FSSA Practice Test–Form A

Instructions–Form A

The following pages contain a practice test. Do not look at the test until your teacher tells you to begin.

Use the answer sheet on page 137 to mark your answers.

Read each question carefully. Restate the question in your own words.

Watch for key words such as *not*, *most*, and *least*.

A question might include one or more tables, graphs, diagrams, or pictures. Study these carefully before choosing an answer.

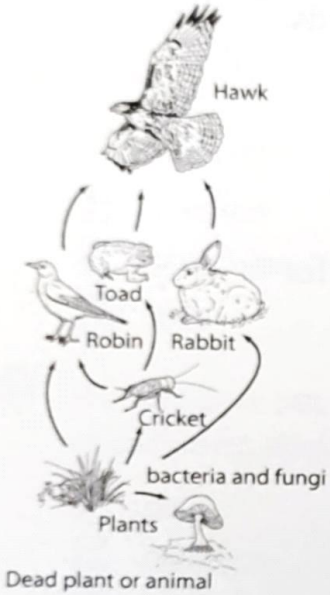
For questions 1–60, find the best answer. Fill in the answer bubble for that answer. Do not make any stray marks around answer spaces.

FSSA Practice Test–Form A

DIRECTIONS

Read each question carefully. Determine the best answer to the question from the answer choices provided. Then fill in the answer on your answer sheet.

1 Which part of this food chain uses light energy from the sun?



A the hawk, because it has plenty of prey

B the dead leaves, because decomposers eat them

C the green plants, because they produce food for crickets

D the birds, because sunlight helps them find insects and seeds

2 In which galaxy is Earth found?

F Andromeda

G Crab Nebula

H Orion

I The Milky Way

3 Which is an adaptation of behavior that helps an animal survive?

A A barn owl hears mice moving through grass at night.

B A chimpanzee fishes for termites with a stick.

C A polar bear's thick fur keeps it warm in Arctic winters.

D A duck's webbed feet paddle on a freshwater pond.

4 Which organ of a species works **most like** a human skeleton?

F a polar bear's fur

G a giraffe's neck

H a lobster's shell

I a fish's scales

5 Luisa wants to make plastic from banana peels. She mixes more than a dozen compounds to make her plastic. On her fourth try, she successfully produces a thin, waterproof coating. Kevin and Jun follow her science notes and use the same quantities of each material. Neither student is able to reproduce the plastic that Luisa made. Which is a fair evaluation of Luisa's experiment?

A The experiment is a success because Luisa produced a thin, waterproof plastic.

B The experiment is not a success because the plastic cannot be reproduced by others.

C The experiment is a success because Kevin and Jun probably did not follow Luisa's directions.

D The experiment is not a success because Luisa wrote poor notes.

6 Which animal species has a life cycle that compares **most closely** to that of Florida Key deer?

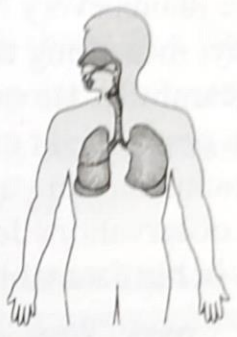
F a crocodile

G a loggerhead turtle

H a manatee

I a wood stork

7 What function do these organs have in the human body?



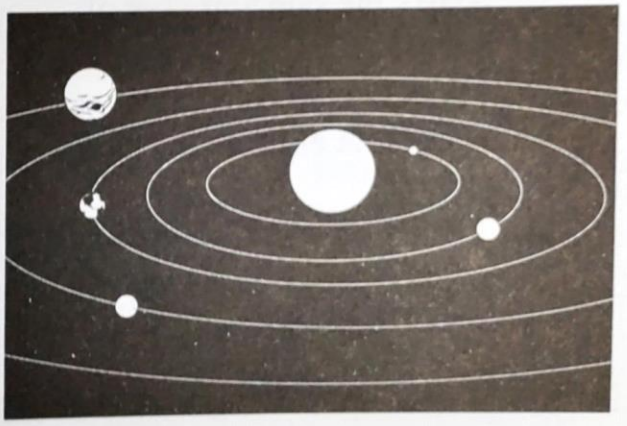
A intake of oxygen and removal of waste gas from the body

B processing and use of nutrients from food

C allowing motion of arms and legs

D experience of the five senses

8 What does this illustration represent?



F asteroid belt

G galaxy

H solar system

I star

9 Josh is doing an experiment to find out how different amounts of water affect the growth of bean plants. He waters the plants every Monday and Friday, measuring the amount of water carefully. He measures the change in plant height every Friday. What conclusion can you draw from the observations Josh recorded in his data table?

