

ABC International School

Class X - Multi-Type MCQ Paper

6 Different MCQ Question Types

Name: _____

Class: _____ Section: _____

Roll no.: _____

Instructions:

- Fill OMR sheet with blue/black pen.
- Fill circles completely.
- No stray marks.
- Enter Name, Class, Section.

SET

A

Questions: **21**

Duration: **45min**

Programming & Technology

Mixed question types about programming and technology

1. Which programming language is primarily used for web frontend development?

- A. Python B. JavaScript
C. C++ D. Java

2. Read the statement below carefully and determine its accuracy.

Statement:

Python is an interpreted programming language that supports object-oriented programming.

Based on your knowledge of Python programming language, evaluate the statement.

- A. The statement is completely true
B. The statement is partially true
C. The statement is completely false
D. Cannot be determined

3. Review the following statements about Git version control system.

- i. Git is a distributed version control system
ii. Git was created by Linus Torvalds
iii. Git requires a central server to function
iv. Git can track changes in binary files

Select the option that identifies all the correct statements.

- A. i and ii only B. i, ii and iv only
C. i, ii and iii only
D. All statements are correct

4. Match each programming language with its primary use case.

- | | |
|----------------|----------------------------|
| i. Python | - Data science and AI |
| ii. JavaScript | - Web frontend development |
| iii. SQL | - Database queries |

How many of the following programming languages are correctly matched with their primary use?

- A. Only i and ii B. Only ii and iii
C. All three D. None

5. Consider the following statements about artificial intelligence and machine learning.

Statement-1:

Machine Learning is a subset of Artificial Intelligence.

Statement-2:

Deep Learning is a subset of Machine Learning that uses neural networks.

Evaluate the relationship between these statements.

- A. Both statements are true and Statement-2 explains Statement-1
B. Both statements are true but Statement-2 does not explain Statement-1
C. Statement-1 is true but Statement-2 is false
D. Both statements are false

6. Consider the standard software development lifecycle (SDLC) phases listed below.

A. Requirements Analysis
B. Design
C. Implementation
D. Testing
E. Deployment

What is the correct sequence for these software development lifecycle phases?

- A. A → B → C → D → E
B. A → C → B → D → E
C. B → A → C → D → E
D. A → B → D → C → E

7. Machine Learning is a subset of Artificial Intelligence that enables computers to learn and make decisions without being explicitly programmed. It uses algorithms to analyze data, identify patterns, and make predictions. There are three main types: supervised learning (using labeled data), unsupervised learning (finding patterns in unlabeled data), and reinforcement learning (learning through trial and error with rewards).

According to the paragraph, which type of machine learning uses labeled data?

- A. Supervised learning
B. Unsupervised learning
C. Reinforcement learning
D. All three types

Geography & World Knowledge

Mixed question types about geography and world knowledge

8. Consider the different continents and their geographical sizes.

Which is the largest continent by area?

- A. Africa
B. Asia
C. North America
D. Europe

9. Consider the geographic facts about major world rivers.

Statement:

The Amazon River is the longest river in the world and flows through Brazil, Peru, and Colombia.

Analyze the accuracy of the following statement about the Amazon River.

- A. The statement is completely true
B. The statement is partially true
C. The statement is completely false
D. Cannot be determined

10. Examine the following facts about the Sahara Desert.

- i. It is the largest hot desert in the world
ii. It covers parts of 11 countries
iii. It is larger than the United States
iv. It receives no rainfall throughout the year

Which of the following statements about the Sahara Desert are correct?

- A. i and ii only
B. i, ii and iii only
C. i and iii only
D. All statements are correct

11. Analyze the following statements about global climate patterns.

Assertion:

The equatorial regions receive more solar radiation than the polar regions.

Reasoning:

The sun's rays hit the equatorial regions more directly while hitting the polar regions at an oblique angle.

Determine the correctness of the assertion and reasoning.

