

GED

Exam GED-Science

GED Science Exam

Version: 6.0

[Total Questions: 300]

Question No : 1

Many scientists believe that early in Earth's history, life began in water, aided by the energy from sunlight. Dissolved molecules probably bonded chemically with each other to produce increasingly complex organic molecules called "heterotroph aggregates." These molecules eventually developed the ability to reproduce.

Why are heterotroph aggregates not found on Earth's Moon?

- A. The effect of Earth's gravity on the Moon is too weak.
- B. The Moon is composed of elements not found on Earth.
- C. There is no energy from sunlight on the Moon.
- D. There is no liquid water on the Moon.
- E. The Moon is composed of inorganic molecules.

Answer: D

Question No : 2

A steel ball fits exactly into a hole in a wooden block. If the steel ball is heated, which of the following will occur?

- A. The ball will be too large to fit in the hole.
- B. The ball will become oval shaped.
- C. The ball will shrink and be loose in the hole.
- D. The ball will crack into two equal parts.
- E. The ball will still fit exactly into the hole.

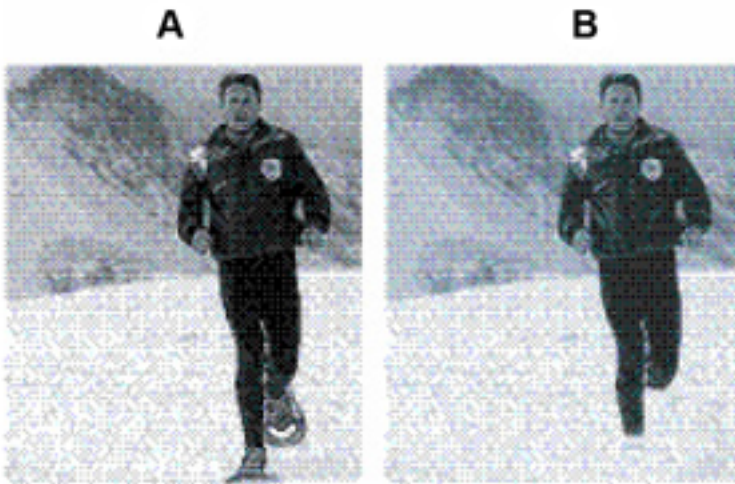
Answer: A

Question No : 3

Pressure is explained as the force (a push or a pull) applied on a surface, divided by the total area over which the force is applied. For example, more pressure is exerted under Abby's heel wearing spiked heel shoes than under Abby's heel wearing flat heeled shoes.

In figure A, the man is walking in snow with snowshoes and does not sink into the deep snow. In figure B, the man has no snowshoes on and immediately sinks into the deep snow.

Walking on Snow



What would cause the man in figure A to sink less deeply into the snow than the man in figure B?

- A. The man in figure B is much heavier than the man in figure A.
- B. The man in figure A is much heavier than the man in figure B.
- C. The man in figure A has his weight spread out over the area covered by the snowshoe, which lessens the pressure.
- D. The man in figure B has his weight spread out over the small area covered by his running shoes, which lessens the pressure.
- E. The man in figure A has his weight spread out over the area covered by the snowshoe, which increases the pressure.

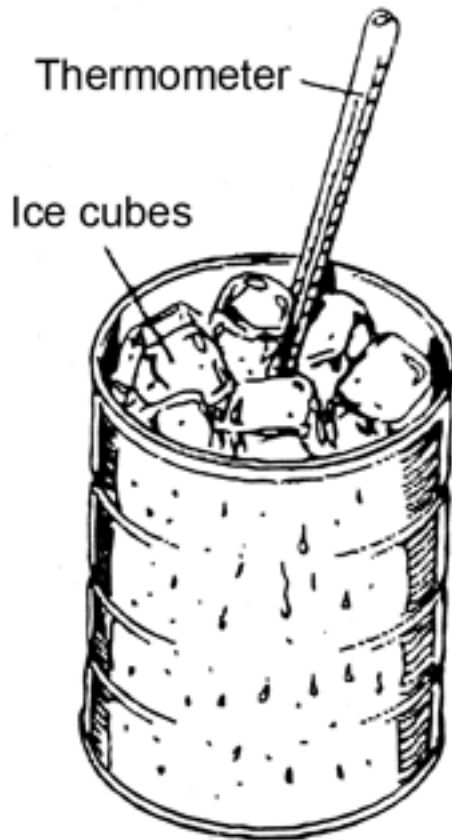
Answer: C

Question No : 4

Air is a mixture of gases, mostly nitrogen and oxygen, but it also contains a small amount of water vapor. Depending on its temperature, water can exist in any of the three states of matter.

In the diagram at the left, water droplets have formed on the outside of the can, and the can contains pieces of ice.

Dew Point



Based on the information and diagram, which statement regarding the droplets on the outside of the can is the most accurate?

