

Markhor Junior Contest ®

Pioneer Level (Class VII & VIII) Science 2023

There are 25 questions, and each question carries two marks.

1. **What is the scientific term for the study of the structure, behavior, and evolution of the universe?**
 - a) **Cosmology**
 - b) Zoology
 - c) Geology
 - d) Meteorology
2. **Which type of rock is formed from the cooling and solidification of magma?**
 - a) **Igneous**
 - b) Sedimentary
 - c) Metamorphic
 - d) Foliated
3. **What is the process called when plants make their own food?**
 - a) Respiration
 - b) **Photosynthesis**
 - c) Decomposition
 - d) Fermentation
4. **Which part of the human body regulates body temperature?**
 - a) Heart
 - b) Brain
 - c) **Skin**
 - d) Liver
5. **What is the largest planet in our solar system?**
 - a) Earth
 - b) Saturn
 - c) **Jupiter**
 - d) Uranus
6. **Which type of energy comes from the sun's rays?**
 - a) **Solar**
 - b) Wind
 - c) Hydro
 - d) Geothermal

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7. What is the scientific term for the study of the weather?
 - a) **Meteorology**
 - b) Geology
 - c) Oceanography
 - d) Astronomy

8. Which animal has a four-chambered heart?
 - a) Fish
 - b) Amphibian
 - c) Reptile
 - d) **Mammal**

9. What is the process called when water moves through a plant, from the roots to the leaves?
 - a) Respiration
 - b) Photosynthesis
 - c) **Transpiration**
 - d) Osmosis

10. Which type of cloud is associated with thunderstorms?
 - a) Cumulus
 - b) Stratus
 - c) Cirrus
 - d) **Nimbus**

11. What is the scientific term for the study of the Earth's oceans?
 - a) Oceanography
 - b) Meteorology
 - c) Geology
 - d) Astronomy

12. Which type of energy is generated from the movement of water?
 - a) Solar
 - b) Wind
 - c) **Hydro**
 - d) Geothermal

13. What is the process called when the Earth's plates move and change?
 - a) Continental drift
 - b) **Plate tectonics**
 - c) Weathering and erosion
 - d) Glaciation

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14. What is the scientific term for the study of the Earth's physical structure?

- a) **Geology**
- b) Meteorology
- c) Oceanography
- d) Astronomy

15. Which type of rock is formed from compressed sediments?

- a) Igneous
- b) **Sedimentary**
- c) Metamorphic
- d) Foliated

16. What is the scientific term for the process by which the universe became transparent to light?

- a) Cosmic inflation
- b) Dark matter formation
- c) **Recombination era**
- d) Big Bang theory

17. Which type of energy is generated from the Earth's heat?

- a) Solar
- b) Wind
- c) Hydro
- d) **Geothermal**

18. What is the scientific term for the study of the Earth's magnetic field?

- a) **Geomagnetism**
- b) Paleomagnetism
- c) Magnetism
- d) Electromagnetism

19. Which type of rock is formed from the alteration of existing rocks under high pressure and temperature?

- a) Igneous
- b) Sedimentary
- c) **Metamorphic**
- d) Foliated

20. What is the process called when the Earth's axis tilts?

- a) Rotation
- b) Revolution
- c) Eclipse
- d) **Axial precession**

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21. Which type of energy transformation occurs when a car engine converts chemical energy into mechanical energy?
- a) Mechanical to electrical
 - b) Electrical to mechanical
 - c) **Chemical to mechanical**
 - d) Thermal to electrical
22. What is the term for the process by which cells become specialized to perform specific functions, leading to the formation of tissues and organs?
- a) Mitosis
 - b) Meiosis
 - c) **Differentiation**
 - d) Osmosis
23. A 50N force is applied to an object, causing it to move 20 meters in 4 seconds. What is the power exerted on the object?
- a) **250W**
 - b) 500W
 - c) 625W
 - d) 1000W
24. What is the chemical process by which a solid changes directly to a gas, without going through the liquid phase?
- a) Melting
 - b) Boiling
 - c) **Sublimation**
 - d) Condensation
25. What is the term for the process by which cells repair damaged DNA by replacing incorrect nucleotides with correct ones, maintaining genetic stability?
- a) DNA replication
 - b) Transcription
 - c) Translation
 - d) **Base excision repair**