

**KEY- ANSWERS ARE BOLDED**

**Science 7 Practice Final Exam**

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

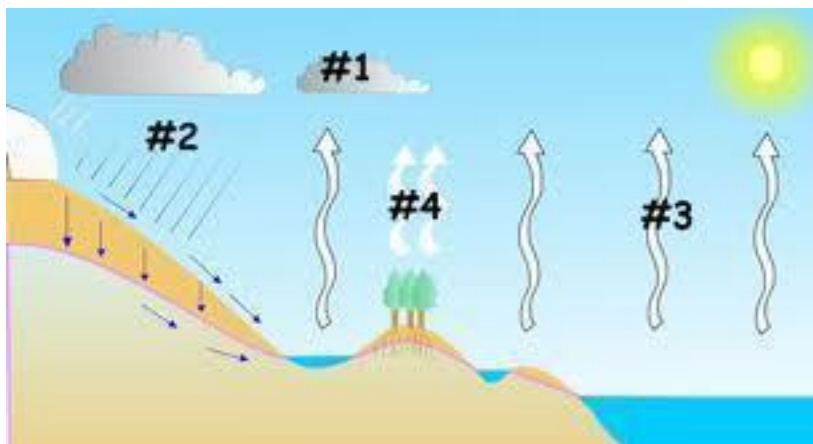
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**Please read each question carefully. Good Luck!**

**Unit A: Interactions and Ecosystems**

1.

Identify the parts as labeled in the following diagram of the water cycle. Please choose the multiple choice that correctly labels the water cycle process.



- a) 1: condensation, 2: precipitation, 3: evaporation, 4: transpiration
- b) 1: evaporation, 2: precipitation, 3: condensation, 4: transpiration**
- c) 1: condensation, 2: precipitation, 3: transpiration, 4: evaporation
- d) 1: precipitation, 2: transpiration, 3: evaporation, 4: condensation

Use this photograph to answer question #2.



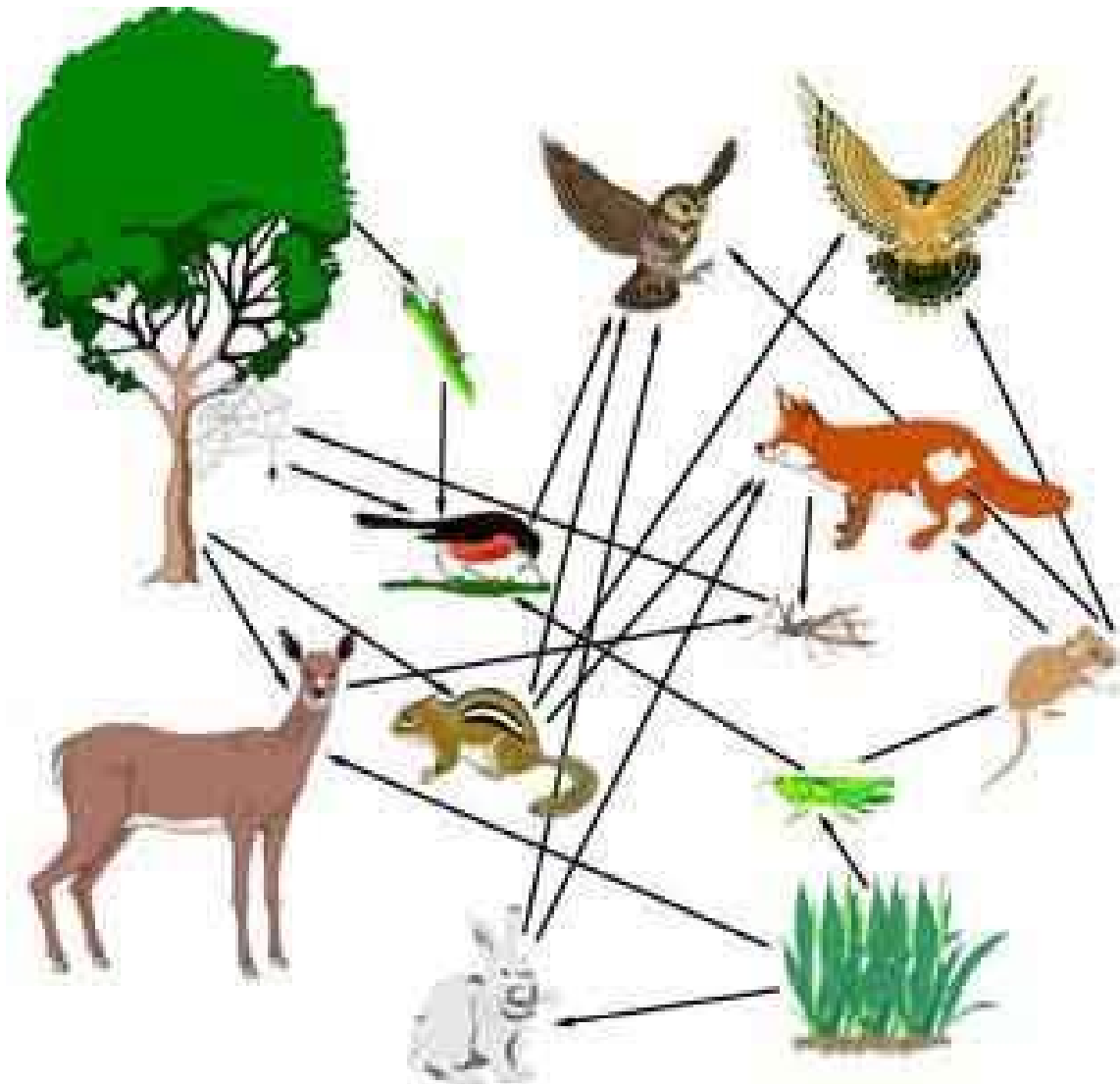
2. The shark and fish in this photograph have a relationship. The shark provides the fish with protection and the fish eats the parasites off of the shark. What type of relationship is this?
  - a. Parasitic
  - b. Mutualism**
  - c. Predator-prey
  - d. Commensalism
  