Plant	Water provided	Week 1	Week 2	Week 3	Week 4
Plant 1	2 mL	No growth	1 cm	2 cm	3 cm
Plant 2	6 mL	No growth	2 cm	4 cm	8 cm
Plant 3	12 mL	1 cm	5 cm	9 cm	16 cm
Plant 4	24 mL	No growth	No growth	No growth	No growth

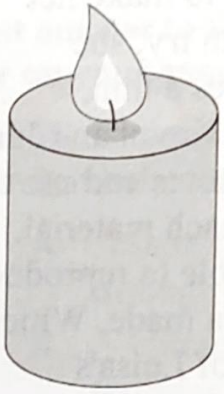
A Plants 1, 2, and 3 showed successful growth.

B Plant 2 and 3 will produce nearly the same number of beans.

C Plant 3 received an amount of water that encouraged rapid growth.

D Plant 4 should have grown the most. There was a problem with the seed.

10 In this illustration, which types of energy are produced?



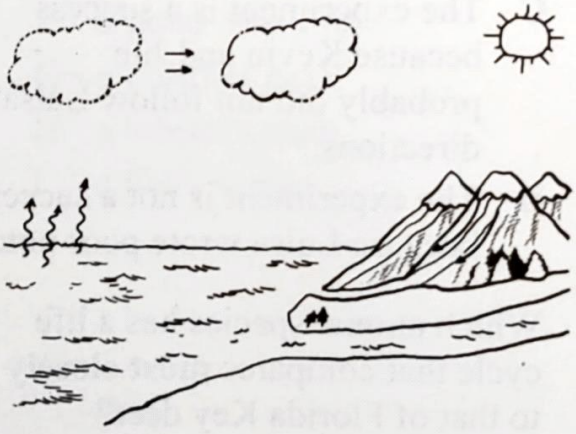
F heat and light

G light and mechanical

H mechanical and heat

I sound and light

11 Look at the diagram. Which step in the water cycle is missing?



A condensation into clouds

B evaporation into water vapor

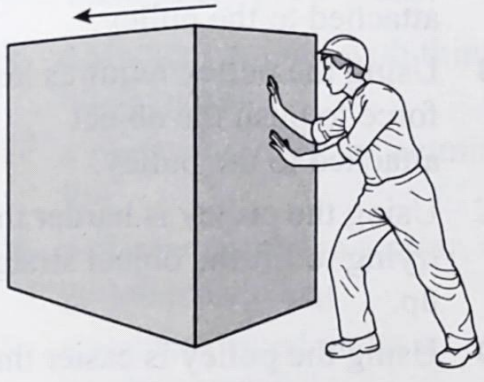
C precipitation in the form of rain

D runoff of rain into a lake

12 Which answer is an example of a pull changing motion?

F picking up a bucket of apples
G rolling a bowling ball down an alley
H squashing a footprint into sand
I using a finger to ring a doorbell

13 The crate is too large and heavy for the man to move it. How can he get it to move?



A He can pull from the other side.
B He can reduce the amount of force applied to the crate.
C He turn the crate on its side and push.
D He can get help to increase the force to move the crate.

14 A 10-meter high sand dune forms in a desert. What **most likely** caused this?

F changing tides
G chemical weathering
H erosion by wind
I intense flooding

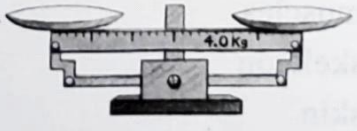
15 Which structure functions to protect an organism within its environment?

A beak shape on a flamingo
B eye color of a panther
C quills on a porcupine
D tail on a cat

16 Which is **most like** the movement of blood in a human being?

F Heat from the sun warms an alligator, and that warmth spreads throughout the body.
G Water enters gills of a fish, and oxygen is taken out of the water.
H Food is eaten by a bear, and the nutrients are used in all muscle structures.
I Water enters plant roots and travels through the stem and leaves.

