3. Refraction of Light at Plane Surfaces

1. Speed of light in vacuum is ____.
2. Mirage is an example of ____.
3. ____is the basic principle of optical fibre.
4. The unit of refractive index is ____.
5. The angle of refraction for critical angles is ____.
6. The critical angle of diamond is ____.
7. Refractive index of glass is 3/2. Then the speed of light in glass is ____.
8. $n_1 \sin i = n_2 \sin r$ is called ____.
9. A lemon kept in a glass of water appears to be ____
10. Refractive index of water is ____.
11. Speed of light of a medium depends upon ____ of the medium ( )

    a) Medium b) Optical Density c) Material d) Volume

12. Speed of light in vacuum is nearly equal to ( )

    a) 2×10^8 m/sec b) 0.3×10^8 m/sec c) 3×10^8 m/sec d) 4×10^8 m/sec

13. The critical angle of diamond is ( )

    a) 24.8º b) 24.4º c) 23.4º d) 22.4º

14. The angle of refraction for critical angle is ( )

    a) 60º b) 90º c) 80º d) 45º

15. In a glass slab, refraction takes place ____ times ( )

    a) 5 b) 2 c) 3 d) 4

16. The brilliance of diamond is due to ( )

    a) Refraction b) Reflection c) Interference d) Total internal Reflection

17. Refractive index of a medium depends on ( )

    a) Nature of material b) Wavelength of light used

    c) a and b d) None

18. When light ray travels from denser to rarer medium, the relation between r and i is ____ ( )

a) r = i b) r > i c) r < i d) r ≥ i

19. A lemon kept in a glass of water appears to be ( )

a) Bigger b) Smaller

c) Same size d) Some Times Bigger Sometimes Smaller

20. $\frac{n_2}{n_1} = \frac{\sin i}{\sin r}$ is called___ ( )

a) Snell's law b) Boyle's law c) Pascal's law d) Graham's law

Answers

1) 3×10^8 m/sec 2) Total Internal Reflection 3) Total internal Reflection

4) No units 5) 90º 6) 24.4º

7) 2×10^8 m/sec 8) Snell's law 9) Bigger

10) 1.33. 11) b 12) c

13) b 14) b 15) b

16) d 17) c 18) b

19) a 20) a