3. What kind of area might undergo secondary succession?
  - a. grassland
  - b. cold desert
  - c. burned forest**
  - d. bare lifeless rock
  
4. Which of the following are examples of abiotic parts of an environment?
  - a. air and plants
  - b. water and soil**
  - c. soil and trees
  - d. air and animals

5.

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6. Which one of the following statements about an organism's niche in a community is true?
  - a. **One organism usually fills several niches.**
  - b. An organism's niche is always the same.
  - c. An organism's niche is its home.
  - d. Only certain animals have niches.
  
7. A food pyramid is composed of grass, grasshoppers, robins, and cats. Which will provide the fewest number of organisms?
  - a. Grass
  - b. Grasshoppers
  - c. **Cats**
  - d. Robins

Use the following diagram to answer questions 7-9.



8. The previous illustration is a diagram of a food
  - a. **web**
  - b. chain
  - c. pyramid
  - d. system
  
9. What would the rabbit in the photograph be considered?
  - a. **Herbivore**
  - b. Omnivore
  - c. Parasite
  - d. Producer

10. If the grass were contaminated with pesticides, which organism would be most affected?
- a. Grasshopper
  - b. Squirrel
  - c. Tree
  - d. Owl**

**Unit 2: Plants for Food and Fiber**

11. Which part of the plant is responsible for absorbing water?
- a. roots**
  - b. stems
  - c. leaves
  - d. flowers
12. A student made the following notes about a plant.
- I. The plant is covered in spines.
  - II. The plant has a taproot.
  - III. The plant stems and leaves are hard and waxy.
- What type of climate is this plant best suited for?
- a. hot and humid climate
  - b. moist and warm climate
  - c. dry climate**
  - d. cold climate
13. A rose breeder crossed a rose of one colour with a rose of another colour. This process is an example of what process?
- a. genetic modification
  - b. asexual reproduction
  - c. selective breeding**
  - d. grafting
14. Which of the following is the most important reason to conserve the soil?
- a. Healthy soil means a steady and plentiful food and fibre supply for the future.**
  - b. We do not have the technology to produce plants without soil.
  - c. Soil erodes.
  - d. We need soil for yards and houses.

