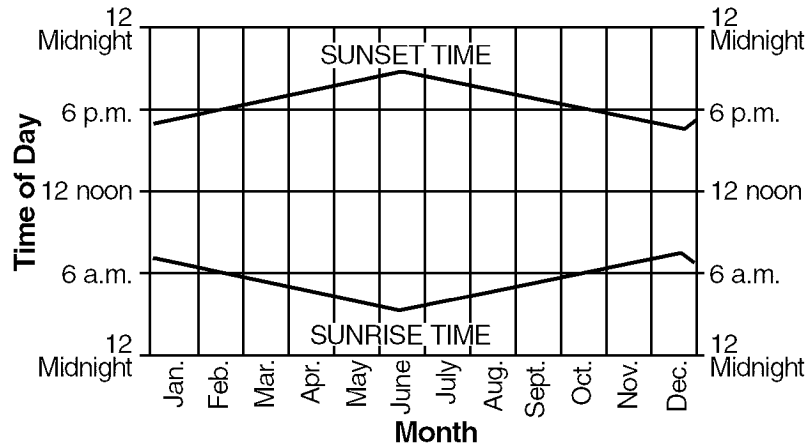


Earth Science Sample Questions

Name: _____

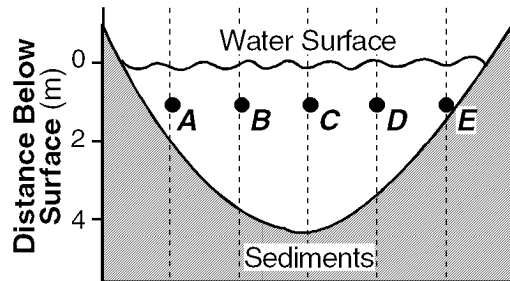
- 1) The graph below shows times of sunrise and sunset observed at an Earth location for 1 year.



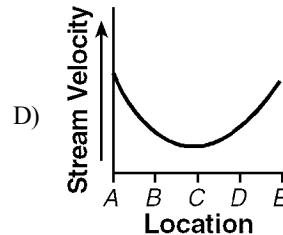
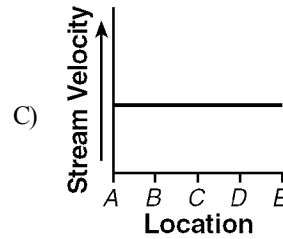
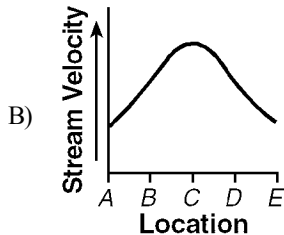
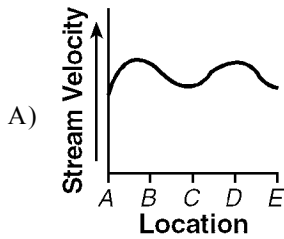
At which Earth location could these observations have been made?

- | | |
|---|--|
| <p>A) mid-latitude in the Southern Hemisphere</p> <p>B) the Equator</p> | <p>C) mid-latitude in the Northern Hemisphere</p> <p>D) the North Pole</p> |
|---|--|
-
- 2) Which weather station model indicates the *highest* relative humidity?
- | | |
|-----------------------|-----------------------|
| <p>A) </p> <p>B) </p> | <p>C) </p> <p>D) </p> |
|-----------------------|-----------------------|
-
- 3) The time that an earthquake occurs can be inferred by knowing the
- A) distances between seismograph stations
- B) epicenter distance and arrival time of the *P*-waves
- C) arrival time of *P*-waves
- D) travel time of the *S*-waves
-
- 4) What is the approximate minimum water velocity needed to maintain movement of a sediment particle with a diameter of 5.0 centimeters?
- A) 200 cm/sec
- B) 75 cm/sec
- C) 150 cm/sec
- D) 100 cm/sec
-
- 5) Rapidly falling barometric pressure readings most likely indicate
- A) decreasing temperatures
- B) approaching storm conditions
- C) clearing conditions
- D) decreasing humidity
-
- 6) All of the containers shown below contain the same volume of water and are at room temperature. In a two-day period, from which container will the *least* amount of water evaporate?
- | | |
|---|---|
| <p>A) </p> <p>B) </p> <p>C) </p> <p>D) </p> | <p>7) Radioactive carbon-14 would be most useful in determining the age of</p> <p>A) the Palisade Sill intrusion</p> <p>B) intensely metamorphosed rocks</p> <p>C) trilobite fossils</p> <p>D) buried tree stumps</p> |
|---|---|

8) The diagram below represents a cross section of a stream. Points *A, B, C, D,* and *E* are locations within the stream channel.



