



Applied Remote Sensing Training (ARSET) Program

Introduction to Population Grids and their Integration with Remote Sensing Data for Sustainable Development and Disaster Management

Homework Questions

Question 1

SDG Indicator 9.1.1 is "Proportion of the rural population who live within 2 km of an all-season road", also known by the acronym RAI. What does RAI stand for?

Answers: (bold correct)

- a. Rural Access Indicator
- b. Road Accessibility Input
- c. Rural Access Index**

Question 2

Census data can create obstacles for applications such as sustainability or development, as they:

Answers: (bold correct)

- a. Are infrequent
- b. Miss people (inaccessibility, social constraints, language)
- c. Are summarized for large areas that change over time
- d. All of the above**

Question 3

Dasymetric Mapping is a type of areal interpolation to address zone incompatibility and aggregation (in choropleth maps).

Answers: (bold correct)

- a. **True**
- b. False

Question 4

POPGRID Viewer, the online visualization and intercomparison tool, currently contains _____ different population datasets.

Answers: (bold correct)

- a. 2
- b. 4
- c. 6
- d. **More than 8**

Question 5

This population dataset is a result of a collaboration between Facebook, CIESIN, and the World Bank.

Answers: (bold correct)

- a. Gridded Population of the World - Version 2
- b. **High Resolution Settlement Layer**
- c. Database of Global Administrative Areas (GADM)

Question 6

A limitation of the MOD Urban/Rural Areas dataset and its approach to RAI is a potential misalignment with national urban/rural delineation.

Answers: (bold correct)

- a. **True**
- b. False

Question 7

From the presentation in Part 2: Disaster Risk Reduction exposure data is developed by:

Answers: (bold correct)

- a. Collecting Census data
- b. Estimating building attributes
- c. Refining spatial distribution
- d. Estimating number of buildings
- e. Estimating replacement value
- f. All of the above**

Question 8

From the presentation in Part 2: Risk is defined as the Confluence of Hazard, Vulnerability, and _____.

Answers: (bold correct)

- a. Infrastructure
- b. Exposure**
- c. Flooding

Question 9

Advantages of using global datasets for SDG indicator 9.1.1, or RAI, include:

Answers: (bold correct)

- a. Standard inputs**
- b. Temporal comparisons**
- c. Automation**