



Middle School Science - Sample

Problems 1-50

Name: _____

School: _____

Grade: _____

Correct: _____

Incorrect: _____

SCORE: (5 x Correct - 2 x Incorrect =) _____

Scorer's Initials: _____

Scorer's Initials: _____

DO NOT BEGIN UNTIL YOU ARE INSTRUCTED TO DO SO

This is a 30-minute test. There are 50 multiple-choice science problems. Use a pen or pencil to write the capital letter corresponding to the answer in the blank provided on the answer sheet at the end of the test.

You may use scratch paper during this test. You may not use a calculator.

Scoring: Five points will be awarded for every correct answer. For every incorrect answer, two points will be deducted. No deduction is taken for skipped or unanswered problems.

(NOTE: This sample test has only 35 problems.)

Science Contest Grades 6-8

Multiple Choice Directions: Place the capital letter of the *best* answer for each question below by its corresponding space on your answer sheet or Scantron sheet.

1. Which of the following would be considered a limiting factor for an expanding fruit fly colony?

A. An endless food supply
 B. Increased humidity
 C. Lack of water
 D. Neutral pH in topsoil

2. Each molecule of butane, $\text{CH}_3(\text{CH}_2)_2\text{CH}_3$ contains how many hydrogen atoms?

A. 8 C. 12
 B. 10 D. 14

3. The "joule" is a unit of measure of

A. work C. weight
 B. force D. temperature

4. Granite is a(an)

A. metamorphic rock
 B. sedimentary rock
 C. extrusive igneous rock
 D. intrusive igneous rock

5. At which of the following is the South Pole located?

A. 90°S Latitude
 B. 90°S Longitude
 C. 180° S Latitude
 D. 180°S Longitude

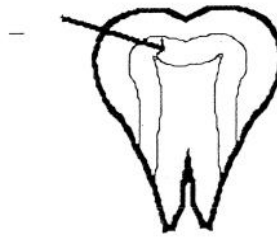
6. Two cities are located on the same isobar. These two cities have the same _____.

A. temperature
 B. atmospheric pressure
 C. wind
 D. precipitation

7. What is the name of the largest moon orbiting Saturn?

A. Io C. Titan
 B. Europa D. Janus

8. In the figure below of a tooth, identify the part of the tooth labeled with an arrow.



A. pulp C. enamel
 B. dentine D. gum

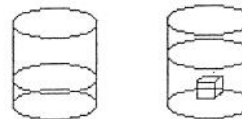
9. Which of the following is an example of a noninfectious disease?

A. malaria C. cholera
 B. polio D. cardiovascular disease

10. Types of substances that accept protons during reaction are

A. acids C. salts
 B. bases D. alloys

11. A 10-gram block is placed in 3 liters of water as shown. Find the density of the block.



3L 5L

A. 2 g/L C. 5 g/L
 B. 3.33 g/L D. 10 g/L

12. Which constellation is not contained in the Milky Way Galaxy?

A. Andromeda C. Cassiopeia
 B. Orion D. Scorpius

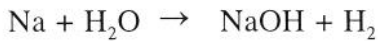
3. Which layer of the atmosphere is between the stratosphere and thermosphere?

- A. ionosphere C. troposphere
 B. mesosphere D. exosphere

14. Lobsters and shrimps are examples of _____.

- A. crustaceans C. myriapods
 B. mollusks D. coelenterates

15. After balancing this chemical equation, the coefficient of water will be _____.



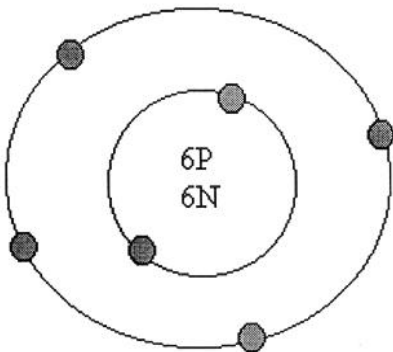
- A. 1 C. 4
 B. 2 D. 6

16. Put these discoveries in chemistry in order chronologically from earliest to latest.

- I. buckyballs
 II. first periodic table
 III. carbon-dating
 IV. discovery of nitrogen

- A. III, II, IV, I C. IV, II, III, I
 B. I, IV, III, II D. II, IV, I, III

17. What is the atomic mass of the atom shown below?



- A. 4 C. 12
 B. 6 D. 16

18. Which of the following is the poorest conductor of electricity?

- A. lithium plates C. copper pennies
 B. iron nails D. rubber shoe soles

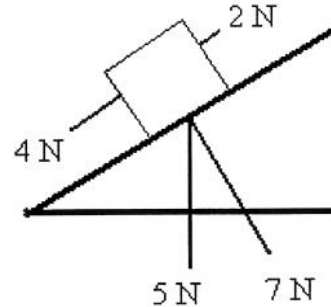
19. What is the softest mineral used for classification on Mohs Hardness Scale?

