Assignment 1

The due date for submitting this assignment has passed.

Due on 2021-02-03, 23:59 IST.

As per our records you have not submitted this assignment.

1) Which of the following is NOT an advantage of remote sensing?
   - Symptomatic view
   - Non-contact and non-invasive nature
   - Availability of data in difference portion of the EM spectrum
   - Provision for physical measurement
   Accepted Answers: Provision for physical measurement
   Score: 1
   Points: 1

2) If a body appears to be white to the human eye, then which portion of the electromagnetic spectrum is being reflected by the body?
   - Blue
   - Green
   - Red
   - All of the above
   Accepted Answers: All of the above
   Score: 1
   Points: 1

3) Among the following, select the wavelengths that belong to the visible portion of the electromagnetic spectrum (Choose all that apply)
   - 0.38 µm - 0.39 µm
   - 0.55µm - 0.56µm
   - 0.75nm - 0.85nm
   - 0.03 µm - 0.04µm
   Accepted Answers: All of the above
   Score: 1
   Points: 1

4) \( P = \lambda f \) is the wavelength and \( f \) is the frequency of an electromagnetic wave, then the velocity \( c \) of the wave is given by:
   a. \( c = \lambda f \)
   b. \( c = \sqrt{\lambda f} \)
   c. \( c = \lambda f^2 \)
   d. \( c = \lambda f^3 \)
   Accepted Answers: a
   Score: 1
   Points: 1

5) Choose the option that arranges the different portions of the electromagnetic spectrum in the decreasing order of their wavelengths.
   - Microwave, radio waves, visible, infrared, ultraviolet
   - Radio waves, microwave, infrared, visible, ultraviolet
   - Ultraviolet, infrared, visible, microwave, radio waves
   - Microwave, radio waves, visible, infrared, ultraviolet
   Accepted Answers: Microwave, radio waves, visible, infrared, ultraviolet
   Score: 1
   Points: 1

6) Using which law, the wavelength at which the maximum emission from a black body raises place cost is determined?
   - Stefan's displacement law
   - Wien’s displacement law
   - Planck’s law
   - Ray’s law
   Accepted Answers: Wien’s displacement law
   Score: 1
   Points: 1

7) Identify if the statement that follows is true or false. “At a given wavelength, the energy emitted by a body increases with increase in temperature.”
   - True
   - False
   Accepted Answers: True
   Score: 1
   Points: 1

8) If two waves, each having an amplitude of 3m are in-phase with each other, then the amplitude of the resultant wave due to interference of the two waves will be:
   - 3 m
   - 6 m
   - 1.5 m
   - 2 m
   Accepted Answers: 6 m
   Score: 1
   Points: 1

9) Polarization depth is defined as the depth at which the power of the wave is reduced to ____ times its initial value.
   - 0
   - 1/√2
   - 1/2
   - 1
   Accepted Answers: 1
   Score: 1
   Points: 1

10) The bands of the EMR spectrum where the atmosphere is fairly transparent and allows to see the earth are known as ____
    - Transmission bands
    - Atmospheric windows
    - Absorption bands
    - Transparent windows
    Accepted Answers: Atmospheric windows
    Score: 1
    Points: 1