17 Students are studying minerals in class. Which property of a mineral can be determined using this equipment?



A density
B magnetism
C mass
D volume

18 Which object in a solar system orbits a planet?

F asteroid
G comet
H meteor
I moon

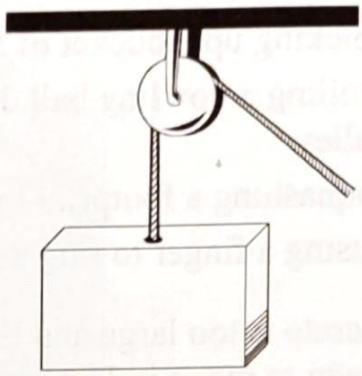
19 The map shows air temperatures and a warm front. How is this information used?

A to record precipitation
B to track a hurricane
C to change the weather
D to predict the weather in a city

20 Rachelle falls in a muddy puddle. Which body organ protects her from the organisms living in the puddle?

F lungs
G muscles
H skeleton
I skin

21 How does this simple machine work?



A Using the pulley requires more force to push the object attached to the pulley.
B Using the pulley requires less force to push the object attached to the pulley.
C Using the pulley is harder than trying to lift the object straight up.
D Using the pulley is easier than trying to lift the object straight up.

22 Into what form of energy does this appliance convert electrical energy?

F mechanical energy
G potential energy
H sound energy
I thermal energy

23 Which group contains only renewable resources?

A water, wind, and coal

B plant matter, oil, and solar power

C petroleum, natural gas, and water

D sun, wind, and plant matter

24 Students plan experiments for growing grass. Which environment will most likely grow grass?

F a planter covered with thin, black plastic

G a planter covered by aluminum foil

H a planter placed in a clear, one-gallon plastic bag

I a planter placed under a bamboo screen

25 Which gets its food by tapping into tree trunks and taking out insects hiding under the bark?

A 

B 

C 

D 

26 How could you separate this mixture?

F by color

G by a magnet

H by shape and color

I by size

27 Which model **best** represents Earth's movement that results in what we know as day and night?

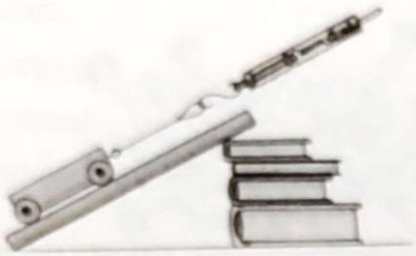
A a skier going down a mountain

B an ice skater spinning in a tight circle

C a tennis ball hit by a racket

D an arrow shot through the air

Use this diagram to answer questions 28 and 29.



28 Which change in the this set-up would reduce the amount of pull needed to move the cart up the ramp?

F remove two books to change the angle of the ramp

G change the ramp for a shorter ramp

H increase the mass of the cart

I increase the length of the wire used to pull the cart

29 A student applies a force to the cart to pull it up the ramp. Which other force acting on the cart might slow its motion?

A gravity

B mechanical energy

C a push from behind the cart

D increased mass

30 Kara has several mineral samples without labels. She knows only one sample contains iron. Which physical property would **best** help her determine which sample contains iron?

F magnetism

G particle size

H shape

I streak

31 Which describes a liquid?

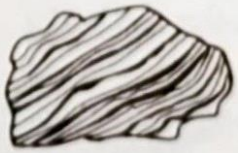
A has no volume

B has particles that are fairly rigid and fixed in place

C does not have mass that can be measured

D takes the shape of its container

32 A piece of mica breaks apart along even planes, producing smooth surfaces. Which property of minerals does this show?



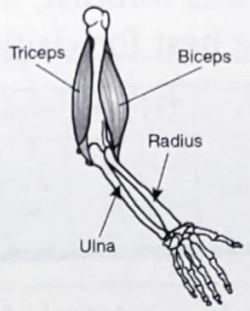
F cleavage

G hardness

H luster

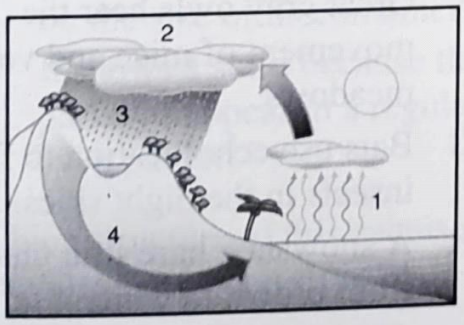
I texture

33 Which two human body systems does this illustration show?



A muscular and circulatory
B nervous and skeletal
C respiratory and circulatory
D skeletal and muscular

