



Science Bee 2018

Level 5



A Catalyst For Better Education In India
Science Bee Contest 2018
Level 5

Name of the student: _____

Parent Cell Phone: _____

Student Grade: _____

Score Card

For the use of Science Bee coordinator ONLY:

Score [1-35] : _____

Score [36-40] : _____

Total Score : _____



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1. Which sequence shows the steps of the scientific method in the correct order, use the table below for reference

Scientific Method	
Step	Description
A	Form hypothesis
B	Analyze data
C	Perform experiment
D	Communicate results
E	Ask question

- A. E, A, C, B, D
- B. A, E, D, C, B
- C. E, C, A, B, D
- D. C, B, A, D, E

2. Animals that have a backbone are called

- A. invertebrates.
- B. vertebrates.
- C. monotremes.
- D. marsupials.

3. Making a forecast of what will happen is called

- A. classifying
- B. inquiry
- C. predicting
- D. hypothesis



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4. Shifting pieces of Earth's crust are called

- A. magmas
- B. volcanoes
- C. tectonic plates
- D. islands

5. When you test something you are performing a(n) _____ .

- A. observation
- B. knowledge
- C. experiment
- D. evidence

6. Matter is defined as anything that has _____ and _____

- A. Food, money
- B. volume, mass
- C. atoms, density
- D. money, buoyancy

7. Which is the thickest layer of Earth?

- A. Inner Core
- B. Crust
- C. Mantle
- D. Outer core



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8. What is weather?

- A. An area's long-term weather pattern
- B. The state of the atmosphere at a given place or time
- C. Large volume of air that has similar characteristics of temperature and water vapor content
- D. When large air masses of different density, moisture, and temperature meet

9. States of matter are

- A. the temperature at which a liquid boils and becomes a gas
- B. the law that states that for a fixed amount of gas at a constant temperature, the volume of the gas increases as its pressure decreases and the volume of the gas decreases as its pressure increases
- C. the term used to describe a physical or chemical change in which energy is given off
- D. the physical forms in which a substance can exist; includes solid, liquid, gas, and plasma

10. The law of reflection states that the angle of incidence is equal to the angle of

- A. refraction
- B. reflection
- C. traction
- D. diffraction

11. _____ is how particles of a gas fill a room.

- A. Diffusion
- B. Osmosis
- C. Flow
- D. Pouring



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12. What forms when an igneous rock is exposed to heat and pressure?

- A. magma
- B. sediment
- C. sedimentary rock
- D. metamorphic rock

13. Light from the Sun has a range of wavelengths that includes which of the following?

- A. visible spectrum.
- B. infrared light
- C. ultraviolet light
- D. all the above

14. Minerals are made up of

- A. tiny rock particles
- B. crystals
- C. copper
- D. gemstones

15. Compare a cup of hot coffee with the water from Atlantic Ocean. Which statement about thermal energy and temperature is correct?

- A. Water in the Atlantic Ocean has more thermal energy and a higher temperature.
- B. Water in the Atlantic Ocean has less thermal energy and a lower temperature.
- C. Water in the Atlantic Ocean has less thermal energy and a higher temperature
- D. Water in the Atlantic Ocean has more thermal energy and a lower temperature.



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16. The number of crests of a wave that moves past a given point in a unit of time is _____

- A. trough
- B. wave speed
- C. frequency
- D. photon

17. Place the categories in order from smallest to largest.

- A. biosphere, ecosystem, community, population, organism
- B. organism, population, community, ecosystem, biosphere
- C. biosphere, population, ecosystem, community, organism
- D. organism, community, ecosystem, population, biosphere

18. As the frequency of a sound wave increases, the wavelength

- A. decreases
- B. stays the same
- C. increases
- D. fluctuates

19. When a sample of matter changes from a liquid to a gas, this change is called

- A. condensation.
- B. freezing.
- C. melting.
- D. evaporation.

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20. If the electric fields of two charged objects form a closed pattern of field lines, the objects are _____ charged.

- A. negatively
- B. positively
- C. neutrally
- D. oppositely

21. A substance that cannot be separated or broken down into simpler substances by chemical means is a(n) _____ .

- A. metal
- B. element
- C. compound
- D. All of the above

22. What is a multimeter?

- A. An instrument that measures brightness
- B. An instrument that measures wind
- C. An instrument that measures power
- D. An instrument that measures force

23. A plastic ruler can get a positive charge by

- A. gaining a single negative charge.
- B. losing a single negative charge.
- C. gaining a single positive charge.
- D. losing a single positive charge.



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24. Plants use a green pigment called _____ to absorb energy from sunlight.

- A. chlorophyll
- B. chloroplasts
- C. chromosomes
- D. ribosomes

25. Which statement is true?

- A. Butterflies are amphibians.
- B. Newts are amphibians.
- C. Amphibians have hair.
- D. Amphibians are warm-blooded animals.

26. Sublimation

- A. A substance used in a chemical reaction.
- B. The process by which particles leave a liquid and become a gas.
- C. The process by which a solid changes directly into a gas.
- D. A substance made by a chemical reaction.

