## **Chapter 1: Practice Exam Questions**

- 1. A ratio of the number of items within a defined unit of area measures
  - (A) dispersion
  - (B) direction
  - (C) pattern
  - (D) density
  - (E) diffusion
- 2. Which of the following concepts refers to the spatial arrangement of items or features within a given area
  - (A) distribution
  - (B) direction
  - (C) accessibility
  - (D) trajectory
  - (E) scale
- 3. A method for representing the three-dimensional surface of the earth on the two-dimensional surface of a map is known as
  - (A) scale
  - (B) globalization
  - (C) proximity
  - (D) ethnography
  - (E) projection
- 4. The subjective image of an area informed by individual perceptions and experiences in that area is a
  - (A) thematic map
  - (B) reference map
  - (C) mental map
  - (D) contour map
  - (E) topographic map
- 5. The notion that the physical environment offers certain constraints and opportunities that influence cultural practices without entirely determining them is known as
  - (A) assimilation
  - (B) possibilism
  - (C) diffusion
  - (D) determinism
  - (E) divergence
- 6. The ability to travel and communicate over greater distances in shorter amounts of time, due to technological innovations such as the airplane, automobile, telephone, and Internet, represents the idea of
  - (A) time-space compression
  - (B) stimulus diffusion
  - (C) friction of distance
  - (D) relocation diffusion
  - (E) possibilism
- 7. During the process of mapmaking, in which the three-dimensional surface of the earth is projected onto a flat, two-dimensional surface, all of the following attributes can become distorted EXCEPT
  - (A) shape
  - (B) area
  - (C) distance
  - (D) direction
  - (E) relative location
- 8. Which of the following best describes the *site* of Mexico City?
  - (A) The most important financial and political center in Mexico
  - (B) An urban area located approximately two hours from Houston, Texas, by airplane
  - (C) A highland valley and dry lakebed located on a high plateau in southern central Mexico
  - (D) The federal district of Mexico
  - (E) An important node in a global system of flow of goods, information, and people

- 9. Relative to lines of latitude near the equator, lines of latitude near the poles are
  - (A) longer
  - (B) straighter
  - (C) shorter
  - (D) wider
  - (E) more accurate
- 10. The effect of Internet connectivity on global communication and business is that it
  - (A) increases the absolute distance between places
  - (B) decreases the absolute distance between places
  - (C) increases the distance decay between places
  - (D) decreases the relative distance between places
  - (E) decreases the Euclidean distance between places
- 11. The theory of environmental determinism generalizes a region's culture as being shaped by
  - (A) the combined influences of the physical geography of the region
  - (B) access to waterways for transport
  - (C) the population's choice of staple food crop
  - (D) the dominant religion of the region
  - (E) people's ability to live sustainably and prevent population pressure
- 12. What is most responsible for "hierarchical" diffusion, as opposed to "contagious" diffusion?
  - (A) Distance decay effects
  - (B) Special network links between major nodes
  - (C) Some people need multiple contacts before they adopt an innovation
  - (D) Proximity of the innovation to the major nodes of diffusion
  - (E) Relevance of particular innovations to only specific locations
- 13. How does the amount of generalization typically change when map scale decreases (i.e., changes from a larger scale to a smaller scale map)?
  - (A) That depends on whether it's a reference map or not.
  - (B) It decreases.
  - (C) It increases.
  - (D) It depends on the map scale.
  - (E) It does not change.
- 14. A perceptual region's boundaries are
  - (A) determined by a set of uniform physical or cultural characteristics across a particular area
  - (B) drawn around the functions that occur between a particular place and the surrounding area
  - (C) determined by the portion of a particular area that has been modified by human activities
  - (D) fuzzy because they allow for individual interpretation
  - (E) designated by the inclusion of a particular cultural characteristic
- 15. Geographic scale refers to
  - (A) the ratio between distance on a map and distance on Earth's surface.
  - (B) a conceptual hierarchy of spaces.
  - (C) a notion of place based on an individual's perception of space.
  - (D) the many ways that people define regions.
  - (E) the level of aggregation at which geographers investigate a particular process.
- 16. The Mercator projection preserves
  - (A) direction.
  - (B) area.
  - (C) shape.
  - (D) scale.
  - (E) distance.

