

# REFERENCE EXAM PAPER

(Total: 100 Points)

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## Instructions for the Instructor:

- There are 15 questions, summing up to 100 total points.
- Each question has a line `Points:   X` indicating its maximum points.
- Each question ends with `Reference Answer:   ....`
- Do **not** distribute this version to students; it contains official solutions.

**Question 1:** The Earth is the third planet from the Sun. True or False?

**Points:** 6

**Reference Answer:** True. Earth is indeed the third planet from the Sun.

**Question 2:** Which of the following elements is the most abundant gas in the Earth's atmosphere?

1. Oxygen
2. Hydrogen
3. Nitrogen
4. Carbon Dioxide

**Points:** 10

**Reference Answer:** Nitrogen (Choice C). About 78% of the Earth's atmosphere is nitrogen.

**Question 3:** Solve the equation:  $2x + 3 = 9$ . What is the value of  $x$ ?

**Points:** 6

**Reference Answer:**  $x = 3$ . (Subtract 3 from 9 to get 6, then divide 6 by 2 to get 3.)

**Question 4:** What is the capital city of France?

**Points:** 3

**Reference Answer:** Paris.

**Question 5:** Fill in the blank: The process by which green plants use sunlight to make food from carbon dioxide and water is called \_\_\_\_\_.

**Points:** 8

**Reference Answer:** Photosynthesis.

**Question 6:** Which literary device involves a direct comparison using "like" or "as"?

**Points:** 4

**Reference Answer:** Simile.

**Question 7:** Write a short paragraph (2–3 sentences) explaining the importance of recycling.

**Points:** 15

**Reference Answer:** Recycling conserves natural resources by reusing materials. It reduces pollution and saves energy. Overall, it helps protect the environment for future generations.

**Question 8:** Determine if the following statement is *Fact* or *Opinion*: “Strawberries taste better than oranges.”

**Points:** 3

**Reference Answer:** Opinion, because taste preferences are subjective.

**Question 9:** Which organ in the human body is primarily responsible for filtering blood and producing urine?

**Points:** 6

**Reference Answer:** The kidneys.

**Question 10:** List at least two advantages of using electric cars over gasoline-powered cars.

**Points:** 8

**Reference Answer:** Electric cars produce zero tailpipe emissions, leading to less air pollution. They also have lower operational costs in terms of fuel and maintenance.

**Question 11:** Which of the following historical figures is known for the theory of relativity?

1. Isaac Newton
2. Albert Einstein
3. Galileo Galilei
4. Stephen Hawking

**Points:** 5

**Reference Answer:** Albert Einstein (Choice B).

**Question 12:** True or False? Water (H<sub>2</sub>O) is composed of two hydrogen atoms and one oxygen atom.

**Points:** 3

**Reference Answer:** True.

**Question 13:** In one or two sentences, describe the function of the CPU (Central Processing Unit) in a computer.

**Points:** 10

**Reference Answer:** The CPU is the brain of the computer that executes instructions and processes data. It performs arithmetic, logic, control, and I/O operations specified by the program.

**Question 14:** Which color do you get when you mix yellow and blue paint?

**Points:** 3

**Reference Answer:** Green.

**Question 15:** Provide a brief definition of biodiversity.

**Points:** 10

**Reference Answer:** Biodiversity is the variety of life in a particular habitat or ecosystem, including the number of different species of plants and animals.

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**END OF REFERENCE EXAM**

(Total = 100 Points)