

TOTAL: 100

NAME: \_\_\_\_\_

QUIZ #1

GEO 120-Peterson

All questions are worth 2 pts. unless otherwise indicated.

1. Define Graphicacy:
  
2. Any internal reflection of reality (or the environment) may be called a \_\_\_\_\_.
  
3. The results of a questionnaire were presented in class which suggested that many people avoid using maps. Approximtely what percentage of people could be classified as "Map Avoiders" based on the questionnaire? \_\_\_\_\_%.
  
4. List two reasons given in class for people not using maps.
  - a.
  - b.
  
5. \_\_\_\_\_ on maps reflects a compromise between the belief that everything in our environment is unique and the attitude that individual features only represent specific cases of general groupings.
  
6. When the observer assumes a vantage point directly above each mapped point simultaneously, the result is a \_\_\_\_\_ view. (planimetric, perspective, isometric, stereographic).
  
7. \_\_\_\_\_ on maps reflects a compromise between the belief that everything in our environment is unique and the attitude that individual features only represent specific cases of general groupings.

8. The purpose of \_\_\_\_\_ symbols is to produce symbols which map users will be able to recognize through natural association. (graphic, geometric, oblique, pictographic)
9. Smoothing (of rivers, roads, etc.) is one aspect of which one of the four cartographic abstraction processes?  
\_\_\_\_\_
10. What is the purpose of cartographic abstraction?
11. What are the four categories of cartographic abstraction?
  - 1.
  - 2.
  - 3.
  - 4.
12. What more than any other factor controls the degree of map abstraction?  
\_\_\_\_\_
13. What makes the study of the early history of cartography so difficult?
14. What were the two major cartographic accomplishments of Ptolomy?
15. The Hereford world map, made in the 13th century, illustrates the degree to which cartography had degenerated from the time of Ptolemy 1000 years earlier. It is the best known version of what type of map?  
\_\_\_\_\_
16. A type of relatively accurate map that appeared suddenly at the end of the 13th century probably in response to the needs of sailors.  
\_\_\_\_\_

17. The name of a conformal map projection developed in the 16th century and still used widely today.

\_\_\_\_\_

18. What forces led to the development of the T in O map?

19. What was the major advance for map production during the renaissance?

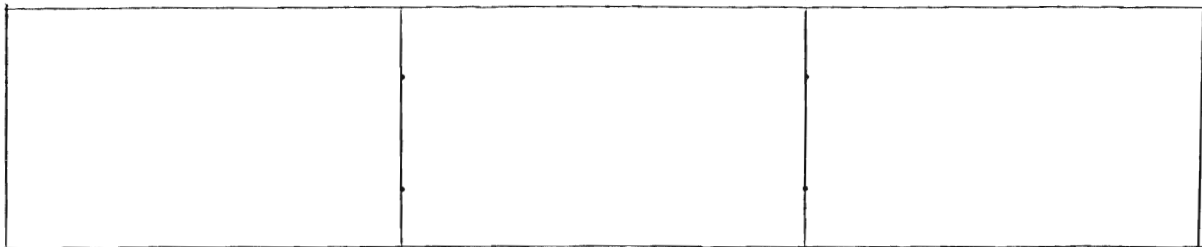
\_\_\_\_\_

20. The earth is not a perfect sphere. It is called a spheroid or ellipsoid because the polar axis is  $1/298.24$  shorter than the equatorial axis. This phenomenon is called \_\_\_\_\_.

21. The circumference of the earth is about  
15,000          25,000  
20,000          29,400      miles. (circle the correct answer)

22. A projection which retains relative sizes of areas is called \_\_\_\_\_ projection.

23. Draw the typical pattern of meridians and parallels for the following classes of projections.  
(2 pts. each)



azimuthal

conical

cylindrical

24. Parallels and meridians should meet at right angles and scale changes in one direction must be accompanied by equivalent changes in the opposite direction if the map is \_\_\_\_\_.

25. Any linear scale change in one direction must be accompanied by an opposite scale change in the opposite direction if the map is \_\_\_\_\_.

26. What type of map is the Mercator Projection? \_\_\_\_\_  
(conformal, equivalent)
27. Name the four "measurement levels" for geographic information and give an example of each.  
(8 pts.)
- | <u>measurement level:</u> | <u>example:</u> |
|---------------------------|-----------------|
| a.                        | a.              |
| b.                        | b.              |
| c.                        | c.              |
| d.                        | d.              |
- 

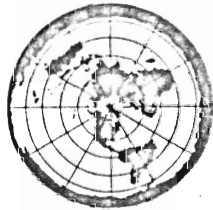
ESSAY QUESTIONS

(Write no more than half a page for each question. Use following page.)

