## Name: \_\_\_\_

## Date: \_\_\_\_

1. Urban City X has been referred to as an urban heat island because it tends to be warmer than the surrounding rural areas. The report below lists changes that have occurred in one year in Urban City X.

## **Report for Urban City X:**

- Eight roads were repaved.
- The population increased by 20%.
- Public transportation increased by 5%.
- Four new apartment complexes were built.
- Plans were drafted to build a local park.
- A meeting was held about alternative energy sources.

What is the *main* cause of Urban City X being an urban heat island?

- A. the planting of trees and other vegetation
- B. the building of rooftop gardens
- C. the installation of solar panels
- D. the construction of parking areas and road systems
- 2. How is climate different from weather?
  - A. Climate is constantly changing, whereas weather changes slowly over time.
  - B. Climate influences people's daily activities, whereas weather influences people's seasonal activities.
  - C. Climate refers to the atmospheric conditions on a given date, whereas weather refers to the atmospheric conditions during a given season.
  - D. Climate is based on observations made for a region over several years, whereas weather is based on day-to-day observations made for a region.

- 3. A local government voted against the large-scale development of buildings and roads in the area. What could have been the motive behind their decision?
  - A. It could lead to a decrease in the average annual temperature in the area.
  - B. It could lead to the formation of heat islands, which may impact the microclimate in the area.
  - C. It could lead to the introduction of invasive species, which may impact the area.
  - D. It could lead to a decrease in acid rain production in the area.
- 4. The map of the United States below shows the locations of Missoula, MT, and Cape Elizabeth, ME.



What factors make the climates different at these two locations?

- A. latitude and longitude
- B. altitude and longitude
- C. latitude and proximity to large bodies of water
- D. altitude and proximity to large bodies of water

- 5. A meteorologist records the amount of sunshine, rain, snow, and other meteorological events of a region over a long period of time. Which of the following is he *most likely* observing?
  - A. atmospheric pressure
  - B. climate
  - C. precipitation
  - D. weather
- 6. In which of the following climates is it always cold with very little precipitation?
  - A. Desert climates B. Cold Climates
  - C. Polar Climates D. Temperate Climates
- 7. In which of the following climate systems is North Carolina found?
  - A. Tropical climate B. Temperate climate
  - C. Cold climate D. Dry Climate

- 8. Which of the following is NOT an example of a microclimate?
  - A. Urban heat islands
  - B. Lake effect snow
  - C. Sunny side of mountains
  - D. Tropical rain forests
- 9. What causes lake effect snow?
  - A. Moist air moving over cold land
  - B. Cold air moving over warm water
  - C. Dry air moving over cold land
  - D. All of the above
- 10. What type of climate would you expect to find in the evergreen forests up upper Canada?
  - A. Tropical climate B. Desert climate
  - C. Polar climate D. Cold climate