

# Earth Science End of Unit Exam “Earth Cycles”

# Form “B”

- Before plants can take up nitrogen, it must be fixed. This means that
  - Bacteria in the soil excrete atmospheric nitrogen.
  - Nitrogen compounds change into carbon dioxide.
  - Bacteria decayed into nitrogen compounds.
  - Nitrogen is changed into nitrogen compounds.
- As part of the global carbon cycle, which to the following represents a possible sequence of reservoirs' and processes for an atom of carbon?
  - Desperation limestone erosion natural-gas
  - Coal photosynthesis atmosphere decomposition
  - Atmosphere photosynthesis plant remains combustion
  - Ocean water limestone respiration natural-gas
- Which of the following processes do both the water cycle and the carbon cycle have in common?
  - precipitation
  - Decomposition
  - combustion
  - Nitrogen fixation
- Global deforestation would most likely have its most significant affect on which of Earth's cycles?
  - Carbon cycle
  - nitrogen cycle
  - water cycle
  - phosphorus cycle
- Melting of the Polar icecaps would most likely have its most significant affect on which of Earth's cycles?
  - Carbon cycle
  - nitrogen cycle
  - water cycle
  - phosphorus cycle
- The primary process of by which carbon dioxide is returned to the atmosphere is called?
  - precipitation
  - Decomposition
  - combustion
  - Nitrogen fixation
- Transpiration, sublimation and infiltration are part of which Cycle?
  - Carbon cycle
  - nitrogen cycle
  - water cycle
  - phosphorus cycle
- The nitrogen cycle and the carbon cycle share a common process for returning them to the geosphere. It is?
  - precipitation
  - Decomposition
  - combustion
  - Nitrogen fixation
- Limestone, fertilizer and decomposition are terms that belong to which Cycle?
  - Carbon cycle
  - nitrogen cycle
  - water cycle
  - phosphorus cycle

10. Water is important to many different types of industry. Which industry's water requirement is the greatest burden on California's fresh water supply?
- A aerospace
  - B manufacturing**
  - C tourism
  - D agriculture
11. Only about 50% of the solar energy directed toward Earth penetrates directly to the surface. What happens to the rest of the radiation?
- A It is absorbed or reflected by the atmosphere.
  - B It loses energy traveling through space.**
  - C It is reflected off the Moon and back into space.
  - D It loses energy overcoming the Sun's gravity.
12. Which of these could increase average global temperatures?
- A increased use of fossil fuels
  - B increased ocean algal blooms**
  - C decreased carbon dioxide emissions
  - D increased numbers of animal species
13. The main purpose of the California aqueduct is to
- A allow inexpensive water routes for transporting commercial products.
  - B transport fresh water to areas with dense populations.**
  - C divert floodwater from populated regions to sparsely populated areas.
  - D provide abundant ocean water to drier regions of California.
14. From Earth's atmosphere, carbon dioxide is used by plants, algae, and cyanobacteria during the process of
- A photosynthesis.
  - B respiration.**
  - C decomposition.
  - D nitrogen fixation.
15. Carbon in the atmosphere is *most* often found as which of the following compounds?
- A stratospheric ozone
  - B fossil fuel**
  - C carbon monoxide
  - D carbon dioxide
16. Which of the following human activities reduces the level of ozone in the atmosphere?
- A using artificial lighting in scientific polar stations
  - B using large banks of solar cells for energy production**
  - C releasing chlorofluorocarbons from aerosol cans
  - D destroying large areas of the equatorial rain forests
17. During periods of increased global temperatures, which of the following is *most* likely to occur?
- A a decrease in atmospheric CO<sub>2</sub>
  - B an increase in atmospheric CO<sub>2</sub>**
  - C a decrease in earthquakes
  - D an increase in earthquakes

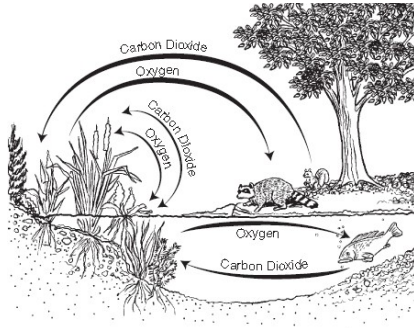
18. Which of the following was made possible by the presence of photosynthetic bacteria on Earth?

- A a water cycle
- B an oxygen cycle
- C carbon fixation
- D anaerobic respiration

19. Which of the following is common to all of the Earth cycles?

- a. precipitation
- b. Decomposition
- c. combustion
- d. Nitrogen fixation

20.



Which of these statements is *best* illustrated by this diagram?

- A Animals under water eat plants.
- B Land animals exhale oxygen into water.
- C Water-dwelling animals breathe carbon dioxide.
- D Plants can take in carbon dioxide from air or water.