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Use the following scenario to answer question 13:

The following are the samples from a germination experiment done over two weeks in Mr. Brown's science class:

<b>Sample</b>	<b>Location</b>	<b>Temperature</b>	<b>Environment</b>
1	sunny window	20° C	moist topsoil
2	sunny window	20° C	moist paper towel
3	dark cupboard	20° C	moist paper towel
4	dark cupboard	20° C	dry paper towel

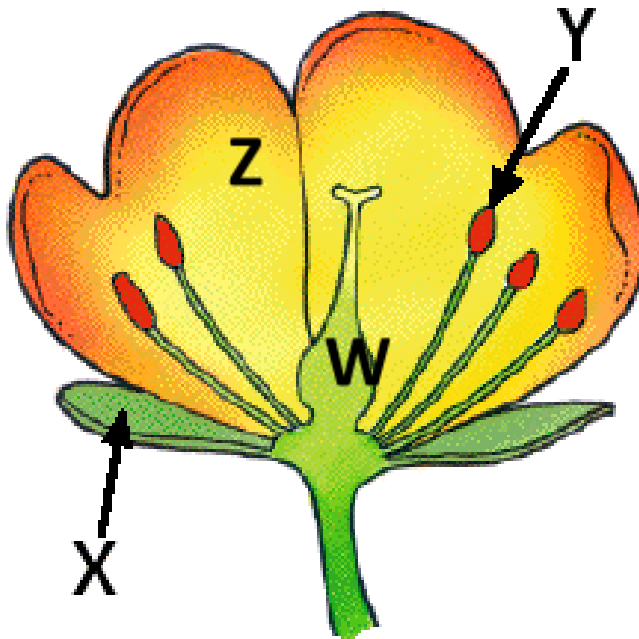
15. What is the responding variable in the experiment?

- a. temperature
- b. germination rate**
- c. environment
- d. moisture level

16. What is the control variable in the experiment?

- a. temperature**
- b. germination rate
- c. environment
- d. moisture level

Use the following diagram to answer question 15 and 16:



17. Select the response that correctly identifies the labeled parts in the diagram.

- a. W: Ovule, X: Sepal, Y: Petal, Z: Nectary
- b. W: Style, X: Stamen, Y: Filament, Z: Sepal
- c. W: Stigma, X: Nectary, Y: Anther, Z: Petal
- d. **W: Ovary, X: Sepal, Y: Anther, Z: Petal**

18. What is the function of part Y:

- a. Photosynthesis
- b. **Pollen production**
- c. Egg production
- d. Transpiration

19. Strawberries reproduce by runners. Which type of reproduction is this?

- a. Sexual
- b. **Asexual**
- c. Pollination
- d. Cross-pollination

**Unit 3: Heat and Temperature**

20. Match the change in state with the term that is used to describe it.

**W: Evaporation**  
**X: Fusion (Freezing)**  
**Y: Sublimation**  
**Z: Melting (Solidification)**

**1: solid to liquid**  
**2: liquid to gas**  
**3: solid to gas**  
**4: liquid to solid**

- a. W: 1, X: 2, Y: 4, Z: 3
- b. W: 2, X: 4, Y: 3, Z: 1**
- c. W: 2, X: 3, Y: 1, Z: 4
- d. W: 3, X: 2, Y: 1, Z: 4

21. What kind of energy is the source of the heat energy released from a burning match?

- a. chemical
- b. thermal**
- c. friction
- d. electrical

22. Match the description with the correct temperature (in degrees celcius):

<b>W: Ice cream</b>	<b>1: 37</b>
<b>X: Bath water</b>	<b>2: 55</b>
<b>Y: Hand when closed into a fist</b>	<b>3: 21</b>
<b>Z: Hot coffee</b>	<b>4: 5</b>

- a. W: 4, X: 3, Y: 1, Z: 2**
- b. W: 3, X: 5, Y: 2, Z: 1
- c. W: 4, X: 3, Y: 2, Z: 1
- d. W: 4, X: 2, Y: 1, Z: 3

23. If I pour boiling hot water onto an ice cube. How many states of matter are present the moment the ice cube is completely melted?

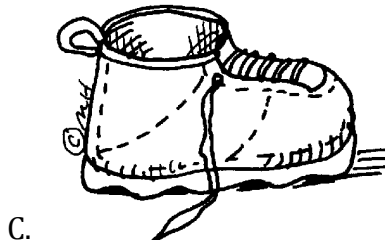
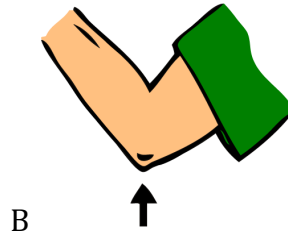
- a. 1
- b. 2
- c. 3
- d. 4

24. Bimetallic strips are used in the operation of a thermostat. What is their function?
- to act as sensors
  - act as signals
  - to act as responders
  - all of the above**
25. What material would you want to be used when designing a coffee thermos?
- An effective insulator**
  - A weak insulator
  - An effective conductor
  - A weak conductor
26. Which of the following items would be a stronger conductor than plastic?
- Rubber
  - Wood
  - Soil
  - Iron**
27. There are three important ideas that make up the particle model of matter. Which of the following statements is *not* one of these ideas?
- All substances are made of particles, some of which cannot be seen.**
  - All substances are made of tiny particles too small to be seen.
  - Particles are always in motion.
  - Particles have spaces between them.
28. Why can a bridge or concrete sidewalk experience damage when there is a temperature increase?
- The material expands and does not have enough space**
  - The material contracts and does not have enough space.
  - The particles move faster and therefore closer together.
  - The particles move slower and therefore farther apart.