27. Who developed a system of classification?

- A. Carolus Linnaeus
- B. Theodor Schwann
- C. Robert Hooke
- D. Matthias Schleiden



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- 28. Some lifeforms in the kingdom of _____ can survive in extreme environments, including hot springs, salt water lakes, and the intestines of animals.**
- A. Fungi
 - B. Protista
 - C. Archaea
 - D. Bacteria
- 29. What system is responsible for breaking down food into energy?**
- A. excretory system
 - B. digestive system
 - C. skeletal system
 - D. circulatory system
- 30. Which sequence lists the organisms correctly from the lowest trophic level to highest?**
- A. hawk, weasel, chipmunk, seeds
 - B. chipmunk, weasel, seeds, hawk
 - C. seeds, chipmunk, weasel, hawk
 - D. seeds, chipmunk, hawk, weasel
- 31. This type of biome has trees that produce needles and cones, such as pine trees. The temperature can be very cold.**
- A. tundra
 - B. coniferous forest
 - C. deciduous forest
 - D. desert



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- 32. What are all the materials available on Earth for human use called?**
- A. the hydrosphere
 - B. energy
 - C. natural resources
 - D. renewable resources
- 33. Shrimp and spiders are both considered to be _____ because they have jointed legs, a segmented body, and an exoskeleton.**
- A. annelids
 - B. arthropods
 - C. echinoderms
 - D. mammals
- 34. At the end of the cell respiration process, _____ are released.**
- A. sugar, energy, and water
 - B. oxygen, energy, and carbon dioxide
 - C. carbon dioxide, water, and energy
 - D. sugar, carbon dioxide, and water
- 35. Superficial resemblance of a species to its natural surrounding to avoid being eaten by predators or being seen by prey is _____**
- A. mimicry.
 - B. use of tools.
 - C. migration.
 - D. camouflage.

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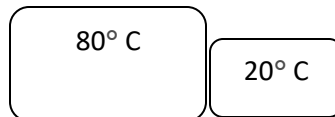
36. When a wave source is moving toward or away from an object, the wavelength changes, a phenomenon known as the _____.

37. _____ is a complex chemical process by which green plants use the energy of sunlight to change water and carbon dioxide into glucose for food.

38. Look at the drawing below. It shows a spoon in a bowl of water. The spoon looks broken because the light is being _____

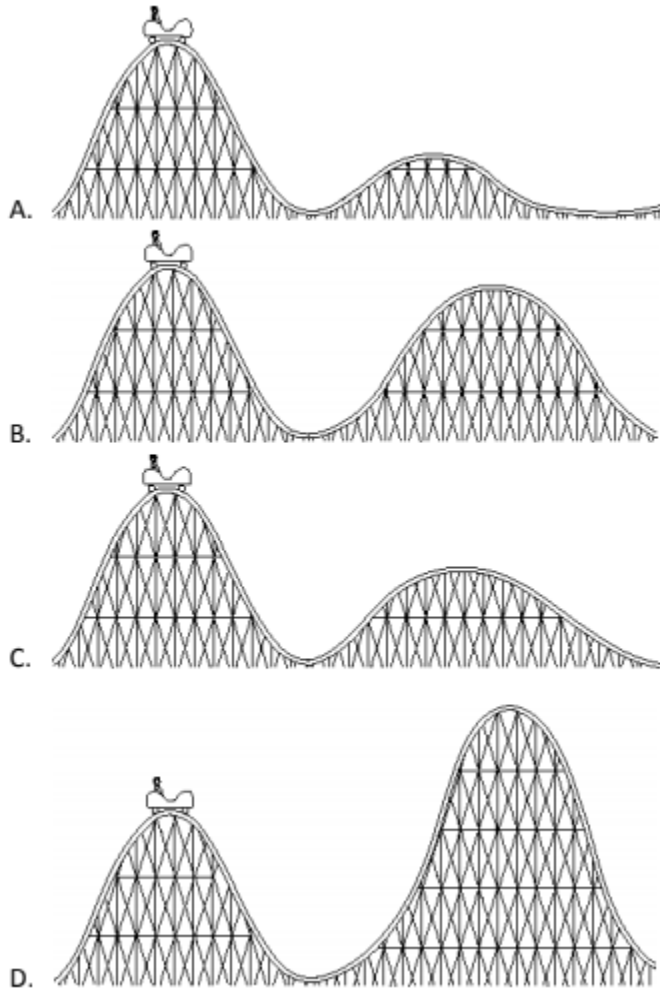


39. A block that is 80°C is placed next to a 20°C block. The warmer block heats the cooler block by the process of _____



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40. Which roller coaster will not have enough kinetic energy at the bottom of the first hill to carry the car over the second hill?





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Level 5 Answer Keys:

S.No	Answer
1	A
2	B
3	C
4	C
5	C
6	B
7	C
8	B
9	D
10	B
11	A
12	D
13	D
14	A
15	D
16	C
17	D
18	A
19	D
20	D
21	B
22	C
23	B
24	A
25	B
26	C
27	A
28	c
29	B
30	C
31	B
32	C



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33	B
34	C
35	D
36	Doppler effect
37	Photosynthesis
38	Refraction
39	Conduction
40	D