34 Which step in the water cycle represents water changing from liquid to gas?



F 1
G 2
H 3
I 4

35 Which correctly orders these space objects from smallest to largest?

A planets, moons, asteroids, comets
B galaxies, stars, solar systems, planets
C asteroids, planets, solar systems, galaxies
D moon, planets, meteors, stars

36 Which is an example of kinetic energy?

F a soccer ball lying on the grass
G a swing hanging from a tree branch
H a car parked in a driveway
I a tennis ball bouncing against a wall

37 Which event occurs after one complete rotation of Earth?

A a change from one day to the next day
B a change from one month to another month
C a change of summer to fall
D a change from one year to the next year

38 What is the amount of matter in a solid, liquid, or gas called?

F mass
G temperature
H texture
I volume

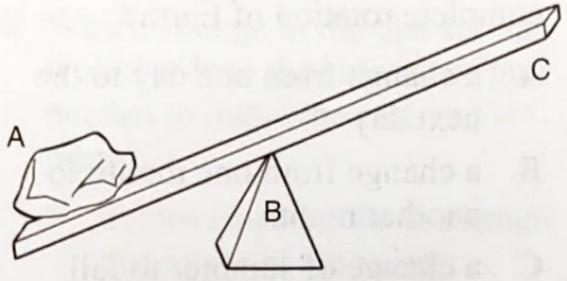
39 A campfire burns and leaves ash behind. What causes the ash?

A a chemical change
B a physical change
C a chemical property
D a physical property

40 Which item in a solar system produces the **most** energy and gravitational pull?

F comet
G moon
H planet
I sun

Use this diagram to answer questions 41 and 42.



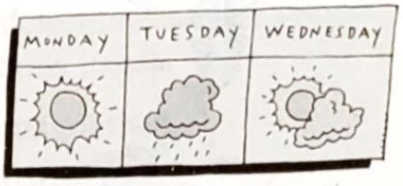
41 Which type of energy makes this simple machine work?

A chemical energy
B electrical energy
C light energy
D mechanical energy

42 Which type of force will cause the position of the rock to change?

F a pull applied to point C
G a pull applied to point A
H a push applied to point C
I a push applied to point B

43 The class is planning a trip to a local organic farm. According to this weather forecast, which days would be **best** for visiting the farm?



A Monday and Tuesday
B Tuesday and Wednesday
C Monday, Tuesday, and Wednesday
D Monday and Wednesday

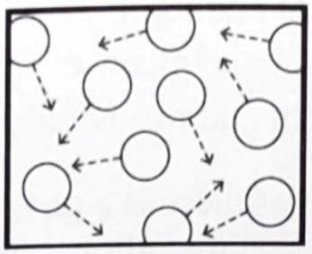
44 Which of these describes a behavioral adaptation that helps the animal survive?

F Great gray owls hear the movement of mice and voles in meadows.
G Bats use echolocation to find insects in the night skies.
H A snowshoe hare's fur changes from brown to white.
I An Alaska brown bear hibernates through winter.

45 The Smith family is building a new house and wants to use renewable energy for electricity. Which energy source do they need?

A coal
B natural gas
C oil
D solar

46 Does this illustration show a solid, a liquid, or a gas, and how do you know?



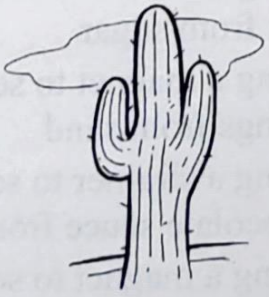
F It shows a liquid because it takes the shape of its container and the particles flow closely together.

G It shows a solid because the particles are close and compact.

H It shows a gas because the arrangement of particles is loose and the volume depends on the size of its container.

