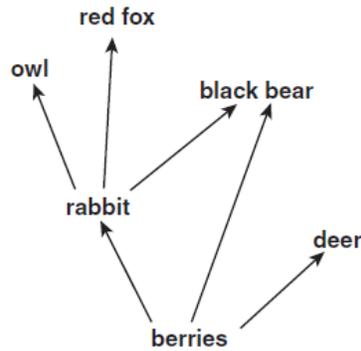


11/19/2016 Houston ISD Science Exam I

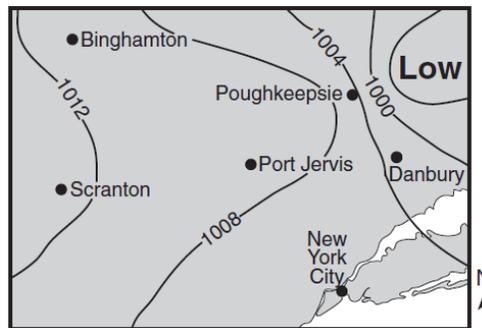
- (1) If you were asked to determine the speed of a hamster, which of the following instruments would you use?
- 1) balance to measure mass
 - 2) thermometer
 - 3) stop watch
 - 4) meter stick
 - 5) graduated cylinder
- A) 3
B) 3, 4
C) 2, 3
D) 1, 2, 5
- (2) Parts of a cell do NOT include
- A) ribosomes .
B) lysosome.
C) cytoplasm.
D) golgotha.
- (3) Almost 80% of a cell is
- A) water.
B) oxygen.
C) hydrogen.
D) DNA.
- (4) The study of the interactions among organisms and their environment is
- A) biology.
B) ecology.
C) paleontology.
D) histology.
- (5) Which level of the food chain has the most energy?
- A) producers
B) decomposers
C) herbivores
D) consumers
- (6) A large tropical storm that forms over warm oceans is called a
- A) tsunami.
B) tornado.
C) thunderstorm.
D) hurricane.
- (7) What is the largest organ in the human body?
- A) The skin
B) The lungs
C) The heart
D) The brain
- (8) Above a continent, a warm air mass slowly passes over a cold air mass. As the warm air begins to cool, clouds form. What will most likely happen next?
- A) Hurricanes will form.
B) Rain will fall.
C) Hail will form.
D) Snow will fall.
- (9) Which is found furthest from the center of an atom?
- A) quark
B) neutron
C) electron
D) proton
- (10) Which of the following is a product of photosynthesis?
- A) salt
B) nitrogen
C) carbon dioxide
D) sugar

(11) The diagram below shows a simple food web. Which animal is classified as an omnivore?



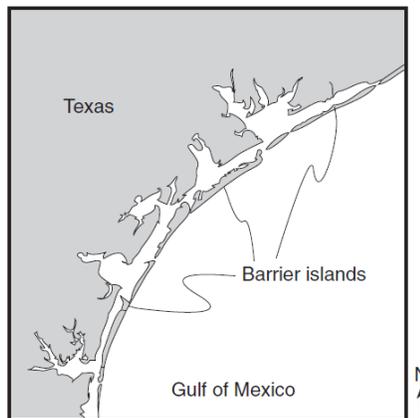
- A) red fox
- B) deer
- C) rabbit
- D) black bear

(12) The weather map below shows a low-pressure system centered near Poughkeepsie, New York. Isobars shown are measured in millibars. Which city is most likely experiencing winds of the greatest velocity?