- A. Both assertion and reasoning are correct, and reasoning explains the assertion
B. Both assertion and reasoning are correct, but reasoning does not explain the assertion
C. Assertion is correct but reasoning is incorrect
D. Both assertion and reasoning are incorrect

12. Test your knowledge of world capitals by matching countries with their capital cities.

- | | |
|----------------|------------|
| i. France | - Paris |
| ii. Japan | - Beijing |
| iii. Australia | - Canberra |
| iv. Brazil | - Brasília |

How many of the following countries are correctly matched with their capitals?

- A. i and iii only B. i, iii and iv only
C. ii and iv only D. All four
13. Consider the lengths of these major world rivers.
- A. Nile River
B. Amazon River
C. Yangtze River
D. Mississippi River

What is the correct sequence of these rivers from longest to shortest?

- A. A → B → C → D B. B → A → C → D
C. A → B → D → C D. B → A → D → C
14. Study the following information about climate change and its causes.

Climate change refers to long-term shifts in global temperatures and weather patterns. While climate variations are natural, scientific evidence shows that human activities, particularly the emission of greenhouse gases like carbon dioxide from burning fossil fuels, have been the dominant driver of climate change since the mid-20th century. The effects include rising sea levels, more frequent extreme weather events, and changes in precipitation patterns.

According to the paragraph, what has been the dominant driver of climate change since the mid-20th century?

- A. Natural climate variations
B. Solar radiation changes
C. Human activities D. Ocean currents

Science & Chemistry

Mixed question types about science and chemistry

15. Think about the basic chemical compounds you encounter daily.
What is the chemical formula for water?

- A. H₂O B. CO₂
C. NaCl D. CH₄

16. Consider the electronic configuration and chemical behavior of noble gases.

Statement:

Noble gases are chemically inert because they have complete outer electron shells.

Evaluate the following statement about noble gas reactivity.

- A. The statement is completely true
B. The statement is partially true
C. The statement is completely false
D. Cannot be determined

17. Review the following facts about the photosynthesis process in plants.

- i. It occurs in the chloroplasts of plant cells
ii. It converts carbon dioxide and water into glucose
iii. It requires sunlight as an energy source
iv. It produces oxygen as a byproduct

Which of the following statements about photosynthesis are correct?

- A. i and ii only B. i, ii and iii only
C. ii, iii and iv only
D. All statements are correct

18. Test your knowledge of chemical element symbols.

- | | |
|------------|------|
| i. Gold | - Au |
| ii. Silver | - Ag |
| iii. Iron | - Fe |
| iv. Copper | - Cu |
| v. Lead | - Pb |

How many of the following elements are correctly matched with their chemical symbols?

- A. All five B. Four only
C. Three only D. Two only

19. Recall the ordered stages of cell division during mitosis.

- A. Prophase
B. Metaphase
C. Anaphase
D. Telophase

What is the correct sequence of phases in mitosis?

- A. A → B → C → D B. A → C → B → D
C. B → A → C → D D. A → B → D → C

20. *Evaluate the following statements about chemical bonding and molecular structure.*

Assertion:

Covalent bonds are stronger than ionic bonds in most cases.

Reasoning:

Covalent bonds involve direct sharing of electrons between atoms, creating stronger attractions.

Inference:

Therefore, covalent compounds have higher melting points than ionic compounds.

Assess the logical relationship between assertion, reasoning, and inference.

- A. Assertion and reasoning are correct, but inference is incorrect
 - B. Assertion is correct, reasoning and inference are incorrect
 - C. All three statements are correct and logically connected
 - D. All three statements are incorrect
21. *Learn about the organization and patterns in the periodic table.*

The periodic table organizes chemical elements by their atomic number, which represents the number of protons in an atom's nucleus. Elements in the same vertical column (group) have similar chemical properties because they have the same number of valence electrons. Elements in the same horizontal row (period) have the same number of electron shells. The periodic table helps predict an element's properties based on its position.

According to the paragraph, why do elements in the same group have similar chemical properties?

- A. They have the same atomic number
- B. They have the same number of valence electrons
- C. They have the same number of electron shells
- D. They have the same atomic mass

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