

Markhor Junior Contest ®

Pioneer Level (Class VII & VIII) Science 2008

There are 25 questions, and each question carries two marks.

1. **Why is reproducibility important in science?**
 - a) It makes experiments more interesting.
 - b) It gives scientists fame.
 - c) It shows that results are reliable and not due to chance.**
 - d) It reduces the need for observations
2. **Which of these best describes how STEM differs from studying each subject separately?**
 - a) It ignores history and culture.
 - b) It connects knowledge to solve real-world problems through integration.**
 - c) It focuses only on technology.
 - d) It only uses experiments.
3. **Why was the microscope considered a revolutionary invention for science?**
 - a) It replaced telescopes.
 - b) It generated electricity.
 - c) It allowed direct study of microorganisms and cells.**
 - d) It prevented diseases.
4. **Why do muscle cells switch to anaerobic respiration during intense exercise?**
 - a) To produce more oxygen
 - b) Because oxygen supply is limited, so they produce energy without oxygen**
 - c) To store glucose
 - d) To release carbon dioxide faster
5. **Which group of organisms forms the largest biomass in an energy pyramid?**
 - a) Tertiary consumers
 - b) Secondary consumers
 - c) Primary consumers
 - d) Producers**
6. **Which of the following is an example of immunity gained after recovering from a disease?**
 - a) Natural passive immunity
 - b) Natural active immunity**
 - c) Artificial passive immunity
 - d) Artificial immunity only

Markhor Junior Contest ®

7. Which of the following is an example of good public hygiene practice?
- a) Open defecation
 - b) Proper garbage disposal**
 - c) Drinking dirty water
 - d) Sharing food with sick people
8. If the population of herbivores decreases sharply, what is the most likely effect?
- a) Producers increase, carnivores also increase
 - b) Producers increase, carnivores decrease**
 - c) Producers decrease, carnivores increase
 - d) Producers remain the same, carnivores increase
9. Which health problem can be linked to climate change?
- a) Tooth decay
 - b) Heat-related illnesses**
 - c) Broken bones
 - d) Hair loss
10. Which energy resource is both renewable and clean?
- a) Petroleum
 - b) Coal
 - c) Solar power**
 - d) Natural gas
11. Which of these is the best example of using renewable green energy at home?
- a) Running a diesel generator
 - b) Installing rooftop solar panels**
 - c) Burning coal for cooking
 - d) Using petrol heaters
12. The modern periodic table is arranged in order of:
- a) Atomic mass
 - b) Atomic number**
 - c) Density
 - d) Valence electrons only
13. Which of the following is an example of neutralization in daily life?
- a) Rusting of iron
 - b) Burning of coal
 - c) Using antacids to relieve stomach acidity**
 - d) Dissolving sugar in water

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14. When iron reacts with sulfur and forms iron sulfide (FeS), the product is a:

- a) Mixture
- b) Compound**
- c) Solution
- d) Alloy

15. A balloon moves forward when air rushes out backward. This is an example of:

- a) Inertia
- b) Momentum
- c) Newton's Third Law**
- d) Gravity

16. A device that converts chemical energy into electrical energy is:

- a) Generator
- b) Battery**
- c) Solar panel
- d) Turbine

17. The phenomenon that makes a straw look “bent” in a glass of water is:

- a) Reflection
- b) Refraction**
- c) Dispersion
- d) Diffraction

18. In humans, where are the chemical instructions for growth and development stored?

- a) Blood vessels
- b) Cell cytoplasm
- c) Cell nucleus**
- d) Lungs

19. Which characteristic is passed down from parents to their children?

- a) The colour of their clothes
- b) Eye colour**
- c) The size of their shoes
- d) Their favourite food

20. Which part of an atom moves around the nucleus?

- a) Proton
- b) Electron**
- c) Neutron
- d) Nucleus

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21. When two or more elements combine chemically, they form a:
- a) Mixture
 - b) Solution
 - c) Compound**
 - d) Alloy
22. Which substance is prepared from weakened or dead microorganisms to protect the body against a specific disease?
- a) Antacids
 - b) Antibiotics
 - c) Vaccine**
 - d) Hormone
23. Which of the following is an example of a physical change?
- a) Iron rusting
 - b) Burning of wood
 - c) Melting of ice**
 - d) Cooking food
24. Which factor determines the pitch of a sound?
- a) Amplitude
 - b) Frequency**
 - c) Speed
 - d) Echo
25. Which gas is mainly responsible for the greenhouse effect?
- a) Oxygen
 - b) Nitrogen
 - c) Carbon dioxide**
 - d) Helium