ABC International School

Class X – Multi–Type MCQ Paper

6 Different MCQ Question Types (ANSWERS)

Name: _____

Class: _____ Section: _____

Roll no.: _____

SET A

Questions: **18**
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

Explanation:
JavaScript is the primary language for client-side web development, running in browsers to create interactive user interfaces.

2. *Evaluate the following statement:*

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

A. The statement is completely true *

B. The statement is partially true

C. The statement is completely false

D. Cannot be determined

Explanation:
Python is indeed an interpreted language and fully supports object-oriented programming paradigms.

3. *Which of the following statements about Git are correct?*

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

A. i and ii only **B. i, ii and iv only ***

C. i, ii and iii only

D. All statements are correct

Explanation:
Git is distributed (i), created by Linus Torvalds (ii), does NOT require a central server (iii is false), and can track binary files (iv).

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

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

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

Explanation:
All three languages are correctly matched with their primary use cases.

5. *What is the correct sequence for the software development lifecycle phases?*

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

A. A → B → C → D → E *
B. A → C → B → D → E
C. B → A → C → D → E
D. A → B → D → C → E

Explanation:
The standard SDLC follows: Requirements Analysis → Design → Implementation → Testing → Deployment.

6.

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

Explanation:
The paragraph explicitly states that supervised learning uses labeled data.

Geography & World Knowledge

Mixed question types about geography and world knowledge

7. *Which is the largest continent by area?*

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

Explanation:
Asia is the largest continent, covering about 30% of Earth's total land area and containing about 60% of the world's population.

8. *Evaluate the following statement:*

   Statement:

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

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

   Explanation:
   While the Amazon does flow through Brazil, Peru, and Colombia, the Nile River is generally considered the longest river in the world.

9. *Which of the following statements about the Sahara Desert are correct?*

   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

   A. i and ii only　　　**B. i, ii and iii only ***

   C. i and iii only
   D. All statements are correct

   Explanation:
   The Sahara is the largest hot desert (i), covers 11 countries (ii), is larger than the US (iii), but does receive some rainfall (iv is false).

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

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

    A. i and iii only　　**B. i, iii and iv only ***

    C. ii and iv only　　**D.** All four

    Explanation:
    France-Paris (correct), Japan-Beijing (incorrect, should be Tokyo), Australia-Canberra (correct), Brazil-Brasília (correct).

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

    A. Nile River
    B. Amazon River
    C. Yangtze River
    D. Mississippi River

    A. A → B → C → D *
    B. B → A → C → D
    C. A → B → D → C
    D. B → A → D → C

    Explanation:
    From longest to shortest: Nile (6,650 km) → Amazon (6,400 km) → Yangtze (6,300 km) → Mississippi (3,730 km).

12.

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

Explanation:
The paragraph explicitly states that human activities, particularly greenhouse gas emissions from burning fossil fuels, have been the dominant driver since the mid-20th century.

Science & Chemistry

Mixed question types about science and chemistry

13. *What is the chemical formula for water?*

A. **H2O ***   B. CO2

C. NaCl   D. CH4

Explanation:
Water is composed of two hydrogen atoms bonded to one oxygen atom, giving it the molecular formula H2O.

14. *Evaluate the following statement:*

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

A. **The statement is completely true ***

B. The statement is partially true

C. The statement is completely false

D. Cannot be determined

Explanation:
Noble gases are indeed chemically inert under normal conditions due to their complete outer electron shells, making them stable.

15. *Which of the following statements about photosynthesis are correct?*

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

A. i and ii only   B. i, ii and iii only

C. ii, iii and iv only

D. **All statements are correct ***

Explanation:
All statements about photosynthesis are correct: it occurs in chloroplasts (i), converts CO2 and water to glucose (ii), requires sunlight (iii), and produces oxygen (iv).

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

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

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

Explanation:
All elements are correctly matched: Gold-Au, Silver-Ag, Iron-Fe, Copper-Cu, Lead-Pb.

17. *What is the correct sequence of phases in mitosis?*

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

A. **A → B → C → D** *
B. A → C → B → D
C. B → A → C → D
D. A → B → D → C

Explanation:
Mitosis follows the sequence: Prophase → Metaphase → Anaphase → Telophase (PMAT).

18.

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

Explanation:
The paragraph explicitly states that elements in the same group have similar properties because they have the same number of valence electrons.

* * * * **END** * * * *