Which graph *best* represents stream velocity at locations *A* through *E*?



9) What most likely will happen to soil moisture when precipitation is greater than potential evapotranspiration?

- A) Soil-moisture may be used.
- B) Soil-moisture storage may decrease.
- C) Soil-moisture may be recharged.
- D) Soil-moisture deficit may increase.

10) Which location on the Earth would the Sun's vertical rays strike on December 21?

- A) Tropic of Capricorn ($23\frac{1}{2}^{\circ}$ S)
- B) South Pole (90° S)
- C) Equator (0°)
- D) Tropic of Cancer ($23\frac{1}{2}^{\circ}$ N)

IGNEOUS ROCKS

Rock	Description	Minerals in Rock	Method of Formation	Use
Granite	Light colored, gray to pink	A	Intrusive	Building stone, monuments
Pumice	Light to gray	Feldspar and quartz	Extrusive	Scouring powders and soaps
B	Dark colored, gray to black, coarse grained	Feldspar and pyroxene	Intrusive	Building stone
Basalt Scoria	Dark colored, fine grained	Feldspar and pyroxene	Extrusive	Building stone, railway ballast
Obsidian (volcanic glass)	Dark colored	Feldspar and quartz	Extrusive	Ornaments, arrowheads

11)

Which group of minerals is represented by letter *A* in the "Igneous Rocks" table?

- A) hornblende, olivine, and pyroxene
- B) olivine, biotite, and hornblende
- C) plagioclase feldspar, pyroxene, and biotite
- D) potassium feldspar, quartz, and biotite

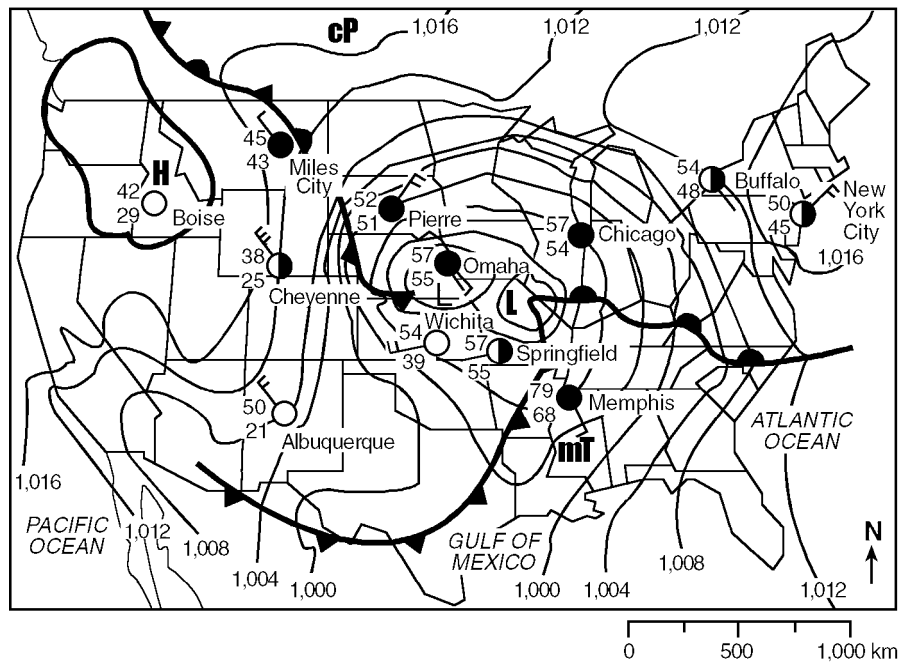
- 12) The Bay of Fundy, located on the east coast of Canada, has the highest ocean tides in the world. The St. John River enters the Bay of Fundy at the city of St. John, where the river actually reverses direction twice a day at high tides. Data for the famous Reversing Falls of the St. John River are given below for high and low tides on June 26 through 28, 1994.

Tidal Record for Reversing Falls, St. John River

Date	Time of First High Tide	Time of First Low Tide	Time of Second High Tide	Time of Second Low Tide
June 26	2:25 a.m.	8:45 a.m.	2:55 p.m.	9:05 p.m.
June 27	3:15 a.m.	9:35 a.m.	3:45 p.m.	9:55 p.m.
June 28	4:05 a.m.	10:25 a.m.	4:35 p.m.	10:45 p.m.

Tides in the Bay of Fundy are *best* described as

- A) predictable and noncyclic
 B) predictable and cyclic
 C) unpredictable and noncyclic
 D) unpredictable and cyclic
- 13) The diagram below represents a weather map.



The air mass over Memphis, Tennessee, most likely originated in

- A) central Canada
 B) the North Pacific
 C) the central United States
 D) the Gulf of Mexico