

**Multiple Choice Questions (MCQs)**

*(Choose the correct answer: A, B, C, D, or E.)*

1. Who proposed that matter is made of four elements: earth, fire, water, and air?
  - A) Aristotle
  - B) Galilio Gallilie
  - C) Democritus
  - D) Lavoisier
  - E) Dalton
  
2. Which scientist established that mass is conserved in chemical reactions?
  - A) John Dalton
  - B) William Crookes
  - C) Antonio Lavoisier
  - D) Benjamin Franklin
  - E) Joseph Proust
  
3. What was discovered through the cathode ray experiment?
  - A) Protons
  - B) Electrons
  - C) Atomic nucleus
  - D) Neutrons
  - E) Isotopes
  
4. What is NOT a postulate of Dalton's atomic model?
  - A) Atoms of one element cannot be changed into another.
  - B) Atoms of the same element are identical.
  - C) Atoms can be created or destroyed.
  - D) Atoms are indivisible.
  - E) Atoms of different elements combine in a simple ratio to form compounds.
  
5. Who conducted the cathode ray experiment that led to the discovery of electrons?
  - A) Joseph Proust
  - B) William Crookes
  - C) J.J. Thomson
  - D) John Dalton
  - E) Humphry Davy

6. What happens when a high voltage is applied to a gas discharge tube?
- A) The anode emits electrons.
  - B) The gas turns into a liquid.
  - C) Green-colored rays are observed traveling from cathode to anode.
  - D) The gas releases neutral particles.
  - E) No visible changes occur.
7. Which scientist conducted early experiments on static electricity?
- A) Antonio Lavoisier
  - B) Humphry Davy
  - C) Joseph Proust
  - D) Benjamin Franklin
  - E) John Dalton
8. What is the main purpose of a vacuum pump in a gas discharge tube experiment?
- A) Conduct heat more efficiently
  - B) Remove all gas particles
  - C) Generate static electricity
  - D) Reduce gas pressure for better observations
  - E) Increase gas pressure
9. What is the name of Dalton's atomic model?
- A) Plum pudding model
  - B) Electron cloud model
  - C) Golf ball model
  - D) Planetary model
  - E) Nuclear model
10. Which of the following statements is FALSE about static electricity?
- A) It was studied by Benjamin Franklin.
  - B) It played a role in early atomic discoveries.
  - C) It is caused by the movement of charged particles.
  - D) It occurs only in liquids and gases.
  - E) It can be generated by rubbing materials together.

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### Write Short Answers

11. What did Democritus believe about the divisibility of matter?

12. What was the key finding of Lavoisier's study on chemical reactions?

13. What are the three main subatomic particles found in an atom?

14. How did the cathode ray experiment challenge Dalton's atomic theory?

15. What are cathode rays and how were they discovered?

Chemistry is the study of the composition  
of substances and the changes they  
undergo.

-John Dalton