle of incidence

Question: One end of a cylindrical glass rod of refractive index 1.5 is a hemispherical surface of radius of curvature 20mm. An object is placed on the axis of the rod at 80mm to the left of the vertex of the angle of the surface. Determine the position of the image.
Answer: 120mm

Question: One end of a cylindrical glass rod of refractive index 1.5 is a hemispherical surface of radius of curvature 20mm. An object is placed on the axis of the rod at 80mm to the left of the vertex of the angle of the surface. Determine the position if the image of the rod is immersed in water of refractive index 1.33.
Answer: 184.6mm

Question: A convex lens is _____.
Answer: A converging lens

Question: The distance between the optical centre and the principal focal of the lens is called _____.
Answer: Focal Length

Question: The line joining the centres of curvature of the two curved surfaces forming the lens is called _____.
Answer: Principal axis

Question: When an object is placed at the principal focus of a convex lens, the image formed is _____.
Answer: at infinity

Question: A beam of light of wavelength 550nm travelling in air is incident on a surface of transparent material. The incident beam makes an angle of 60 degree with the normal and the
Answer: 1.23

Question: When the object distance for a convex lens is greater than 2F, the image formed is _____.
Answer: Inverted

Question: Image formed by concave lens is _____.
Answer: Virtual

Question: A pin is placed 40cm away from a convex lens of focal length 15cm. Determine the magnification of the pin formed by the lens .
Answer: 1.67

Question: The spreading of white light into the full spectrum is called _____.
Answer: Dispersion

Question: when a ray of light incident at an angle greater than the critical angle, the phenomenon is called _____.
Answer: Total internal reflection

Question: Submarine periscope uses the phenomenon of _____.
Answer: Total internal reflection

Question: The ability of the lens to focus on near and far objects is called _____.
Answer: Accommodation

Question: Appearance of colour in thin films is due to_____.
Answer: interference

Question: The experiment that shows that wavelength of light is smaller than that of sound is called_____.
Answer: Diffraction

Question: Examples of transverse wave are the following except:
Answer: P wave

Question: A compound microscope consists of two _____lenses.
Answer: Convex

Question: The advantage of reflector telescope over the normal telescope is _____.
Answer: Its large angle of magnification

Question: For two waves to superpose the waves must have the same _____.
Answer: Wavelength

Question: Constructive interference occurs, when the intensity of the two interfering waves is _____.
Answer: Maximum

Question: _____ are drawn on light rays to show the direction in which light travels.
Answer: Arrows

Question: A ray of light passing through the _____ retraces its path.
Answer: Centre of curvature

Question: The central spot of Newtons rings is _____ due to destructive interference.
Answer: Dark

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