

DEMOGRAPHICS:

Please answer the following questions about your background.

Gender _____ **High School G.P.A.** _____

Birthdate: Day _____ Month _____ Year _____

Anticipated Major _____

Racial Background: ___ White ___ Hispanic ___ Asian
___ African-American ___ Pacific Islander
___ American Indian ___ Other _____

In which high school grade did you take:

Physics 8 9 10 11 12 Never
Chemistry 8 9 10 11 12 Never
Biology 8 9 10 11 12 Never
Earth Science 8 9 10 11 12 Never

Highest degree of:

Female Parent:

___ Elementary School
___ some High School
___ High School
___ some College
___ Bachelor's Degree
___ some Graduate School
___ Master's Degree
___ Doctoral Degree

Male Parent:

___ Elementary School
___ some High School
___ High School
___ some College
___ Bachelor's Degree
___ some Graduate School
___ Master's Degree
___ Doctoral Degree

GCI TEST QUESTIONS

Please answer the following questions to the best of your ability.

1. Some scientists claim that they can determine when the Earth first formed as a planet. Which technique(s) do scientists use today to determine when the Earth first formed? **Choose all that apply.**

- (A) Comparison of fossils found in rocks
- (B) Comparison of different layers of rock
- (C) Analysis of uranium and lead in rock
- (D) Analysis of carbon in rock
- (E) Scientists cannot calculate the age of the Earth

2. Which of the following can greatly affect erosion rates? **Choose all that apply.**

- (A) Rock type
- (B) Earthquakes
- (C) Time
- (D) Climate

3. (73) Some people believe there was once a single continent on Earth. Which of the following statements best describes what happened to this continent?

- (A) Meteors hit the Earth causing the continent to break into smaller pieces
- (B) The Earth lost heat over time and cracked, causing the continent to break into smaller pieces
- (C) Material beneath the continent moved, causing the continent to break into smaller pieces
- (D) The Earth gained heat over time and cracked, causing the continent to break into smaller pieces
- (E) Only a small number of people believe there was once a single continent, and it is more likely that the continents have always been in roughly the same place as they are today

4. (37) If the single continent in #73 did exist, how long did it take for the single continent to break apart and form the arrangement of continents we see today?

- (A) Hundreds of years
- (B) Thousands of years
- (C) Millions of years
- (D) Billions of years
- (E) It is impossible to tell how long the break up would have taken

5. (6) Which is the best definition of a tectonic plate?

- (A) All solid, rigid rock beneath the continents and above deeper, moving rock
- (B) All solid, rigid rock beneath the continents and oceans and above deeper, moving rock
- (C) All solid, rigid rock that lies beneath the layer of loose dirt at the Earth's surface and above deeper, moving rock
- (D) All solid, rigid rock and loose dirt beneath the Earth's surface and above deeper, moving rock
- (E) The rigid material of the outer core

6. (50) Since the initial formation of the Earth:

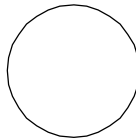
- (A) The rocks at the Earth's surface have generally cooled
- (B) The rocks at the Earth's surface have generally warmed
- (C) The rocks at the Earth's surface have stayed about the same temperature

7. (7) What did the Earth's surface look like when it first formed?



A

A. One large landmass surrounded by water



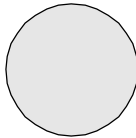
B

B. All water and no land



C

C. Similar to today



D

D. Mostly molten rock and no water



E

E. We have no way of knowing

If you could travel back in time to when the Earth first formed as a planet:

8. (26) What type(s) of life do you think you might encounter?

- (A) There would be no life on Earth
- (B) Simple, one-celled organisms
- (C) Animal and plant life in water, but none on land
- (D) All types of life in water and on land, except people
- (E) All types of life in water and on land, including people

9. (68) How many years back in time would you have to travel?

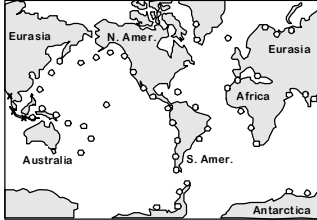
- (A) 4 hundred years
- (B) 4 hundred-thousand years
- (C) 4 million years
- (D) 4 billion years
- (E) 4 trillion years

10. (61) What does "density" refer to?

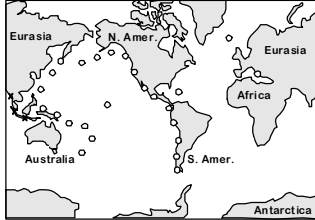
- (A) How thick something is
- (B) How quickly particles are moving inside something
- (C) How much material exists in a space
- (D) The amount of air contained within a material
- (E) How slowly liquids move

11. (13) The following maps show the position of the Earth's continents and oceans. The 's on each map mark the locations where volcanic eruptions occur on land. Which map do you think most closely represents the places where these volcanoes are typically observed?