#### Unit 4: Structures and Forces

29. Sometimes material begins to weaken if it is used a lot or if it gets old. This material is said to be undergoing
- breakage.
  - compression failure.
  - fatigue.**
  - stress.

30. Which of the following photographs depicts an interlocking shape joint?



31. A man is pulling on a dog's leash. Which of the following best describes this situation?

- a. the rope is fatigued
- b. the rope is an rigid joint
- c. the rope is under tension**
- d. the rope is being compressed



32. An object was placed on a table and caused the table to collapse. In this case, the table was not able to support the \_\_\_\_\_ placed on it.

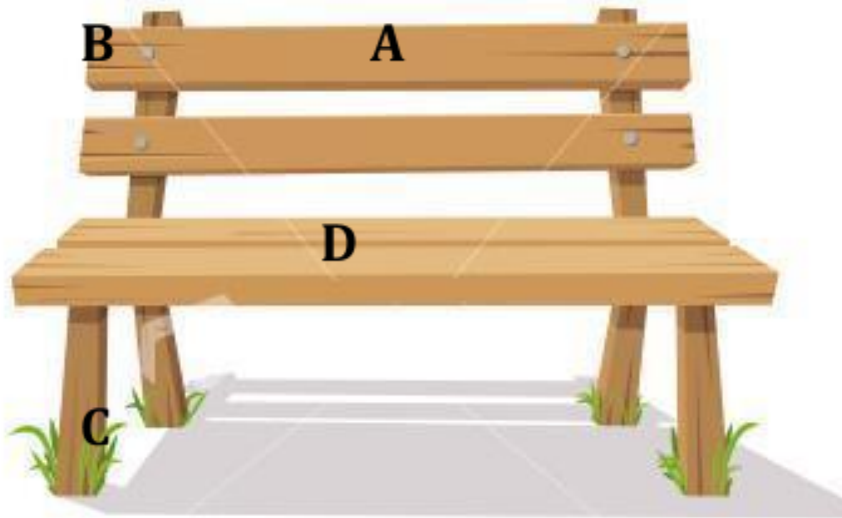
- a. Gravity
- b. impact
- c. Force
- d. Load**

33. Which of the following is *not* present in a frame structure, such as a house?

- a. a skeleton of strong material
- b. an interior that is mostly empty space
- c. primarily mobile joints**
- d. walls that divide rooms but bear little load

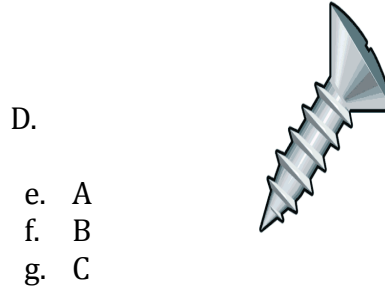
34. Mr Jones hired a construction company to remodel his home. They did a walk through of the house and discussed the plans for remodeling, including which walls he could and could not have knocked out. Which walls would the company tell Mr Jones he could not have knocked out?
- a. Frame walls
  - b. Outside walls
  - c. Partition walls
  - d. Load bearing walls**

Use the following photograph to answer question 34.



35. Which letter represents the weakest part of the structure?
- a. A
  - b. B**
  - c. C
  - d. D

36. Which nail would have the least amount of friction



**Unit 5: Planet Earth**

36. Match the type of **weathering** with the description of what it is caused by.

- 1: Acid from plant roots**
- 2: Temperature change**
- 3: Frost wedging**
- 4: Dissolving materials**

