Al Amal Learning Center

Class 9 Chemistry Chapter 1 MCQ Quiz Online | Level 1

Class 9 Chemistry · Chapter 1: Nature of Science in Chemistry

Name: _____ Date: _____ Score: _____ / 32

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1. Which of the following best defines chemistry?

A) The study of the motion of planets
B) The study of the materials of the universe and the changes they undergo
C) The study of living organisms only
D) The study of machines and tools

2. Chemistry deals with the composition, structure, properties, behavior and changes of:

A) Matter and energy
B) Light and sound only
C) Rocks only
D) Living cells only

3. Green chemistry is a model of chemical products and processes that:

A) Increase the use of hazardous substances
B) Produce only fuels
C) Reduce the use of hazardous substances
D) Study only plants

4. Organic chemistry is the branch of chemistry that deals with substances containing:

A) Nitrogen
B) Oxygen
C) Hydrogen only
D) Carbon

5. Which of the following carbon-containing substances is excluded from organic chemistry?

A) Proteins
B) Carbides
C) Carbohydrates
D) Fats

6. The branch of chemistry that deals with elements and their compounds except organic compounds is:

A) Inorganic chemistry
B) Biochemistry
C) Polymer chemistry
D) Astrochemistry

7. The branch of chemistry that deals with laws and theories to understand the structure and changes of matter is:

A) Analytical chemistry
B) Medicinal chemistry
C) Geochemistry
D) Physical chemistry

8. Methods and instruments for determining the composition and properties of matter are studied in:

A) Industrial chemistry
B) Nuclear chemistry
C) Analytical chemistry
D) Organic chemistry

9. The branch of chemistry that deals with physical and chemical changes in living organisms is:

A) Geochemistry
B) Biochemistry
C) Astrochemistry
D) Inorganic chemistry

10. The study of chemical and toxic substances that pollute the environment and harm human beings is called:

A) Environmental chemistry
B) Physical chemistry
C) Polymer chemistry
D) Nuclear chemistry

11. Large-scale production of chemical substances is the concern of:

A) Analytical chemistry
B) Biochemistry
C) Geochemistry
D) Industrial chemistry

12. The study of interactions between drugs and biological targets, and the development of new medicinal agents, is called:

A) Organic chemistry
B) Inorganic chemistry
C) Medicinal chemistry
D) Environmental chemistry

13. Which of the following is an example of a synthetic polymer mentioned in the chapter?

A) Granite
B) Nylon bearings
C) Table salt
D) Water

14. The chemical composition, distribution and transformation of elements in the Earth's crust, rocks, minerals, soils, water and atmosphere is studied in:

A) Astrochemistry
B) Biochemistry
C) Geochemistry
D) Analytical chemistry

15. The branch of chemistry that deals with changes occurring in atomic nuclei is:

A) Nuclear chemistry
B) Physical chemistry
C) Organic chemistry
D) Polymer chemistry

16. Chemical processes and reactions in stars, planets, comets and interstellar space are studied in:

A) Geochemistry
B) Environmental chemistry
C) Industrial chemistry
D) Astrochemistry

17. "What is the structure of an atom, and how does it influence chemical behavior?" is an essential question for:

A) Biochemistry
B) Physical chemistry
C) Geochemistry
D) Medicinal chemistry

18. "Why is carbon considered the backbone of organic compounds?" is an essential question for:

A) Organic chemistry
B) Inorganic chemistry
C) Nuclear chemistry
D) Astrochemistry

19. "How does the periodic table help to organise elements?" is an essential question for:

A) Organic chemistry
B) Biochemistry
C) Inorganic chemistry
D) Polymer chemistry

20. "How do biomolecules such as carbohydrates, proteins, nucleic acids and lipids contribute to living organisms?" is an essential question for:

A) Geochemistry
B) Analytical chemistry
C) Nuclear chemistry
D) Biochemistry

21. "What role do greenhouse gases play in climate change, and how can we mitigate their effects?" is an essential question for:

A) Polymer chemistry
B) Environmental chemistry
C) Organic chemistry
D) Astrochemistry

22. "What is the role of radioisotopes in medicine and industry?" is an essential question for:

A) Nuclear chemistry
B) Geochemistry
C) Inorganic chemistry
D) Biochemistry

23. Lithium-ion (Li-ion) batteries, used as rechargeable batteries, are an application of:

A) Organic chemistry
B) Astrochemistry
C) Inorganic chemistry
D) Biochemistry

24. Forensic chemistry is an application of:

A) Nuclear chemistry
B) Analytical chemistry
C) Geochemistry
D) Industrial chemistry

25. The batteries in our vehicles are built on the principle of:

A) Polymerization
B) Sedimentation
C) Radioactivity
D) Electrochemistry

26. Which of the following is NOT a method mentioned for protecting water in environmental chemistry?

A) Sedimentation
B) Filtration
C) Disinfection
D) Combustion

27. Science is best described as:

A) The systematic process of constructing and organizing knowledge about the universe
B) The design of structures and machines
C) The large-scale production of goods
D) The creation of tools for daily use

28. Technology is the process of:

A) Studying only the natural world
B) Designing manufacturing plants only
C) Applying scientific knowledge to practical applications
D) Memorizing scientific laws

29. Engineering is the use of ____ to design and construct systems, structures and tools.

A) Art and literature
B) Science and mathematics
C) Only chemicals
D) Only computers

30. Which substances react together to cause the rusting of iron?

A) Iron, nitrogen and hydrogen
B) Iron, carbon dioxide and helium
C) Iron, sodium and chlorine
D) Iron, water and oxygen

31. Photovoltaic cells are used to convert sunlight into:

A) Electricity
B) Sound
C) Water
D) Nuclear energy

32. In plastic bags, small building blocks called monomers combine to form long chains called polymers. Which polymer is given as the example?

A) Nylon
B) Teflon
C) Polyethylene
D) Polyester

Answer key

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

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

21-B 22-A 23-C 24-B 25-D 26-D 27-A 28-C 29-B 30-D

31-A 32-C