- A. The can leaked water from the ice cubes as they melted.
- B. The ice in the can cooled the air around the can, causing the water droplet formation.
- C. Liquid on the can is CO₂ from the exhaled air of the observers of the demonstration.
- D. Many more droplets would have appeared if a styrofoam cup had been substituted for the tin can.
- E. Many more droplets will form on the outside of the can on a windy day, when the air is less humid.

Answer: B

Question No : 5

Sugar is produced in the sugar beet's leaves through photosynthesis and then is transported to the root. The root of a sugar beet weighs from 1.5 to 3 pounds.

For what purpose is the root of the sugar beet adapted?

- A. storage of water
- B. storage of sugar
- C. photosynthesis
- D. transport of sugar
- E. production of sugar

Answer: B

Question No : 6

Scientific information is always tentative and subject to further checking for accuracy.

Which choice is the best way to check data obtained from a specific experiment?

- A. Do research on the Internet.
- B. Contact government agencies.
- C. Consult with experts.
- D. Repeat the experiment.
- E. Do another related study.

Answer: D

Question No : 7

A cell, the basic unit of living things, contains microscopic structures called organelles. A group of specialized cells of the same type forms a tissue, such as muscle or nerve tissue. An organ such as the liver is composed of different kinds of tissues that contribute to its overall function. A group of related organs form an organ system, such as the digestive system. A living organism may contain a number of organ systems working together to carry on the life functions.

Based on the information, in which category does the human heart belong?

- A. cell
- B. tissue
- C. organ
- D. organ system
- E. organelle

Answer: C

Question No : 8

Vertebrates, animals with backbones, are divided into the following five major groups: fish, reptiles, amphibians, birds, and mammals. Some characteristics of these groups are given in the table below.

Which statement is true if an animal lives in water, does not lay eggs, and is warm-blooded?

Exhibit:

Classification of Vertebrates

Classification	Characteristics
Fish	<ul style="list-style-type: none">- Have fins- Breathe with gills- Are cold-blooded- Lay eggs
Amphibians	<ul style="list-style-type: none">- Begin life with gills- Develop lungs as they mature- Are cold-blooded- Lay eggs without shells
Reptiles	<ul style="list-style-type: none">- Have lungs- Are cold-blooded- Lay eggs with shells
Birds	<ul style="list-style-type: none">- Have lungs- Are warm-blooded- Have feathers- Lay eggs with shells
Mammals	<ul style="list-style-type: none">- Have lungs- Are warm-blooded- Make milk to feed their young- Give birth to live young

Source: Cleveland Museum of Natural History teacher resource files

- A. a fish
- B. a reptile
- C. a mammal

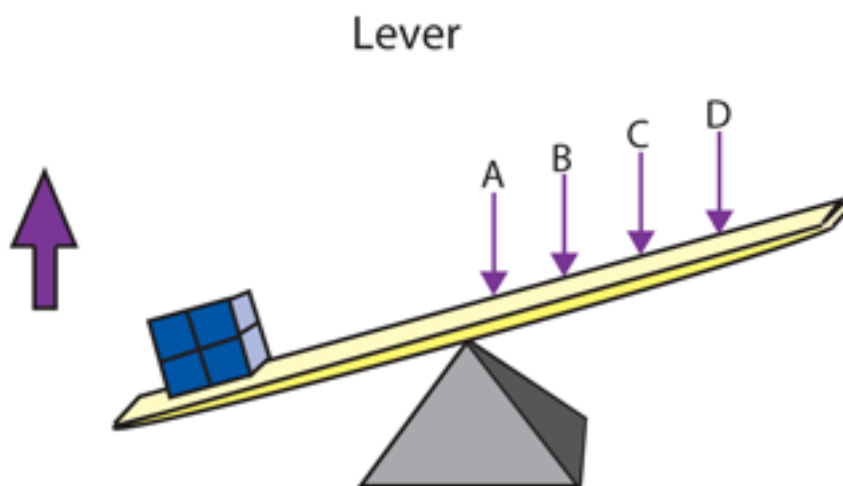
- D. an amphibian
- E. a bird

Answer: C

Question No : 9

Simple machines reduce the amount of force needed to do work such as lifting an object. The simple machine shown below is a lever. A downward force on one end of a lever moves the other end up. A playground seesaw or a crowbar are common examples of levers.

The amount of force needed to raise the box sitting on the lever depends on where the force is applied. The more distance between the weight and the force, the smaller the force that is needed.



Source: A. Zeman and K.Kelly, *Everything You Need to Know about Science Homework* (New York: An Erving Place Press Book, 1994), 106.

In the diagram on the left, where would the LEAST amount of force be needed to move the weighted box?

