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MCQ Paper - generated_

Generated Question Paper

MCQ Examination

Name: _____

Class: _____ Section: _____

Roll no.: _____

Instructions:

- Read all questions carefully
- Mark answers on separate OMR sheet
- Use question paper for rough work
- Manage time to complete all sections

SET A

Questions: **20**
Duration: **30min**

Mathematics

This section contains 10 multiple-choice questions covering various topics in mathematics, including algebra, geometry, and arithmetic. Each question has four possible answers.

1. *What is the slope of the line that passes through the points (2, 5) and (6, 13)?*

A. 3 **B.** 8
C. 1/2 **D.** 2

2. A rhombus is a quadrilateral with all four sides of equal length. Its opposite sides are parallel, and its opposite angles are equal. The diagonals of a rhombus bisect each other at right angles.

Consider the properties of the shape described.

A. All four angles are equal.
B. All four sides are equal.
C. Diagonals bisect each other at 90 degrees.
D. Opposite angles are equal.

Which property is NOT true for this shape?

A. Property A **B.** Property C
C. Property B **D.** Property D

3. *Consider the following steps to calculate the area of a circle with a radius of 5 units:*

A. Square the radius (5 * 5 = 25).
B. Identify the formula for the area of a circle ($A = \pi r^2$).
C. Multiply the result by π (Area = 25π).

What is the correct order of these steps?

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

4. *Match the mathematical term with its correct definition.*

Term	-	Definition
1. Prime Number	-	a. A whole number that is not a fraction.
2. Median	-	b. A number greater than 1 with only two factors: 1 and itself.
3. Integer	-	c. The middle value in a sorted list of numbers.

Which option represents the correct matching?

A. 1-b, 2-a, 3-c **B.** 1-b, 2-c, 3-a
C. 1-c, 2-a, 3-b **D.** 1-a, 2-b, 3-c

5. *Evaluate the following statements regarding triangles:*

Statement I:

The sum of the angles in any triangle is always 180 degrees.

Statement II:

In an equilateral triangle, all three sides are of equal length and all three angles are 60 degrees.

Which of the statements is/are correct?

A. Only Statement II is correct
B. Only Statement I is correct
C. Both Statement I and Statement II are correct
D. Neither statement is correct

6. *A rectangle has a length of 15 cm and a width of 8 cm.*

What is its area?

A. 120 cm² **B.** 46 cm²
C. 23 cm² **D.** 60 cm²

7. *What is the value of the expression: (6 + 4) * 5 - 2² ?*

A. 26 **B.** 46
C. 96 **D.** 48

8. *What is the value of 'x' in the equation 2x + 10 = 24?*

A. 7 **B.** 12
C. 17 **D.** 5

9. *Read the paragraph about a numerical sequence:*

An arithmetic sequence starts with the number 3. Each subsequent term is found by adding 4 to the previous term. The first few terms are 3, 7, 11, 15, and so on.

What is the 8th term in this sequence?

A. 31 **B.** 27
C. 39 **D.** 35

10. *If a fair six-sided die is rolled once,*

what is the probability of rolling a number greater than 4?

A. 1/3 **B.** 1/2
C. 2/3 **D.** 1/6

Science

This section presents 10 multiple-choice questions on topics in biology, chemistry, and physics. Each question has five possible answers.

11. *Read the paragraph about Newton's Third Law of Motion:*

> Newton's Third Law of Motion states that for every action, there is an equal and opposite reaction. This means that in every interaction, there is a pair of forces acting on the two interacting objects. The size of the forces is equal, and the direction of the forces is opposite.

Which of the following is the best example of this law?

A. The recoil of a gun after firing a bullet.
B. An object staying at rest unless a force acts on it.
C. A ball rolling to a stop due to friction.
D. A planet orbiting the sun.
E. A heavy object requiring more force to accelerate than a light one.

12. *Read the information about the human circulatory system.*

> The human circulatory system is responsible for transporting oxygen and nutrients to cells and carrying away waste products like carbon dioxide. Arteries carry oxygenated blood away from the heart to the body, while veins carry deoxygenated blood back to the heart. The pulmonary artery is a notable exception, carrying deoxygenated blood to the lungs.

Now consider the following statements.

Assertion (A):
All arteries in the body carry oxygenated blood.

Reasoning (R):
Arteries are defined by carrying blood away from the heart, not by their oxygen content.

Based on the text, which conclusion is correct?

A. Both A and R are true, but R does not explain A.
B. A is true and R is false.
C. Both A and R are false.
D. A is false and R is true.
E. Both A and R are true, and R correctly explains A.

13. *Match the scientific unit with the quantity it measures.*

Unit	-	Quantity
1. Newton	-	a. Power
2. Watt	-	b. Pressure
3. Hertz	-	c. Force
4. Pascal	-	d. Frequency

Which is the correct set of matches?

A. 1-a, 2-c, 3-b, 4-d
B. 1-b, 2-a, 3-d, 4-c
C. 1-c, 2-d, 3-a, 4-b
D. 1-d, 2-b, 3-c, 4-a
E. 1-c, 2-a, 3-d, 4-b

14. *The process by which a liquid turns into a gas at the surface of the liquid is called what?*

A. Sublimation
B. Melting
C. Condensation
D. Deposition
E. Evaporation

15. *Which of the following elements is a noble gas?*

A. Oxygen (O)
B. Sodium (Na)
C. Neon (Ne)
D. Hydrogen (H)
E. Chlorine (Cl)

16. *What is the powerhouse of the cell, responsible for generating most of the cell's supply of adenosine triphosphate (ATP)?*

A. Golgi Apparatus
B. Mitochondrion
C. Endoplasmic Reticulum
D. Ribosome
E. Nucleus

17. *Evaluate the following statements about the states of matter:*

Statement A:
Particles are in fixed positions and vibrate.

Statement B:
Particles are far apart and move randomly and rapidly.

Statement C:
Particles are closely packed but can slide past one another.

Which statement correctly describes the particle arrangement in a liquid?

A. None of the above
B. Statement B (Gas)
C. Statement A (Solid)
D. Statement C (Liquid)
E. Both A and C

18. *Consider the following stages of photosynthesis:*

1. Carbon Dioxide (CO_2)
2. Water (H_2O)
3. Glucose ($C_6H_{12}O_6$)
4. Oxygen (O_2)
5. Sunlight

Which of these are the primary outputs of the process?

A. 1 and 5
B. 3 and 5
C. 1 and 2
D. 2 and 4
E. 3 and 4

19. *The pH scale measures how acidic or basic a substance is.*
A substance with a pH of 2 is considered to be...?

A. Neutral
B. Weakly acidic
C. Strongly acidic
D. Weakly basic
E. Strongly basic

20. *What is the chemical symbol for the element Gold?*

A. Ag
B. Ge
C. Au
D. Go
E. Gd

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