I It shows a solid because the particles appear in a regular, even pattern.

47 Which structure of this cactus provides protection from plant eaters?



A its large size

B its thick stems

C its deep roots

D its spines

48 What function do these leaves have?

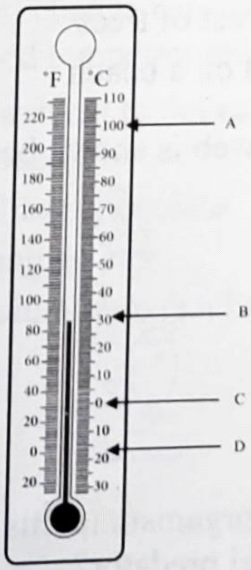
F to get water from the soil

G to transport water through the plant

H to take in sunlight and carbon dioxide

I to produce flowers, fruit, and seeds

49 It is a nice summer day. Which reading on the thermometer **most likely** show the correct air temperature for this day?



A A

B B

C C

D D

50 How does the state of ice change when it melts?

F It changes from a solid to a liquid.

G It changes from a gas to a liquid.

H It changes from a solid to a gas.

I It changes from a liquid to a gas.

51 You have a jar filled with types of uncooked macaroni. What would be the **best** way to sort the macaroni?

A by color

B by shape

C by ingredients

D by cost

52 Which of these resources can be replaced by humans?

F a vein of gold in rock

G a rushing river

H a forest of trees

I sand on a beach

53 A food web is shown below.

Which organism in this group is the top-level predator?

A cricket

B hawk

C rabbit

D toad

54 Which types of energy do we get from the sun?

F chemical and heat

G heat and light

H light and electric

I light and mechanical

55 Which of these is a physical adaptation that allows an animal to survive?

A Japanese macaques soak in a hot spring to stay warm during winter.

B Pufferfish can blow themselves up to twice their normal size to hold off predators.

C Sandhill cranes migrate between Texas and the Arctic for breeding and food supplies.

D Dolphins herd fish into bait balls to make it easier to catch their food.

56 Which method will allow you to separate two solids in a mixture?

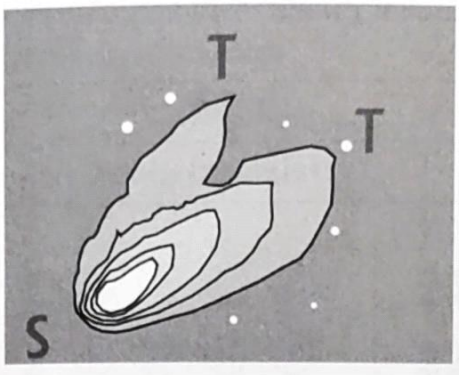
F using 100 mL water to separate salt from sugar

G using a magnet to separate iron filings from sand

H using a strainer to separate chocolate sauce from milk

I using a magnet to separate iron and steel scrapings

57 Which space object is shown in the illustration?



A asteroid
B comet
C meteor
D moon

58 Which property of matter could be described as gritty, rough, or smooth?

F luster
G shape
H smell
I texture

59 A student questions how an object's height affects its potential energy. He designs an investigation and drops a golf ball from 0.5 m, 1 m, and 1.5 m into a bucket of flour, with the flour surface leveled. He predicts that the ball hitting the flour will make a crater and that the crater size will increase as the height from which the ball drops increases. What is the variable in this experiment?

A the golf ball and the bucket of flour
B the weight of each golf ball dropped
C the height from which the ball drops
D the size of the craters formed

60 Which of these is an example of a physical change caused by increased temperature?

F an antacid tablet causing water to bubble
G melting chocolate
H frying an egg
I an aluminum can being crushed

Name _____ Date _____

Practice Test
Form A

PLEASE NOTE
• Use only a no. 2 pencil.
• Example: ◯●◯◯
• Erase changes COMPLETELY.

FSSA Practice Test Form A

Mark one answer for each question.

