1. What does land cover classification primarily describe?  
   a) How humans use the land  
   b) The physical material present on the land surface  
   c) Government land ownership  
   d) Soil fertility levels
2. Which of the following is NOT a typical land cover class?  
   a) Forest  
   b) Urban area  
   c) Cropland  
   d) Political boundary
3. What is the key difference between land cover and land use?  
   a) Land cover refers to physical features; land use refers to human activity  
   b) Land cover is always man-made; land use is natural  
   c) Land use is about vegetation; land cover is only water bodies  
   d) They are synonyms and mean the same thing
4. Which classification system uses a dichotomous key to define major land cover classes?  
   a) FAO Land Cover Classification System (LCCS)  
   b) National Soil Classification  
   c) Urban Planning Map  
   d) Climate Zones Classification
5. Which factor is NOT typically used as a classifier in land cover classification?  
   a) Presence of vegetation  
   b) Artificiality of cover  
   c) Soil pH level  
   d) Edaphic (soil-related) condition
6. What remote sensing data feature is often used to classify forest cover density?  
   a) NDVI (Normalized Difference Vegetation Index)  
   b) Soil moisture content  
   c) Road density  
   d) Temperature
7. In land capability classification, which class is generally suitable for intensive cultivation without special practices?  
   a) Class I  
   b) Class IV  
   c) Class VII  
   d) Class VIII
8. What technology advancement significantly improved land cover classification by providing multidimensional data?  
   a) Satellite remote sensing  
   b) Manual surveying  
   c) Paper maps  
   d) Drone photography only
9. Which of the following would be considered an anthropogenic (human-made) land cover type?  
   a) Urban and built-up areas  
   b) Natural grassland  
   c) Wetlands  
   d) Bare soil
10. Why is consistent land cover classification important?  
    a) To enable reliable environmental monitoring and resource management  
    b) To simplify land ownership disputes  
    c) To replace land use planning  
    d) To identify political boundaries only
11. What is the primary purpose of land cover change detection?  
    A. To monitor soil moisture content  
    B. To identify temporal changes in land cover  
    C. To measure atmospheric pollution  
    D. To map underground water resources
12. Which of the following is a common data source for land cover change detection?  
    A. Field surveys only  
    B. Satellite imagery and aerial photographs  
    C. Geological maps  
    D. Soil chemical analysis
13. Which of the following techniques involves comparing classified images from two different dates to detect change?  
    A. Supervised classification  
    B. Unsupervised classification  
    C. Post-classification comparison  
    D. Vegetation index calculation
14. NDVI (Normalized Difference Vegetation Index) is often used in change detection to:  
    A. Detect soil erosion  
    B. Monitor vegetation cover change  
    C. Identify urban areas  
    D. Measure rainfall intensity
15. In unsupervised classification for land cover change detection, the analyst:  
    A. Uses pre-defined training samples  
    B. Lets the computer automatically group pixels into classes  
    C. Performs a field survey to assign land cover types  
    D. Uses statistical regression to predict changes
16. Which of the following is a limitation of post-classification comparison in change detection?  
    A. It requires high-resolution satellite images  
    B. It is highly sensitive to classification errors in the individual images  
    C. It cannot detect urban expansion  
    D. It only works for NDVI data
17. Change detection using image differencing involves:  
    A. Subtracting pixel values of one date from another  
    B. Assigning land cover types using training data  
    C. Grouping pixels into clusters  
    D. Creating topographic indices
18. Which of the following indices is useful for detecting water body changes?  
    A. NDVI  
    B. NDWI (Normalized Difference Water Index)  
    C. SAVI  
    D. EVI
19. A major challenge in land cover change detection is:  
    A. Cloud cover in satellite images  
    B. Poor soil fertility  
    C. Lack of rainfall  
    D. Urban noise pollution
20. Which of the following is considered a supervised classification method for change detection?  
    A. ISODATA clustering  
    B. Maximum likelihood classification  
    C. Image differencing  
    D. Principal component analysis