

Questions ?

Unit 1 | Lesson 8

Answered

Effect of Light and Solar Radiation on Aquatic Environments

First Multiple Choice Questions

Questions signed by * are answered in detail.

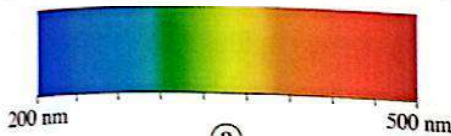
Interactive test



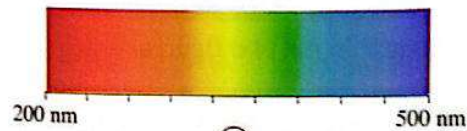
Solar radiation

- 1 In which of the following electromagnetic spectrum regions do the waves have the shortest wavelengths?
- (a) Radio waves. (b) Visible light. (c) X-rays. (d) Gamma rays.

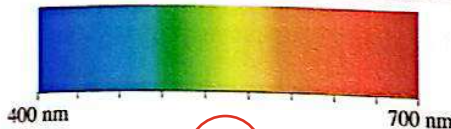
- 2 Which of the following figures correctly represents the range of wavelengths of the visible spectrum and the order of its colors?



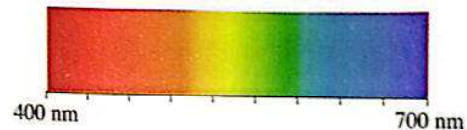
(a)



(b)



(c)



(d)

- 3 The opposite diagram shows four regions in the electromagnetic spectrum, which of the following choices represents regions (A) and (B), respectively?

Region (A)	Visible light	Ultraviolet rays	Region (B)
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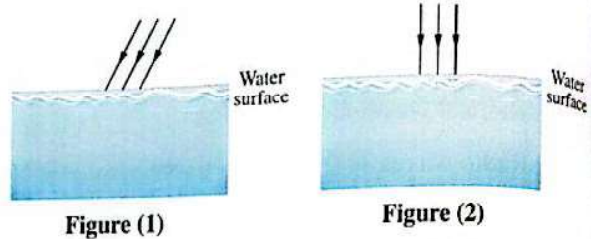
- (a) X-rays, Gamma rays. (b) Infrared rays, Radiowaves.
(c) X-rays, Infrared rays. (d) Infrared rays, X-rays.

- 4 The violet color has among the colors of the spectrum.

- (a) the highest frequency and the longest wavelength
(b) the highest frequency and the shortest wavelength
(c) the lowest frequency and the longest wavelength
(d) the lowest frequency and the shortest wavelength

- 5 Which two quantities of the following decrease in magnitude with increasing depth in the Red Sea water in summer?
- (a) Water density and its pressure.
 - (b) Water density and its temperature.
 - (c) Water temperature and its pressure.
 - (d) Water temperature and light intensity through it.

- 6 * Two beams of solar radiation of equal intensity are incident on the surface of water, one is inclined and the other is perpendicular, as shown in the opposite figures, so the reflected light energy from the surface will be



- (a) greater in figure (1)
- (b) greater in figure (2)
- (c) equal in the two figures
- (d) zero in the two figures

- 7 In water bodies, the photosynthesis process occurs primarily in
- (a) upper layer
 - (b) mid-depth layer
 - (c) deep layer
 - (d) all layers

- 8 When solar radiation passes through the surface layer of ocean water,
- (a) the longer wavelengths of visible light are firstly absorbed
 - (b) the shorter wavelengths of visible light are firstly absorbed
 - (c) all wavelengths of visible light are completely absorbed together
 - (d) none of the wavelengths of visible light is absorbed

- 9 The sea appears blue, among the reasons of that is
- (a) water does not absorb the wavelengths of blue light
 - (b) the water surface reflects the wavelengths of blue light
 - (c) the wavelengths of blue light penetrate deeper into water compared to other colors
 - (d) water absorbs the wavelengths of blue light first

- 10 When the light reaches a depth of 10 m below the ocean surface, water absorbs approximately of the visible light energy incident on the surface.
- (a) 20%
 - (b) 30%
 - (c) 40%
 - (d) 50%