- X: Mechanical**
- Y: Chemical**
- Z: Biological**

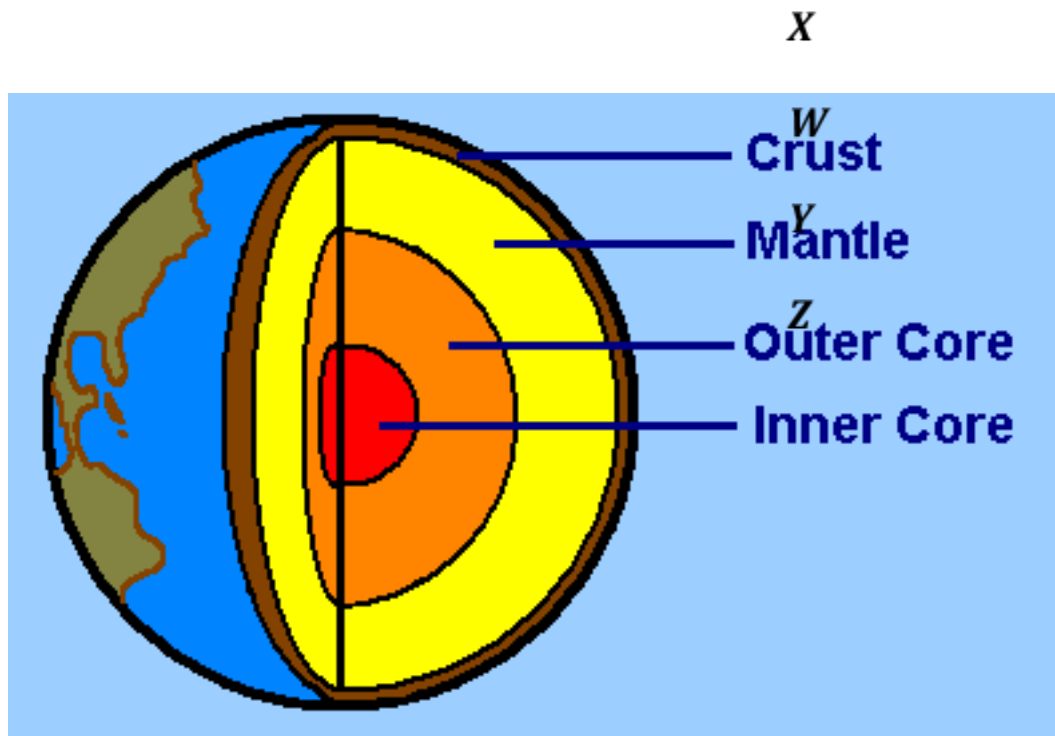
- a. 1: Y, 2: X, 3: X, 4: Z
- a. 1: Z, 2: Y, 3: Z, 4: X
- b. 1: Z, 2: Y, 3: X, 4: Y**
- c. 1: Y, 2: X, 3: Z, 4: X

37. On what basis are the three types of rocks classified?

- a. where they are found
- b. how they are formed**
- c. when they are formed
- d. their location in strata

38. Damage done to the Earth's surface as glaciers move, dragging rocks with them is known as:
- a. Scrapes
  - b. Grooves
  - c. Striations**
  - d. Indentations
39. A Grade 7 science class wanted to test which speed of water flow would cause the most erosion. They set up containers of soil as streambeds and used a hose with a nozzle for the stream. Which of the following would be the manipulative variable?
- a. Hose
  - b. Type of soil
  - c. Speed of water**
  - d. Amount of erosion
40. Which type of rocks are formed when magma cools inside the Earth's surface?
- a. Intrusive igneous**
  - b. Extrusive igneous
  - c. Intrusive metamorphic
  - d. Extrusive metamorphic

41. Put the following labels in order of inner core, outer core, mantle and crust:



- a. X, W, Y, Z
  - b. Z, Y, W, X**
  - c. W, X, Y, Z
  - d. Z, Y, X, W
42. Mineral grains in igneous rocks become flattened as they change to metamorphic rocks because of
- a. pressure increases from overlying rocks
  - b. heat increases
  - c. changes in chemistry
  - d. both a and b**
43. The difference between mechanical and chemical weathering is
- a. the length of time each takes to break up a rock
  - b. that each occurs only in certain parts of the world
  - c. the way they affect the composition of a rock**
  - d. that only chemical weathering involves water
44. Why weren't scientists willing to accept the Theory of Continental Drift?
- a. the continents didn't fit exactly like jig-saw pieces
  - b. the theory could not explain why the continents moved**

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- c. fossil evidence indicated that the theory was wrong
- d. rocks on a different continents could not be matched to help explain the theory

45. Which of the following scales is that which is used to test the hardness of minerals?

- a. **Moh's**
- b. Wegner's
- c. Galileo's
- d. Richter's

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

Answer Sheet

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