- 17. Which of the following statements is most correct regarding the origins of geography?
  - (A) Geography was invented as a science in the late 18th century.
  - (B) Physical geography has been studied since ancient times, but human geography was first studied in the 20th century.
  - (C) Geography owes its existence to the Renaissance period in Western Europe.
  - (D) Humans have practiced geography at least since the time of ancient Greek civilization.
  - (E) Human geography was not practiced until powerful computers capable of mapping detailed information were invented.
- 18. According to the surviving evidence, the first person to write the word geography was
  - (A) Aristotle.
  - (B) Eratosthenes.
  - (C) Strabo.
  - (D) Thales of Miletus.
  - (E) Thucydides.
- 19. The International Date Line is measured approximately from
  - (A)  $0^{\circ}$  latitude.
  - (B)  $0^{\circ}$  longitude.
  - (C) 90° latitude.
  - (D) 180°longitude.
  - (E)  $90^{\circ}$  longitude.
- 20. You see the coordinates 5°E longitude, 10°N latitude. You do not need to look at a map in order to deduce that this location is
  - (A) near both the equator and the prime meridian.
  - (B) near the equator but quite far from the prime meridian.
  - (C) near the International Date Line as well as the North Pole.
  - (D) near the International Date Line and the prime meridian.
  - (E) near both the equator and the International Date Line.
- 21. If NASA sends a space probe into orbit around Mars, and that probe transmits images of the Martian surface back to Earth, we could say that
  - (A) the space probe is gathering surface data, but it cannot be described as engaging in remote sensing because this is an operation that, by definition, can only be accomplished from Earth orbit.
  - (B) the space probe is generating data for GPS.
  - (C) the space probe is engaging in remote sensing, although it is gathering data from a planet other than Earth.
  - (D) the probe is engaging in aerial photography, although it is taking its "pictures" from outer space.
  - (E) the USGS has programmed the space probe to mimic the work of Earth satellites.
- 22. Site identifies a place by its
  - (A) location relative to other objects and places.
  - (B) mathematical location on Earth's surface.
  - (C) nominal location.
  - (D) unique physical characteristics.
  - (E) primary dimensions.
- 23. Situation identifies a place by its
  - (A) location relative to other objects or places.
  - (B) mathematical location on Earth's surface.
  - (C) nominal location.
  - (D) unique, internal physical and cultural characteristics.
  - (E) primary dimensions.

- 24. The state of Texas is *best* considered a formal region because
  - (A) only one language is spoken in most of the cities of the region.
  - (B) the same state laws apply everywhere in the region.
  - (C) the climate is the same everywhere in the region.
  - (D) transportation systems converge in the major highways of the region.
  - (E) it is a part of the United States.
- 25. The South is established as a vernacular region of the United States by
  - (A) climate, low educational attainment, cotton production, and the prevalence of talk radio stations.
  - (B) climate, low high-school graduation rates, and the Roman Catholic and Baptist churches.
  - (C) low high school graduation rates, climate, cotton and corn (maize) production, and abuses of the rights of voters and minorities.
  - (D) high cotton production, high church attendance, the prevalence of right-wing talk radio stations, and limits placed on the civil rights of ethnic and racial minorities.
  - (E) climate, low educational attainment, cotton production, and the prevalence of Baptist churches.
- 26. The historic diffusion of HIV/AIDS in the United States is an example of which type of diffusion?
  - (A) contagious
  - (B) hierarchical
  - (C) relocation
  - (D) stimulus
  - (E) geospatial
- 27. The study of how humans and the environment interact is called
  - (A) environmental determinism.
  - (B) cultural ecology.
  - (C) cultural diffusion.
  - (D) cultural possibilism.
  - (E) natural science.
- 28. The first iPhone was sold in the US in 2007 for a price of \$599. As a result, its use was initially limited to those who could afford the high cost. This new technology spread first among those able to afford the initial cost and additional data plans from AT&T. What type of diffusion is this?
  - (A) relocation diffusion
  - (B) contagious diffusion
  - (C) stimulus diffusion
  - (D) economic diffusion
  - (E) hierarchical diffusion
- 29. McDonalds spread to more than 100 countries worldwide. However, each restaurant adapts to local cultures and customs. Indian Hindus do not eat beef, so in McDonalds in India, they serve veggie burgers because it is culturally acceptable. The idea of McDonalds burgers was acceptable, but not in its original form. What type of diffusion is this?
  - (A) relocation diffusion
  - (B) contagious diffusion
  - (C) stimulus diffusion
  - (D) economic diffusion
  - (E) hierarchical diffusion
- 30. The art and science of making maps is
  - (A) cardemography.
  - (B) cartography.
  - (C) topography.
  - (D) geomorphology.
  - (E) geography.

