Exploring the World of Cartography

Geography/Cartography · Answer Key · 20 Questions

1. Which type of map projection is commonly used to represent the entire Earth with minimal distortion in polar regions?

A) Mercator Projection
B) Conic Projection
C) Azimuthal Equidistant Projection
D) Transverse Mercator Projection

2. In cartography, what is the term for the ratio of a distance on a map to the corresponding distance on the ground?

A) Scale
B) Legend
C) Contour Interval
D) Projection

3. What is the primary function of a map legend (or key)?

A) To show the direction of true north
B) To explain the symbols and colours used on the map
C) To indicate the map's scale
D) To identify the projection used

4. Which historical cartographer is famous for his map, the 'Mappa Mundi', created in the 13th century, which depicted the known world in a circular, T-O format?

A) Gerardus Mercator
B) Claudius Ptolemy
C) Al-Idrisi
D) Richard of Haldingham

5. Topographic maps are primarily used to represent which geographical feature?

A) Political boundaries
B) Population density
C) Surface elevation and terrain
D) Ocean currents

6. What does the term 'datum' refer to in cartography and surveying?

A) The colour scheme of a map
B) A reference point or surface used for measurements
C) The magnetic declination
D) The projected coordinate system

7. Which map projection is known for preserving the shapes of landmasses but significantly distorts their size, especially towards the poles?

A) Albers Equal-Area Conic
B) Lambert Conformal Conic
C) Mercator Projection
D) Mollweide Projection

8. What is the name for the imaginary lines that connect points of equal elevation on a topographic map?

A) Latitude lines
B) Longitude lines
C) Isotherms
D) Contour lines

9. Which of these is NOT a common type of thematic map?

A) Population density map
B) Physical map
C) Climate map
D) Economic activity map

10. In Geographic Information Systems (GIS), what is the term for a layer of spatial data that represents a specific type of feature, such as roads or rivers?

A) Attribute table
B) Raster layer
C) Vector layer
D) Metadata

11. What is the purpose of 'magnetic declination' on a map?

A) To indicate the direction of the magnetic pole from true north
B) To show the lines of equal magnetic variation
C) To represent the gravitational pull of the Earth
D) To define the map's coordinate system

12. Which map projection is often used for aeronautical charts because it maintains accurate direction and distance from a central point?

A) Gall-Peters Projection
B) Azimuthal Equidistant Projection
C) Robinson Projection
D) Sinusoidal Projection

13. What are 'isobars' on a weather map?

A) Lines connecting points of equal temperature
B) Lines connecting points of equal atmospheric pressure
C) Lines connecting points of equal precipitation
D) Lines connecting points of equal wind speed

14. The projection developed by Gerardus Mercator in 1569 is notable for its use in:

A) Representing polar regions with minimal distortion
B) Creating equal-area maps of continents
C) Nautical navigation due to rhumb lines being straight
D) Showing accurate landmass sizes

15. What does the 'Rosetta Stone' of cartography, the Ptolemaic maps from the 2nd century AD, help cartographers understand?

A) Modern GIS techniques
B) The principles of the Mercator projection
C) Ancient methods of surveying and coordinate systems
D) Satellite imagery interpretation

16. In cartographic design, 'hierarchy' refers to:

A) The number of colours used on a map
B) The arrangement of map elements to guide the viewer's eye
C) The precision of the map's scale
D) The geographic area covered by the map

17. Which type of scale representation is most useful for quickly comparing map distances to real-world distances without calculation?

A) Verbal scale (e.g., 1 cm to 1 km)
B) Representative fraction (e.g., 1:100,000)
C) Graphic scale (e.g., a bar scale)
D) Cartesian scale

18. What is the primary advantage of a raster map over a vector map for representing continuous phenomena like elevation or temperature?

A) It uses less storage space
B) It can represent gradients and smooth transitions more effectively
C) It allows for precise geometric measurements of features
D) It is easier to edit individual features

19. The development of the astrolabe and sextant in historical cartography facilitated:

A) Accurate measurement of distances on land
B) Precise determination of latitude and longitude at sea
C) The creation of highly detailed city maps
D) The understanding of magnetic declination

20. What is the term for the imaginary line that divides the Earth into the Northern and Southern Hemispheres?

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