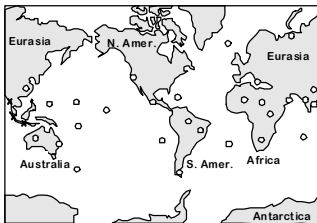
Circle one: **A** **B** **C** **D** **E**



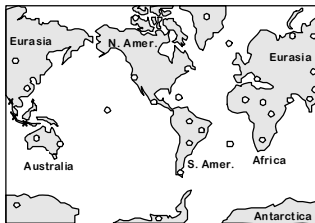
A. Mostly along the margins of the Pacific and Atlantic Oceans



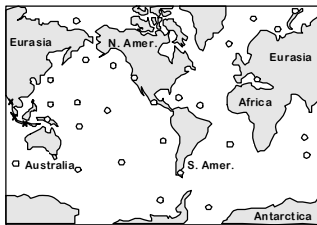
B. Mostly along the margins of the Pacific Ocean



C. Mostly in warm climates



D. Mostly on continents



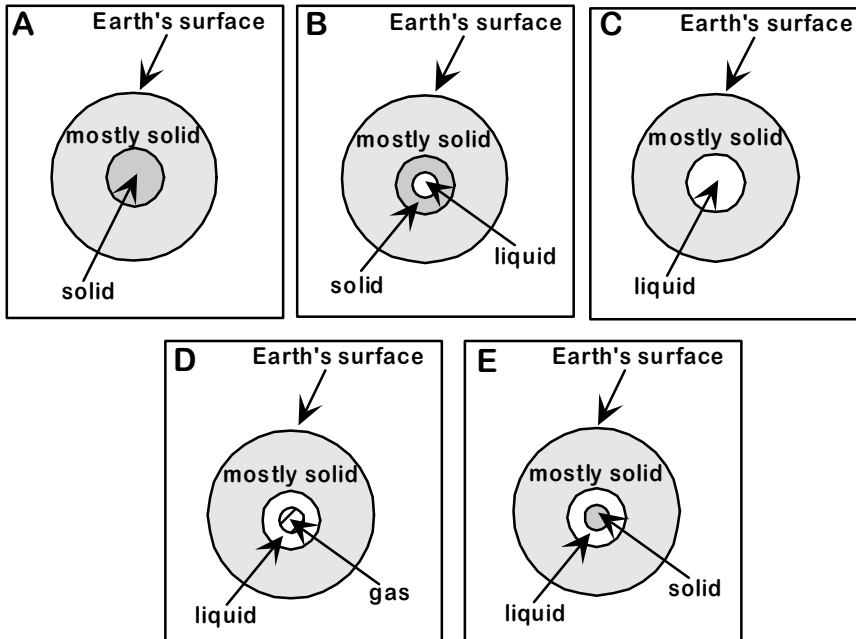
E. Mostly on islands

12. (32) What is the connection between clouds and rain?

- (A) Clouds are empty, and fill up with water. When the clouds are full, it rains
- (B) Clouds are empty, and fill up with water and other things, like pollution or minerals. When the clouds are full, it rains
- (C) Clouds are empty, and fill up with water. When the clouds get too heavy, it rains
- (D) Clouds are made up of water, and when the temperature gets high enough in the cloud, it rains
- (E) Clouds are made up of water, and when the temperature gets low enough in the cloud it rains

13. (20) Which of the following figures do you believe is most closely related to what you might see if you could cut the Earth in half?

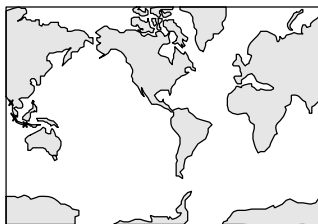
Circle one: **A** **B** **C** **D** **E**



14. (40) Fossils are studied by scientists interested in learning about the past. Which of the following can become fossils? **Circle all that apply.**

- (A) Bones
- (B) Plant material
- (C) Marks left by plants
- (D) Marks left by animals
- (E) Animal material

15. (65) The map below shows the position of the Earth's continents and oceans today. The gray areas represent land, and the white represents water. Which of the following best explains why the ocean basins look the way they do?



- (A) Meteor impacts caused the ocean basins to form this way
- (B) Ocean basins form as continents move
- (C) The ocean basins formed in cracks that were created as the whole Earth cooled after its formation
- (D) The ocean basins formed in cracks that were created as the whole Earth heated after its formation