

O P JINDAL SCHOOL, SAVITRINAGAR

ASSIGNMENT

CLASS X PHYSICS

- 11 The nature of image formed by a convex mirror when the object distance from the mirror is less than the distance between pole and focal point (F) of the mirror would be
- (a) real, inverted and diminished in size
 - (b) real, inverted and enlarged in size
 - (c) virtual, upright and diminished in size
 - (d) virtual, upright and enlarged in size
- 12 If a man's face is 25 cm in front of concave shaving mirror producing erect image 1.5 times the size of face, focal length of the mirror would be
- (a) 75 cm (b) 25 cm
 - (c) 15 cm (d) 60 cm
- 13 As light travels from a rarer to a denser medium it will have
- (a) increased velocity
 - (b) decreased velocity
 - (c) decreased wavelength
 - (d) both (b) and (c)
- 14 The angle of incidence i and refraction r are equal in a transparent slab when the value of i is
- (a) 0°
 - (b) 45°
 - (c) 90°
 - (d) depend on the material of the slab
- 15 The refractive index of transparent medium is greater than one because
- (a) Speed of light in vacuum $<$ speed of light in transparent medium
 - (b) Speed of light in vacuum $>$ speed of light in transparent medium
 - (c) Speed of light in vacuum = speed of light in transparent medium
 - (d) Frequency of light wave changes when it moves from rarer to denser medium
- 16 The refractive index of water is 1.33. The speed of light in water will be
- (a) 1.33×10^8 m/s (b) 3×10^8 m/s
 - (c) 2.26×10^8 m/s (d) 2.66×10^8 m/s

- 17 You are given three media A, B and C of refractive index 1.33, 1.65 and 1.46. The medium in which the light will travel fastest is
- (a) A
 - (b) B
 - (c) C
 - (d) equal in all three media
- 18 Light from the Sun falling on a convex lens will converge at a point called
- (a) centre of curvature
 - (b) focus
 - (c) radius of curvature
 - (d) optical centre
- 19 Large number of thin stripes of black paint are made on the surface of a convex lens of focal length 20 cm to catch the image of a white horse. The image will be
- (a) a zebra of black stripes
 - (b) a horse of black stripes
 - (c) a horse of less brightness
 - (d) a zebra of less brightness
- 20 A divergent lens will produce
- (a) always real image
 - (b) always virtual image
 - (c) both real and virtual image
 - (d) none of these