Q	A	Right	Wrong	Explanation
1	D			A ratio of the number of items within a defined unit of area measures density. For example, human population density is typically measured according to the number of inhabitants per square mile or square kilometer of land. Because it is a ratio of quantity per unit of area, density always expresses a relative value.
2	А			Distribution refers to the spatial arrangement of items or features within a given area. For instance, a map indicating the location of each national park in the United States would demonstrate how these parks are spatially distributed throughout the country. Spatial arrangements of certain items or features can be described in terms of even or uneven distributions across space. In the case that many items are located close to one another, it is possible to say that these items are clustered together.
3	Е			A method for representing the three-dimensional surface of the earth on a two- dimensional map is known as a projection. There are many different methods of map projection, including cylindrical, conical, and azimuthal projections. However, no single method of projection perfectly represents the three- dimensional surface of the earth.
4	С			A subjective image of an area informed by individual perceptions and experiences in that area is known as a mental map. Unlike other kinds of maps, which are typically material representations shared by multiple users, mental maps are highly personal images about a place composed of subjective perceptions, memories, biases, and feelings.
5	В			The notion that the physical environment offers certain constraints and opportunities that influence cultural practices without entirely determining them is known as possibilism. This idea stands contrary to the antiquated theory of environmental determinism, which posited that the physical environment absolutely determines how cultural practices develop in a give place. Possibilism, on the other hand, suggests that they physical environment offers certain possibilities that influence how a culture develops without absolutely determining this course of development.
6	А			The ability to travel and communicate over greater distances in shorter amounts of time, due to technological innovations such as the airplane, automobile, telephone, and Internet, represents the idea of time-space compression. Time-space compression describes how new communication and transportation technologies, such as the examples above, radically alter the way humans experience time and space. Typically this experience is one in which time seems to accelerate and distance becomes a less formidable barrier.
7	Е			During the process of mapmaking, shape, area, distance, and direction are all liable to become distorted. Unfortunately, there is no absolutely perfect way to project the three-dimensional surface of the earth onto a flat, two-dimensional surface. With every projection, either shape, area, distance, direction, or a combination of these inevitably becomes distorted. However, the location of geographical features relative to one another should <i>not</i> be affected during the mapmaking process.
8	С			The <i>site</i> of Mexico City is best described as a highland valley and dry lakebed located on a high plateau in southern central Mexico. While the remaining selections all accurately characterize Mexico City, they describe its situation rather than its site. Site refers to a place's local physical and environmental characteristics, while situation refers to a place's location relative to other places as well as its social significance in regional, national, or international contexts.

