Assignment 5

The due date for submitting this assignment has passed. Due on 2021-02-24, 23:59 IST.

As per our records you have not submitted this assignment.

1) In hyperspectral remote sensing, we have ________ number of contiguous bands, with ________ spectral bandlengths. 1 point
   - Small, narrower
   - Large, narrower
   - Small, broader
   - Large, broader
   No, the answer is incorrect. Source: 5
   Accepted Answers: Large, narrower

2) What of the following factors may effect that leaf additive reflectance that can happen at the canopy level? (Choose all the apply) 1 point
   - Leaf area
   - Type of leaves (e.g. broad leaf, needle-like leaf etc.)
   - Orientation of the leaves with respect to the incoming radiation
   - Leaf water content
   - Leaf pigments
   No, the answer is incorrect. Source: 7
   Accepted Answers: Leaf area
   Accepted Answers: Type of leaves (e.g. broad leaf, needle-like leaf etc.)
   Orientation of the leaves with respect to the incoming radiation
   Leaf water content
   Leaf pigments

3) If a square yard is located at the end of the slope of a solar radiation scanner, then which of these will be valid for the scanned image? 1 point
   - Its shape will not undergo any distortion
   - The square field may appear as a rectangle with the longer side oriented in the along track direction
   - The square field may appear as a rectangle with the longer side oriented in the across track direction
   - Cannot be determined
   No, the answer is incorrect. Source: 3
   Accepted Answers: The square field may appear as a rectangle with the longer side oriented in the along track direction
   The square field may appear as a rectangle with the longer side oriented in the across track direction
   Cannot be determined

4) In the NIR region, the spectral reflectance curve of vegetation is dependent mainly on ________ 1 point
   - Leaf pigments
   - Leaf structure
   - Leaf area
   No, the answer is incorrect. Source: 3
   Accepted Answers: Leaf pigments
   Accepted Answers: Leaf structure
   Accepted Answers: Leaf area

5) Why is healthy vegetation green in color? 1 point
   - Due to the high reflectance in its NIR portion.
   - Due to high absorption of blue and red energy and the high reflection of green energy by the plant leaves.
   - Due to high absorption of short wavelengths compared to longer wavelengths.
   - Due to high absorption of green energy by the plant leaves.
   No, the answer is incorrect. Source: 3
   Accepted Answers: Due to the high reflectance in its NIR portion.
   Due to high absorption of blue and red energy and the high reflection of green energy by the plant leaves.
   Due to high absorption of short wavelengths compared to longer wavelengths.

6) Select the incorrect statement(s) from the following (select all that apply). 1 point
   - Due to the presence of chlorophyll, the reflectance observed by the sensor is partly from vegetation.
   - Dull and small bands show higher BRF effects than green and NIR.
   No, the answer is incorrect. Source: 3
   Accepted Answers: Dull and small bands show higher BRF effects than green and NIR.

7) The unit of leaf area index is _______ 1 point
   - g/m²
   - m²
   - m³
   - m⁴
dimensionless
   No, the answer is incorrect. Source: 3
   Accepted Answers: dimensionless

8) The wavelength range used for the study of leaf water content in Landsat TM is _______ 1 point
   - 0.50 - 0.60
   - 0.60 - 0.80
   - 0.60 - 0.89
   - 0.70 - 0.89
   No, the answer is incorrect. Source: 3
   Accepted Answers: 0.60 - 0.80
   Accepted Answers: 0.60 - 0.89
   Accepted Answers: 0.70 - 0.89

9) In the spectral reflectance curve for vegetation obtained from satellite observations, characteristic dips due to atmospheric absorptions are present at what wavelengths? 1 point
   - 0.5, 1.2 and 2.0 µm
   - 0.5, 1.2 and 2.0 µm
   - 0.8, 1.3 and 2.3 µm
   - 1.1, 1.7 and 2.5 µm
   - 1.4, 1.9 and 2.7 µm
   No, the answer is incorrect. Source: 3
   Accepted Answers: 0.5, 1.2 and 2.0 µm
   Accepted Answers: 0.5, 1.2 and 2.0 µm
   Accepted Answers: 0.8, 1.3 and 2.3 µm
   Accepted Answers: 1.1, 1.7 and 2.5 µm
   Accepted Answers: 1.4, 1.9 and 2.7 µm

10) Identify if the statement that follows is true or false. “As we move away from the sun, the GFOV will increase only in the across-track direction.” 1 point
    - True
    - False
    No, the answer is incorrect. Source: 3
    Accepted Answers: True