

21. Light travels slower in glass than in air because

refractive index of air is less than that of glass

refractive index of air is greater than that of glass

density of glass is greater than that of air

density of glass is less than that of air

Answer (c).

22. Sound moves with higher velocity if:

pressure of the of medium is decreased

temperature of the medium is increased

humidity of the medium is increased

both B and C above

Answer (d).

23. The visible light has a wavelength range from about 380 nm (violet) to 780 nm (red). If an excited object emits light with wavelength of 15 nm, to which one of the following ranges does it belong?

X-ray

Gamma ray

Infrared

Ultraviolet

Answer (d).

24. The audible frequency range of a human ear is

20 hertz to 200 hertz

2 hertz to 20 hertz

200 hertz to 2000 hertz

20 hertz to 20000 hertz

Answer (d).

25. In vacuum, the speed of light

depends on its wavelength

depends on its frequency

depends on its intensity

neither depends on its wavelength, frequency nor intensity

Answer (d).

26. Consider the following parts of spectra:

Visible

Infrared

Ultraviolet

Microwave

Which one of the following is the correct sequence in which their wavelengths increase?

4 - 3 - 1 - 2

4 - 1 - 2 - 3

3 - 2 - 1 - 4

3 - 1 - 2 - 4

Answer (d).

27. Propagation of light quanta may be described by

Photons

Protons

Neutrons

Electrons

Answer (a).

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