- A. fluorite C. quartz
 B. talc D. topaz

20. When the sun, earth, and moon are in line with the moon between the earth and sun, which type of tides occur?

- A. ebb tides C. neap tides
 B. spring tides D. high tides

21. In the force diagram below, how much is the normal force?



- A. 2N C. 5N
 B. 4N D. 7N

22. The movement of air towards water is called

- A. land breezes C. arctic winds
 B. sea breezes D. trade winds

23. What does the Beaufort scale measure?

- A. temperature C. humidity
 B. wind velocity D. wind chill

24. Who was the first man in space?

- A. Alan Shepard C. Neil Armstrong
 B. John Glenn D. Yuri Gagarin

25. Which of the following can be caused by anticyclones?

- A. summer droughts
 B. cloudy days
 C. low pressure storms
 D. fog

26. During an experiment, a chunk of pure sodium is dropped into a bucket of water. Which of the following does not happen as a result of this reaction?

- A. small explosion due to the reaction
 B. lye is formed as a product
 C. table salt is formed as a product

27. Which of the following is not part of some natural cycle?
- raindrop lands in the ocean
 - plant exhales oxygen
 - lava spews from a volcano
 - aluminum soda can tosses in wastebasket
28. Professors at a university in northern England believe hazelnuts could be used to produce energy to power electric and hybrid cars. When hazelnut shells are burned they release gases. Which of the following gases released by the burning of hazelnuts would be used to power the electric and hybrid cars?
- methane
 - carbon monoxide
 - nitrogen
 - hydrogen
29. Which of the following is the result of water flowing over rocks that resist erosion and then meeting weaker rocks downstream that become worn away?
- volcano
 - beach
 - waterfall
 - artesian well
30. Who published *On the Origin of Species by Means of Natural Selection* in 1859?
- Charles Darwin
 - Albert Einstein
 - Alfred Nobel
 - Louis Pasteur
31. Which phylum are humans members of?
- Primates
 - Chordata
 - Mammalia
 - Hominoidea
32. Two seeds are planted in the ground close to each other with the same dirt composition. Both areas around the seeds are given the same amount of water twice a day, at 6:00am and 6:00pm. A plastic bucket continuously covers one seed's area, except during watering. Which of the following questions could be asked with this experiment?
- What are the effects of feeding plants water twice a day?
 - What are the effects of feeding plants at regular intervals?
 - What are the effects of limited sunlight on growing plants?
 - What are the effects on growing plants when one plant is talked to and the other is not?

33. Using the genetics chart below, determine the probability that an offspring will have blue eyes.

B = Brown eyes (dominant)
b = Blue eyes (recessive)

	Father		
	b	b	
Mother	B	?	?
	b	?	?

- 0
 - 1/4
 - 1/2
 - 3/4
34. An atom has one more electron than protons. This atom is a(an)
- isotope
 - ion
 - molecule
 - compound
35. Which of the following is a heterogeneous mixture?
- table salt
 - water
 - granite
 - gasoline

Student ID#: _____

Grade Level: _____

SCIENCE CONTEST Answer Sheet

School #: _____

Score: _____

1. _____

21. _____

2. _____

22. _____

3. _____

23. _____

4. _____

24. _____

5. _____

25. _____

6. _____

26. _____

7. _____

27. _____

8. _____

28. _____

9. _____

29. _____

10. _____

30. _____

11. _____

31. _____

12. _____

32. _____

13. _____

33. _____

14. _____

34. _____

15. _____

35. _____

16. _____

17. _____

18. _____

19. _____

20. _____

Answer KEY

1. C
2. B
3. A
4. D
5. A
6. B
7. C
8. B
9. D
10. B
11. C
12. A
13. B
14. A
15. B
16. C
17. C
18. D
19. B
20. B
21. D
22. A
23. B
24. D
25. A
26. C
27. D
28. D
29. C
30. A
31. B
32. C
33. C
34. B
35. C