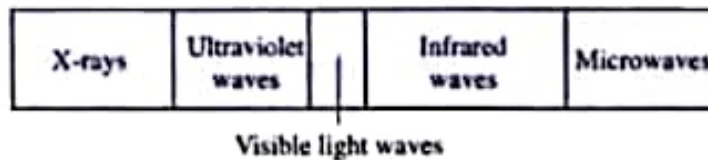


## Light diffraction

27. When a light wave passes through a slit that is narrow relative to the wavelength of light, the property that changes for the wave is .....
- a the speed
  - b the wavelength
  - c the frequency
  - d the direction of propagation

28. When light waves fall on different apertures of different sizes, it is expected that the diffraction of light will be most observable if the aperture size is .....
- a 1 m
  - b  $10^{-2}$  m
  - c  $10^{-3}$  m
  - d  $10^{-5}$  m

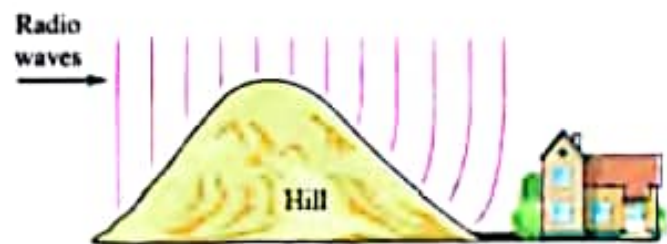
29. The following diagram represents a given range of the electromagnetic spectrum:



So, which of the following electromagnetic waves gives a more observable diffraction when it passes through a narrow slit?

- a Infrared waves
- b Microwaves
- c Ultraviolet waves
- d X-rays

30. The opposite figure represents a house below the level of a hill top receiving radio waves, so the reason which lets these waves reach the house is the phenomenon of .....



- a diffraction
- b interference
- c refraction
- d reflection

31. It is difficult to observe light diffraction in daily life because of .....

- a the high speed of visible light
- b the small frequencies of visible light
- c the short wavelengths of visible light
- d the high intensity of visible light