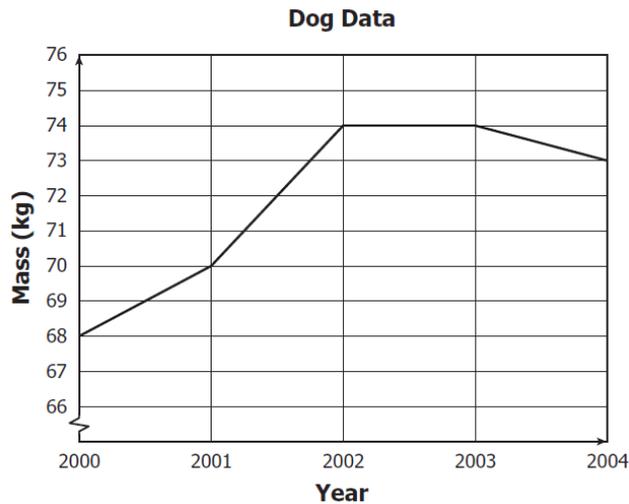
- A) Scranton
- B) New York City
- C) Poughkeepsie
- D) Binghamton

(13) The map below shows barrier islands in the ocean along the coast of Texas. Which agent of erosion most likely formed these barrier islands?



- A) mass movement
- B) wave action
- C) glaciers
- D) oil spills

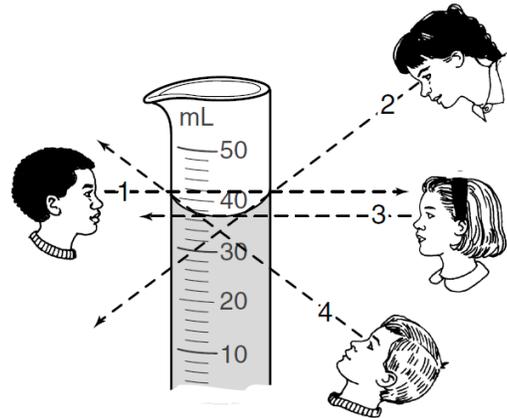
- (14) Where is hydrochloric acid added to the food mass in the human body?
 A) stomach
 B) large intestine
 C) mouth
 D) small intestine
- (15) Which of the following groups of animals molt?
 A) sea stars
 B) flatworms
 C) crustaceans
 D) cats
- (16) Where is most of a plant's new xylem and phloem produced?
 A) guard cell
 B) cambium
 C) cuticle
 D) stomata
- (17) What part of the eye is light finally focused on?
 A) retina
 B) pupil
 C) cornea
 D) lens
- (18) The line graph shows five years of data about a dog. What information does the graph show?



- A) How the mass of the dog changed.
 B) What kinds of food the dog consumed.
 C) How much food the dog consumed.
 D) When the dog was measured each month.
- (19) The average distance from Earth to the Moon is 384,401 km. How is the distance from Earth to the Moon expressed in scientific notation?
 A) 3.84×10^3 km
 B) 3.84×10^5 km
 C) 3.84×10^4 km
 D) 3.84×10^6 km
- (20) A student predicts that similar ice cubes will melt faster in a microwave than in a pot on the stove. How should this hypothesis be tested?
 A) Measure and compare the volume of the pot and the microwave.
 B) Determine the volume of liquid water made by each ice cube.
 C) Observe and record the time for each ice cube to completely change to a liquid.
 D) Identify and record the temperature of each ice cube before each trial

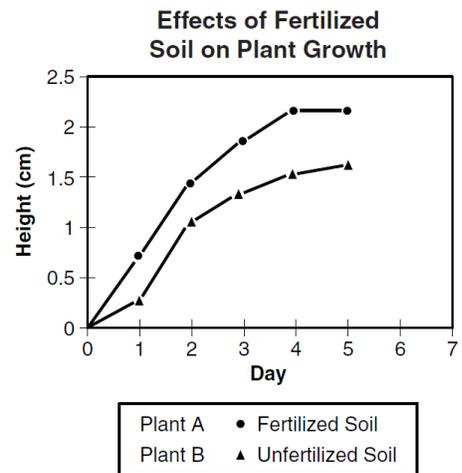
- (21) As the energy needs for Texas increase, new sources of energy are required to replace or supplement the nonrenewable sources of energy now in use. Two sources of energy that are renewable and available in Texas are —
- A) natural gas and wind power
 B) petroleum and solar power
 C) coal and hydropower
 D) wind power and solar power
- (22) Human sweat is the direct result of which life functions?
- A) Respiration and cellular growth
 B) Reproduction and cellular transport
 C) Digestion and disease prevention
 D) Waste removal and temperature control
- (23) The diagram below and to the right shows a graduated cylinder containing water. From which position will the most accurate measure of the volume of the water be made?

