

Advanced Cartographic Principles

Geography · Practice Test · 25 Questions

1. Which map projection is characterized by the preservation of true compass bearings between points, making it ideal for marine navigation?

- A) Mercator Projection
- B) Gall-Peters Projection
- C) Mollweide Projection
- D) Robinson Projection

2. On a map with a representative fraction of 1:50,000, how many kilometres does 1 centimetre on the map represent in the real world?

- A) 0.05 km
- B) 0.5 km
- C) 5 km
- D) 50 km

3. Which line of latitude is defined as approximately 23.5 degrees North of the Equator?

- A) Tropic of Capricorn
- B) Arctic Circle
- C) Tropic of Cancer
- D) Prime Meridian

4. What term describes the angular difference between true north and magnetic north at a specific location on Earth?

- A) Azimuth
- B) Declination
- C) Bearing
- D) Latitude

5. What is the primary visual technique used on a choropleth map to represent statistical data?

- A) Isolines
- B) Shaded regions based on data values
- C) Dot density symbols
- D) Flow arrows

6. Which grid coordinate system divides the Earth into 60 zones, each 6 degrees of longitude wide, and is commonly used for military and surveying purposes?

- A) Universal Transverse Mercator (UTM)
- B) Mercator Grid
- C) Lambert Conformal Conic
- D) WGS84

7. An isoline on a map connecting points of equal atmospheric pressure is known as what?

- A) Isohyet
- B) Isobar
- C) Isotherm
- D) Isohaline

8. Which map projection is classified as an 'equal-area' projection, famously known for representing the relative size of landmasses more accurately than the Mercator?

- A) Gall-Peters
- B) Robinson
- C) Mercator
- D) Miller Cylindrical

9. In cartography, what is the 'legend' or 'key' primarily responsible for?

- A) Defining the map projection
- B) Explaining symbols, colors, and patterns
- C) Identifying the cartographer
- D) Calculating the scale factor

10. Which type of map is specifically designed to show the physical relief of an area using contour lines?

- A) Thematic map
- B) Topographic map
- C) Cadastral map
- D) Mental map

11. What is the name of the vertical datum used as a reference point for measuring elevation above sea level?

- A) Mean Sea Level
- B) Geoid height
- C) Tidal prism
- D) Equatorial bulge

12. When reading a map, what does a 'large-scale' map typically show?

- A) A large area in low detail
- B) A small area in great detail
- C) The entire world
- D) Only political boundaries

13. Which instrument was historically used by cartographers to measure the altitude of celestial bodies to determine latitude?

- A) Sextant
- B) Compass
- C) Barometer
- D) Anemometer

14. Which of the following is an example of a qualitative thematic map?

- A) A map showing population density
- B) A map showing climate zones by color
- C) A map showing crop yield per hectare
- D) A map showing precipitation levels

15. What is the technical term for the art, science, and technology of making maps?

- A) Geography
- B) Geodesy
- C) Cartography
- D) Topography

16. On a map, what do 'hachures' represent?

- A) Political borders
- B) Relative slope steepness
- C) Water depth
- D) Road classifications

17. Which coordinate represents the angular distance measured north or south of the Equator?

- A) Longitude
- B) Latitude
- C) Prime Meridian
- D) Bearing

18. What is the reference line for measuring longitude, passing through Greenwich, England?

- A) The Equator
- B) The International Date Line
- C) The Prime Meridian
- D) The Tropic of Cancer

19. Which type of distortion is inherent in all flat maps of the Earth's surface?

- A) Distance, area, shape, or direction
- B) Only color accuracy
- C) Only elevation
- D) Only scale

20. A 'planimetric' map is distinct because it lacks which feature?

- A) Political boundaries
- B) Road networks
- C) Vertical relief data
- D) Latitude lines

21. What does the 'scale' of a map represent?

- A) The ratio of map distance to ground distance
- B) The total surface area of the map
- C) The degree of curvature of the Earth
- D) The date the map was created

22. Which map feature uses a series of closely spaced lines to indicate steep slopes?

- A) Contour lines
- B) Isotherms
- C) Hachures
- D) Meridians

23. What is the maximum value in degrees for longitude?

- A) 90 degrees
- B) 180 degrees
- C) 270 degrees
- D) 360 degrees

24. In a GPS context, how many satellites are typically required to provide a reliable 3D position (latitude, longitude, and altitude)?

- A) Two
- B) Three
- C) Four
- D) Seven

25. Which mapping term refers to a map that shows ownership boundaries and property lines?

- A) Topographic map
- B) Cadastral map
- C) Thematic map
- D) Hydrographic map