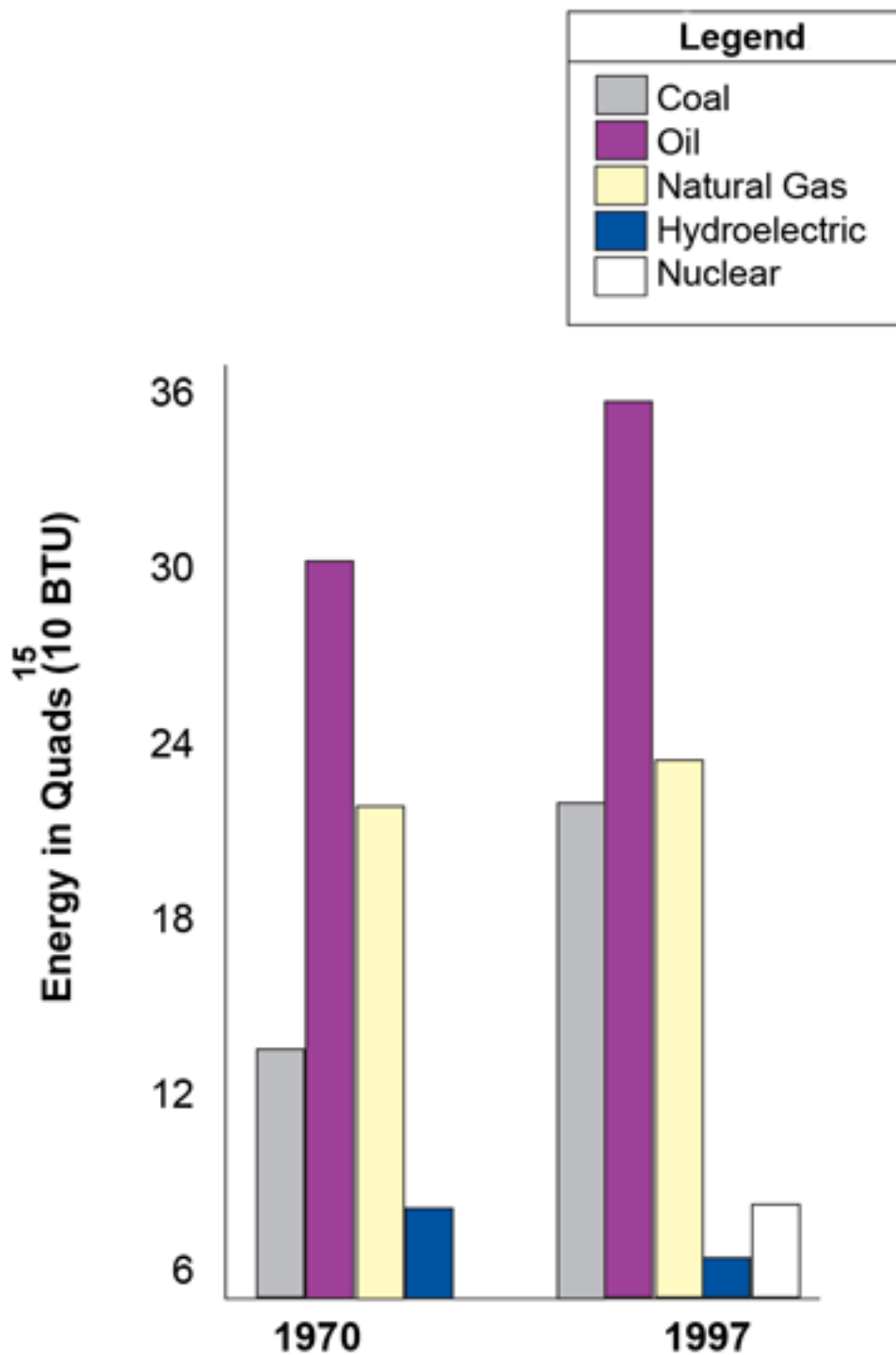
- A. at point A
- B. at point B
- C. at point C
- D. at point D

E. next to the box

Answer: D

Question No : 10

If 1970—1997 trends continue, which statement could be predicted from the bar graph?



- A. Use of oil for energy production will decrease.
- B. Use of hydroelectric energy will increase.
- C. Use of coal for energy production will increase.
- D. Use of nuclear power will remain the same.
- E. Total energy use will decrease in the future.

Answer: C

Question No : 11

Uma wanted to test her hypothesis that fescue grass grows best under red light. Independent variables, such as size of fescue grass plants, soil type, number of plants, and length of exposure to light were kept identical for both the experimental and control groups. Uma exposed the experimental group to red, green, and blue light and the control group only to sunlight. She took daily measurements of plant height for the next three weeks.

During the second week, Uma noticed that 8 of the 10 plants that she had exposed to red light looked a little wilted. She increased the daily water amount for these 8 plants. At the end of the experiment, she concluded that fescue grass grows best under red light.

What is a possible flaw in Uma's experiment?

- A. keep track of plant growth under each treatment
- B. plant all samples in the same type of soil
- C. plant an equal number of plants under each treatment
- D. monitor the plants in the control group
- E. give equal amounts of water to all plants

Answer: E

Question No : 12

A study in Florida has revealed that the sex characteristic of an alligator is determined by temperature. Alligator eggs incubated at 30° C (86° F) hatched into female offspring. Eggs incubated at 34° C (93° F) resulted in male offspring. At the latter temperature, androgenic hormones are produced inside the eggs, resulting in the formation of male sex organs. At a temperature of 30° C, estrogenic hormones are produced, leading to the formation of female sex organs.