Conservation Geography

Week 12

Due Date :15.10.2025

Click here

VISHVA S A

1) The time of flight for LiDAR is 0.00001 sec. Find the distance of the object from the instrument.

- ○ 500 m
- ○ 1000 m
- ◉ 1500 m
- ○ 2000 m

The correct option is: 1500 m.

Explanation:

The distance of the object from the instrument is 1500 m.

This is calculated using the formula:

$$\text{Distance} = \frac{(\text{Time of Flight}) \times (\text{Speed of Light})}{2}$$

With time of flight = 0.00001 s, is 1500 m.

2) Which of these uses imputed willingness to pay?

- ○ market price method
- ◉ replacement cost method
- ○ travel cost method
- ○ contingent valuation method

The correct option is: replacement cost method.

Explanation:

The replacement cost method uses imputed willingness to pay because it estimates the value of an environmental service or asset based on the cost of replacing it with a man-made or alternative solution. This value acts as a surrogate, or imputed, measure of what people would be willing to pay to maintain or restore the service, without asking them directly.

Conservation Geography

3) "The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas."

- ○ hazard
- ◉ exposure
- ○ vulnerability
- ○ disaster

The correct answer is: exposure.

Explanation:

Exposure refers to the situation or presence of people, infrastructure, housing, production capacities, and other tangible assets located in hazard-prone areas. It indicates what is at risk of being affected by a hazard event. In contrast, hazard is the potential damaging event itself, vulnerability is the susceptibility to damage, and disaster is the realized event causing significant harm.

4) "A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation." is a definition for

- ◉ hazard
- ○ exposure
- ○ vulnerability
- ○ disaster

The correct answer is: hazard.

Explanation:

A hazard is defined as a process, phenomenon, or human activity that may cause loss of life, injury, health impacts, property damage, social and economic disruption, or environmental degradation. It represents the potential source of harm or adverse effects.

Conservation Geography

5) "A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts." is a definition for

- ○ hazard
- ○ exposure
- ○ vulnerability
- ◉ disaster

The correct answer is: disaster.

Explanation:

A disaster is defined as a serious disruption of the functioning of a community or society due to hazardous events interacting with exposure, vulnerability, and capacity conditions. It leads to human, material, economic, and environmental losses and impacts, often overwhelming the affected community's ability to cope.

6) "The combination of all the strengths, attributes and resources available within an organisation, community or society to manage and reduce disaster risks and strengthen resilience." is a definition for

- ○ contingency
- ○ disaster management
- ○ vulnerability
- ◉ capacity

The correct answer is: capacity.

Explanation:

Capacity refers to all the strengths, attributes, and resources available within an organization, community, or society to manage and reduce disaster risks and strengthen resilience. It includes infrastructure, knowledge, skills, social relationships, leadership, and management that help cope with disasters effectively.

Conservation Geography

7) Bathymetric LiDAR uses

- ○ far infrared light
- ○ near infrared light
- ○ orange light
- ◉ green light

The correct answer is: green light.

Explanation:

Bathymetric LiDAR uses green light with a wavelength around 532 nm because green light penetrates water more effectively than other wavelengths such as near infrared or orange light. This allows the LiDAR system to measure the depth of water bodies and map underwater terrain accurately

8) IMU stands for

- ○ Imperial metering unit
- ○ Inertial metering unit
- ○ Imperial measurement unit
- ◉ Inertial measurement unit

The correct option is: Inertial Measurement Unit.

Explanation:

An Inertial Measurement Unit (IMU) is an electronic device that measures and reports a body's specific force, angular rate, and sometimes orientation using sensors such as accelerometers, gyroscopes, and occasionally magnetometers. It is widely used in navigation, motion tracking, and control systems across various applications including vehicles, aircraft, drones, and smartphones

Conservation Geography

9) Which of these is not a consumptive value?

- ○ timber
- ○ firewood
- ○ non-timber forest products
- ◉ education

The correct answer is: education.

Explanation:

Consumptive values involve direct use of forest resources that may deplete them, such as timber, firewood, and non-timber forest products. Education, on the other hand, is a non-consumptive value because it benefits people through knowledge gained from forests or nature without physically using up the resources.

10) The frequency of flyovers is an indicator of

- ○ spatial resolution
- ◉ temporal resolution
- ○ spectral resolution
- ○ radiometric resolution

The correct answer is: temporal resolution.

Explanation:

The frequency of flyovers refers to how often a sensor or satellite revisits the same area, which directly relates to temporal resolution. Temporal resolution is the ability to capture changes or events over time, so higher frequency flyovers mean better temporal resolution.