- A) Position 1
 B) Position 2
 C) Position 3
 D) Position 4



- (24) The line graph down and to the right shows the heights of plants grown in fertilized and unfertilized soil. Based on this information, what will *most* likely occur on day six?

- A) Neither plant should increase by 1 cm in height.
 B) Plant A should increase about 1 cm in height.
 C) Plant B should increase about 1 cm in height.
 D) Plant A should increase about 2 cm in height.



- (25) If you break a piece of glass, the shape of the glass changes, but the properties in the fragments remain the same. Which of the following has occurred?
- A) A chemical change
 B) A phase change
 C) A temperature change
 D) A physical change

- (26) A rock weathers into soil particles over a very long period of time. Which yearly measurement would best be used to record the rock's rate of weathering?
- A) temperature change
B) mass change
C) height change
D) density change
- (27) Which would most likely be measured in milliliters?
- A) amount of rainfall in a month
B) temperature of rain
C) length of time of a rainstorm
D) mass of a raindrop
- (28) Which group of plants has the most species?
- A) seedless vascular plants
B) angiosperms
C) nonvascular plants
D) gymnosperms
- (29) If sunlight warms only the top 100 m of ocean water, why does the surface zone extend to about 300 m below the surface?
- A) Warm water sinks.
B) Volcanoes heat the water.
C) Plankton carries the heat down.
D) Surface currents mix the heated water with cooler water below.
- (30) Which areas of the ocean would have the greatest salinity?
- A) coastal water in a hot, dry area
B) coastal areas that have a lot of rain
C) coastal areas where a major river runs in
D) coastal water in a cool, humid area
- (31) Strong, deep earthquakes are produced along what type of faults?
- A) reverse
B) strike-slip
C) converse
D) normal
- (32) When they were alive, the organisms that formed fossil fuels received and stored their energy from the
- A) water.
B) wind.
C) Earth's heat.
D) sun.
- (33) The fact that a puppy can be trained to not chew on things other than food shows that
- A) an innate behavior can be modified.
B) a puppy's tendency to chew is learned.
C) a puppy's tendency to chew is inherited.
D) a learned behavior can be modified.
- (34) Mitochondria make ATP by
- A) using the power of sunlight.
B) photosynthesis.
C) breaking down sugars.
D) binary fusion.
- (35) Which of the following statements is NOT part of the cell theory?
- A) All organisms are made of one or more cells.
B) All cells have a nucleus and a cell membrane.
C) The cell is the basic unit of all living things.
D) All cells come from existing cells.

**11/19/2016 Houston ISD Science I Test
Answer Key**

- (1) ___ B ___
- (2) ___ D ___
- (3) ___ A ___
- (4) ___ B ___
- (5) ___ A ___
- (6) ___ D ___
- (7) ___ A ___
- (8) ___ B ___
- (9) ___ C ___
- (10) ___ D ___
- (11) ___ D ___
- (12) ___ C ___
- (13) ___ B ___
- (14) ___ A ___
- (15) ___ C ___
- (16) ___ B ___
- (17) ___ A ___
- (18) ___ A ___
- (19) ___ B ___
- (20) ___ C ___

- (21) ___ D ___
- (22) ___ D ___
- (23) ___ C ___
- (24) ___ A ___
- (25) ___ D ___
- (26) ___ B ___
- (27) ___ A ___
- (28) ___ B ___
- (29) ___ D ___
- (30) ___ A ___
- (31) ___ A ___
- (32) ___ D ___
- (33) ___ A ___
- (34) ___ C ___
- (35) ___ B ___

For Graders Use Only

Initials ___ ___ ___

_____ Correct $\times (+5) =$ _____

_____ Wrong $\times (-2) =$ _____

Total Score = _____

Rank _____