1	Ⓐ	Ⓑ	Ⓒ	Ⓓ
2	Ⓕ	Ⓖ	Ⓗ	Ⓘ
3	Ⓐ	Ⓑ	Ⓒ	Ⓓ
4	Ⓕ	Ⓖ	Ⓗ	Ⓘ
5	Ⓐ	Ⓑ	Ⓒ	Ⓓ
6	Ⓕ	Ⓖ	Ⓗ	Ⓘ
7	Ⓐ	Ⓑ	Ⓒ	Ⓓ
8	Ⓕ	Ⓖ	Ⓗ	Ⓘ
9	Ⓐ	Ⓑ	Ⓒ	Ⓓ
10	Ⓕ	Ⓖ	Ⓗ	Ⓘ
11	Ⓐ	Ⓑ	Ⓒ	Ⓓ
12	Ⓕ	Ⓖ	Ⓗ	Ⓘ
13	Ⓐ	Ⓑ	Ⓒ	Ⓓ
14	Ⓕ	Ⓖ	Ⓗ	Ⓘ
15	Ⓐ	Ⓑ	Ⓒ	Ⓓ
16	Ⓕ	Ⓖ	Ⓗ	Ⓘ
17	Ⓐ	Ⓑ	Ⓒ	Ⓓ
18	Ⓕ	Ⓖ	Ⓗ	Ⓘ
19	Ⓐ	Ⓑ	Ⓒ	Ⓓ
20	Ⓕ	Ⓖ	Ⓗ	Ⓘ
21	Ⓐ	Ⓑ	Ⓒ	Ⓓ
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23	Ⓐ	Ⓑ	Ⓒ	Ⓓ
24	Ⓕ	Ⓖ	Ⓗ	Ⓘ
25	Ⓐ	Ⓑ	Ⓒ	Ⓓ
26	Ⓕ	Ⓖ	Ⓗ	Ⓘ
27	Ⓐ	Ⓑ	Ⓒ	Ⓓ
28	Ⓕ	Ⓖ	Ⓗ	Ⓘ
29	Ⓐ	Ⓑ	Ⓒ	Ⓓ
30	Ⓕ	Ⓖ	Ⓗ	Ⓘ
31	Ⓐ	Ⓑ	Ⓒ	Ⓓ
32	Ⓕ	Ⓖ	Ⓗ	Ⓘ
33	Ⓐ	Ⓑ	Ⓒ	Ⓓ
34	Ⓕ	Ⓖ	Ⓗ	Ⓘ
35	Ⓐ	Ⓑ	Ⓒ	Ⓓ
36	Ⓕ	Ⓖ	Ⓗ	Ⓘ
37	Ⓐ	Ⓑ	Ⓒ	Ⓓ
38	Ⓕ	Ⓖ	Ⓗ	Ⓘ
39	Ⓐ	Ⓑ	Ⓒ	Ⓓ
40	Ⓕ	Ⓖ	Ⓗ	Ⓘ
41	Ⓐ	Ⓑ	Ⓒ	Ⓓ
42	Ⓕ	Ⓖ	Ⓗ	Ⓘ
43	Ⓐ	Ⓑ	Ⓒ	Ⓓ
44	Ⓕ	Ⓖ	Ⓗ	Ⓘ
45	Ⓐ	Ⓑ	Ⓒ	Ⓓ
46	Ⓕ	Ⓖ	Ⓗ	Ⓘ
47	Ⓐ	Ⓑ	Ⓒ	Ⓓ
48	Ⓕ	Ⓖ	Ⓗ	Ⓘ
49	Ⓐ	Ⓑ	Ⓒ	Ⓓ
50	Ⓕ	Ⓖ	Ⓗ	Ⓘ
51	Ⓐ	Ⓑ	Ⓒ	Ⓓ
52	Ⓕ	Ⓖ	Ⓗ	Ⓘ
53	Ⓐ	Ⓑ	Ⓒ	Ⓓ
54	Ⓕ	Ⓖ	Ⓗ	Ⓘ
55	Ⓐ	Ⓑ	Ⓒ	Ⓓ
56	Ⓕ	Ⓖ	Ⓗ	Ⓘ
57	Ⓐ	Ⓑ	Ⓒ	Ⓓ
58	Ⓕ	Ⓖ	Ⓗ	Ⓘ
59	Ⓐ	Ⓑ	Ⓒ	Ⓓ
60	Ⓕ	Ⓖ	Ⓗ	Ⓘ