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Class 10 Chemistry Chapter 1 MCQ Quiz Online | FBISE

Class 10 Chemistry · Chapter 1: History of Chemistry

Name: _____ Date: _____ Score: _____ / 25

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1. What does the principle of conservation of mass state?

A) Mass is created during a chemical reaction
B) Mass remains constant during a chemical reaction
C) Mass is destroyed during a chemical reaction
D) Products always weigh more than reactants

2. Who first showed the principle of conservation of mass in the 18th century?

A) Dmitri Mendeleev
B) Ernest Rutherford
C) Antoine Lavoisier
D) J.J. Thomson

3. If an experiment does not follow conservation of mass, chemists should:

A) Ignore the result
B) Check their procedures and calculations
C) Publish it immediately
D) Change the law

4. How did Mendeleev create the periodic table?

A) By arranging elements alphabetically
B) By guessing the order of elements
C) By using electron configurations
D) By observing patterns in the properties of elements

5. In a controlled experiment, scientists:

A) Change all variables at once
B) Change one variable at a time and keep others constant
C) Change no variables
D) Use no measurements

6. What does the peer review process ensure in scientific research?

A) Faster publication
B) Higher funding
C) Accuracy and validity of findings
D) Reduced experimentation

7. Being objective in science means results must come from:

A) Facts, not opinions or biases
B) Personal beliefs
C) Guesses
D) Popular opinion

8. Why is skepticism important in science?

A) It stops new discoveries
B) It makes scientists reject every idea
C) It speeds up publication
D) It ensures only verified information becomes part of science

9. A scientific paradigm is:

A) A single experiment
B) A set of ideas, methods and rules that guide scientists in their research
C) A type of laboratory equipment
D) A published journal

10. Which of the following was an 18th-century chemical paradigm?

A) Atomic theory
B) Quantum mechanics
C) Phlogiston theory
D) Periodic table

11. According to the phlogiston theory, materials that could burn:

A) Absorbed oxygen
B) Lost all their mass
C) Needed water to burn
D) Contained phlogiston that was released during burning

12. Who disproved the phlogiston theory by showing that combustion involves oxygen?

A) Antoine Lavoisier
B) Niels Bohr
C) Dmitri Mendeleev
D) Ernest Rutherford

13. Which paradigm replaced the phlogiston theory?

A) Atomic theory
B) Theory of combustion (oxygen theory)
C) Quantum mechanics
D) Periodic table

14. Who proposed the plum pudding model of the atom in 1904?

A) Rutherford
B) Bohr
C) Lavoisier
D) J.J. Thomson

15. In the plum pudding model, the "plums" represent:

A) Protons
B) Negatively charged electrons
C) Neutrons
D) The nucleus

16. Which experiment led Rutherford to propose his atomic model in 1911?

A) Cathode ray experiment
B) Oil drop experiment
C) Gold foil experiment
D) Double slit experiment

17. Which model of the atom includes a central nucleus with electrons orbiting around it?

A) Rutherford model
B) Plum pudding model
C) Dalton's solid sphere model
D) None of these

18. Bohr's model improved Rutherford's model by adding the idea of:

A) A positively charged soup
B) Energy levels
C) Phlogiston
D) Atomic mass order

19. In which year did Mendeleev create the periodic table?

A) 1769
B) 1904
C) 1869
D) 1911

20. The modern periodic table arranges elements based on:

A) Atomic masses only
B) Atomic numbers and electron configurations
C) Alphabetical order
D) Discovery date

21. A solution is measured as 0.50 M with a 95% confidence interval of 0.48–0.52 M. This means:

A) The true value is exactly 0.50 M
B) The experiment was repeated 95 times
C) 95% of scientists agree
D) They are 95% sure the true value lies in this range

22. A p-value of 0.01 for a new catalyst compared with an old one means:

A) There is only a 1% chance the result is random
B) The catalyst is 1% effective
C) The experiment failed
D) The catalyst is slower

23. A chemist's confidence in a reaction rises from 60% to 80% after new data. This is an example of:

A) Standard deviation
B) Confidence interval
C) Bayesian probability
D) Reproducibility

24. Getting the same result when an experiment is repeated under the same conditions is called:

A) Reproducibility
B) Repeatability
C) Uncertainty
D) Bias

25. Different chemists in different labs using different equipment get similar melting point results. This shows:

A) Repeatability
B) Uncertainty
C) Bias
D) Reproducibility

Answer key

1-B 2-C 3-B 4-D 5-B 6-C 7-A 8-D 9-B 10-C

11-D 12-A 13-B 14-D 15-B 16-C 17-A 18-B 19-C 20-B

21-D 22-A 23-C 24-B 25-D