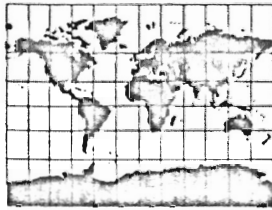
28. What were the distinctions made in class between (1) a map and a photograph, and (2) a map and a painting?  
(10 pts.)
29. Explain how Eratosthenes computed the circumference of the Earth.
30. Art, said Picasso, is a lie which shows us the truth. Explain why this is also true for maps.  
(10 pts.)
31. What is the importance of the relationship between maps and mental maps?  
(10 pts.).

32. Draw a map depicting the route you take from your current residence to this room. This map is meant to show how you have used the process of cartographic abstraction. In a separate table, indicate three areas or places where you employed each of the following concepts: (1) selection, (2) classification, (3) simplification, and (4) symbolization. (5 pts.)

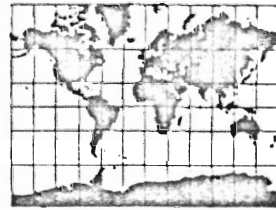
33. Provide the general or specific name for each of these projections.



\_\_\_\_\_



\_\_\_\_\_



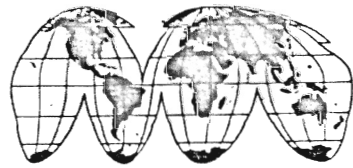
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

SECTION I. Fill in the sentence.

1. When we orient ourselves with respect to the external environment rather than relating everything to our own location then we have a \_\_\_\_\_ point of view.
2. Any internal reflection of the environment may be called a \_\_\_\_\_.
3. The position of maps on the gradient between reality and abstraction is closer to \_\_\_\_\_.
4. Give an example of a type of map symbolization which is based on convention.
5. One result of a \_\_\_\_\_ photomap is that the perspective may be changed from central to parallel.
6. When we observe every element of a distribution this is called a \_\_\_\_\_ inventory.
7. The idea behind \_\_\_\_\_ is to use a small part of the population to find out what you want to know about the larger population.
- 7a. This method may be used for \_\_\_\_\_ distributions when a population inventory is not feasible.
8. When the observer assumes a vantage point directly above each mapped point simultaneously the result leads to a process called \_\_\_\_\_ mapping.
9. \_\_\_\_\_ on maps reflects a compromise between the belief that everything in our environment is unique and the attitude that individual features only represent specific cases of general groupings.
10. The purpose of \_\_\_\_\_ symbols is to produce symbols which maps users will be able to recognize through natural association.
11. \_\_\_\_\_ is the collective term for any photographic or electronic scanner image of the earth's surface.

12. The greater the amount of light energy an object reflects through the camera lense, the (lighter, darker) its tone on the negative.

13. Vegetation tends to appear in bright tones on an infrared photo because maximum (reflection, absorbtion) occurs in this spectral band from vegetation.

14. The higher the \_\_\_\_\_ of an image, the more detail it shows.

15. The farther features are from the center of the photo, the greater their \_\_\_\_\_ displacement.

16. Physically altering the geometry of a photo creates a \_\_\_\_\_ photomap.

17. Differences in the return signal strength, which represent feature reflectance and orientation characteristics, appear as proportional grey tones on \_\_\_\_\_ images.

18. The orbit of a Landsat satellite is timed to pass over the same spot on the earth every \_\_\_\_\_ days.

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we can all be accused of egocentrism  
it's like seeing life through a prism  
it leads to a primitive type of mental map  
based on a system of \_\_\_\_\_ paths

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True / False

1. A photo taken at one mile above the ground will be at a smaller scale than a photo taken at an altitude of two miles (using the same camera). True or False

2. Photographs, in general, have the same scale characteristics as scanner images. True or False

3. SLAR images represent passive microwave sensing. True or False

II. Use the four measurement levels (nominal, ordinal, interval, ratio) to answer the following questions.

- a. land-water classification \_\_\_\_\_
  - b. temperature in Fahrenheit \_\_\_\_\_
  - c. associated with qualitative information \_\_\_\_\_
  - d. arbitrary zero value \_\_\_\_\_
  - e. city classification (small-medium-large) \_\_\_\_\_
  - f. time (years) \_\_\_\_\_
  - g. assumes true zero \_\_\_\_\_
  - h. characterized by greater than less than relations \_\_\_\_\_
- 

III. Essay questions. (Use following page, write no more than half a page for each of the two questions.)

1. Answer one of the following:

- A. Why would there be a difference in spatial abilities between males and females?
- B. Why are maps a neglected subject in our schools?

2. Answer one of the following:

- A. Should we strive to make maps for people or people for maps? Why?
- B. Why is a one to one map not useful?