Q	Α	Right	Wrong	Explanation
				Relative to lines of latitude near the equator, lines of latitude near the poles are
9	С			shorter. This is the case because the overall circumference of the earth is
				smaller near the poles than at its center, near the equator.
				The effect of new technologies like the Internet (or historically, trains) is that
				they reduce the relative distance in time traveled between places as opposed to
	D			the absolute distance, which remains a constant length. The trick is to think
10				that your "relatives" come to visit you and thus reduce the time and distance
				between you and them, whereas you "absolutely" can't change the distance in
				road mils from their house to your home. Use process of elimination to
				eliminate (A) and (B).
	А			Simply put, the old scientific ideology or paradigm of environmental
				determinism was that "nature shapes culture." The idea that physical
11				geography – the combination of landforms, plants, soils, animals, oceans,
				climate, and weather – was different everywhere and resulted in different human adaptations to nature. Thus, cultures were different from place to place
				as a result.
				Hierarchical diffusion describes the spread of an innovation through specific
	В			nodes, which are not usually located close together in space, but exhibit strong
12				links to one another in a network. For example, fashion trends tend to diffuse
				hierarchically between major fashion nodes (e.g. Paris, London, Milan) before
				spreading contagiously to surrounding areas.
				Generalization, as it sounds, involves generalizing information or smoothing
				over details. As a map scale decreases, meaning going from a larger scale map
				to a smaller scale map, one sees a greater extent of land. For example, the
13	С			larger scale map may have shown al of Boston, but with a decrease in map
15	C			scale, the reader can now see all of Massachusetts. The allowance of greater
				geographic extent necessarily means that details will be lost. Going back to the
				example, by decreasing the map scale, the reader can no longer see the details
				of Boston.
	D			Perceptual regions are determined by commonly perceived characteristics of
14				particular places on Earth's surface. Different individuals have different ideas
				about where these characteristics begin and end. Thus the boundaries are
				necessarily fuzzy.
15	В			Geographic scale refers to a scale of analysis. It looks at phenomena through a hierarchy of scale such as neighborhoods, city, state, and nation.
				The Mercator projection accurately preserves compass direction. However,
	А			because the lines of longitude do not meet at the poles in the Mercator
16				projection as they do on the globe, area is distorted, with increasing inaccuracy
				at high latitudes.
				The ancient Greeks were among the first to use geography to explore new
17	D			trade routes to distant lands. Maps were used mostly as reference tools, to
				navigate.
10	р			Eratosthenes was the first person to record use of the word "geography." He
18	В			studied in Alexandria, Egypt and is known as the "father of geography."
	D			The International Date Line follows 180° longitude. If you cross this line
				moving eastward, you move the clock back 24 hours. If you cross this line
19				moving westward, you move the clock forward 24 hours. For the most part, the
1)				International Date Line follows the 180° meridian; however, there are several
				small islands that have moved their time zones to make for better economic
				relations.
				Both the equator and prime meridian measure positions beginning at 0°. Any
20	A			number near $0^{\circ}E/W$ must be very close to the prime meridian. Any number
				near 0°N/S must be very close to the equator.

Q	Α	Right	Wrong	Explanation
21	С			Remote sensing involves any acquisition of data from a satellite technology. This type of satellite can scan the surface of any planet and transmit the digital form to receiving stations on Earth's surface. The satellite sensors detect radiation being reflected from the surface and transform it into a grid containing many rows of pixels.
22	D			Site describes the physical character of a place. It can include features like climate, water sources, topography, soil, vegetation, latitude, and elevation. Any physical (land) feature that makes a location unique is describing the site. Some of the best site factors for settlement include river-crossings and hilltops.
23	А			Situation is the location of a place relative to other places. It is helpful in finding an unfamiliar place by comparing its location to a familiar one. This is often how we give directions when speaking with people. We use landmarks to direct people to where they are going.
24	В			A formal region is an area with a uniform, measurable set of characteristics. Formal regions often have distinct and visible boundaries. For example, Texas is a formal region because within its state's boundaries, everyone follows the same laws. Citizens all pay taxes to the same government and are subject to the same traffic laws. These characteristics are easy to identify and measure.
25	Е			A vernacular region is a much more informal region. These regions usually reflect cultural values or beliefs in an area. The South is characterized by a unique set of common environmental, cultural, and economic features that set it apart from the rest of the United States. High cotton production, low graduation rates, associations with the Confederacy, Baptist religion, and a warm climate make the South very unique.
26	С			Relocation diffusion is the spread of an idea or trait by through the physical movement of people from one place to another. The spread of AIDS requires human-to-human contact, and therefore, spreads through the movement of people who carry the virus.
27	В			Cultural ecology is concerned with how humans interact with their environment. It is a study that dates back 200 years, when scientists began traveling the globe to observe how people lived in different environments.
28	Е			Hierarchical diffusion spreads through certain nodes of authority or power before reaching the general population. In the case of the iPhone, high costs for a new gadget deterred most low- and middle-class consumers from purchasing the product initially. After costs lowered, along with the risk of investing in a new technology, the device began to spread more contagiously.
29	С			Stimulus diffusion is the spread of only a small piece of an idea or trait. In the case of McDonalds, the idea of the restaurant chain has spread globally; however, each culture adopts only pieces of the McDonald's menu. They supplement more American menu items with their own local food preferences.
30	В			Cartography is the art and science of mapmaking. Maps can be used as reference tools to navigate and as communication tools to depict the distribution of human activities and physical features.