

Markhor Junior Contest ®

Pioneer Level (Class VII & VIII) Science 2021

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

1. **In STEM, science mainly contributes by:**
 - a) Making artistic designs
 - b) **Providing knowledge of natural laws and principles**
 - c) Building machines
 - d) Creating budgets
2. **Which scientist first used the term “cell” after observing cork under a microscope?**
 - a) Anton van Leeuwenhoek
 - b) Louis Pasteur
 - c) **Robert Hooke**
 - d) Edward Jenner
3. **What is the main source of energy that drives photosynthesis?**
 - a) Water
 - b) Glucose
 - c) **Sunlight**
 - d) Oxygen
4. **In a food web, the main role of decomposers is to:**
 - a) Store energy in tissues
 - b) **Break down dead matter and recycle nutrients**
 - c) Produce oxygen
 - d) Hunt herbivores
5. **DNA is shaped like a:**
 - a) Single helix
 - b) **Double helix**
 - c) Spiral ladder with one side missing
 - d) Flat sheet
6. **The first cloned mammal, Dolly the sheep, was created using which technique?**
 - a) Selective breeding
 - b) Gene editing
 - c) **Somatic cell nuclear transfer**
 - d) Mutation
7. **Which of the following is a non-infectious disease?**
 - a) Influenza
 - b) **Malaria**

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- c) Hypertension (high blood pressure)
 - d) Chickenpox
8. Which of the following is a preventive measure for infectious diseases?
- a) Taking antibiotics for every illness
 - b) Eating junk food
 - c) **Washing hands with soap**
 - d) Sleeping less
9. Which of the following is the correct order of a food chain?
- a) Carnivore → Producer → Herbivore
 - b) **Producer → Herbivore → Carnivore**
 - c) Herbivore → Carnivore → Producer
 - d) Producer → Carnivore → Herbivore
10. Which pollutant is the biggest contributor to global warming?
- a) Nitrogen gas
 - b) **Carbon dioxide**
 - c) Oxygen
 - d) Helium
11. Which gas is the most important contributor to the greenhouse effect?
- a) Oxygen
 - b) Nitrogen
 - c) **Carbon dioxide**
 - d) Helium
12. Which of the following is a non-renewable resource?
- a) Sunlight
 - b) Wind
 - c) **Coal**
 - d) Wood
13. Which of these items is best suited for recycling?
- a) Leftover food
 - b) Used tissue paper
 - c) **Aluminum cans**
 - d) Soap water
14. Which subatomic particle has a positive charge?
- a) Neutron
 - b) Electron
 - c) **Proton**
 - d) Photon

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15. The vertical columns in the periodic table are called:

- a) Periods
- b) Groups**
- c) Shells
- d) Orbitals

16. Which type of bond is formed by the sharing of electrons?

- a) Ionic bond
- b) Covalent bond**
- c) Metallic bond
- d) Hydrogen bond

17. Burning of wood is an example of:

- a) Neutralization
- b) Combustion**
- c) Displacement
- d) Decomposition

18. Which of the following is a base?

- a) Lemon juice
- b) Vinegar
- c) Soap**
- d) Orange juice



19. Which of the following is a compound?

- a) Saltwater
- b) Glucose ($C_6H_{12}O_6$)**
- c) Brass
- d) Soil

20. According to Newton's First Law, an object at rest stays at rest unless:

- a) It loses its mass
- b) An external force acts on it**
- c) Time passes
- d) It changes shape

21. The SI unit of work is:

- a) Watt
- b) Newton
- c) Joule**
- d) Pascal

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22. In a longitudinal wave, particles of the medium move:

- a) Perpendicular to the wave
- b) Parallel to the direction of the wave**
- c) Randomly
- d) In circles

23. The bending of light when it passes from one medium to another is called:

- a) Reflection
- b) Diffusion
- c) Refraction**
- d) Dispersion

24. Which of the following indicates a chemical reaction has occurred?

- a) Water boils
- b) Sugar dissolves in water**
- c) Gas bubbles form, color changes, or temperature changes
- d) Ice melts

25. A farmer notices that crops in one field are wilting even though they are getting enough water and sunlight. Soil testing shows low nitrogen levels. Which of the following actions would best solve the problem?

- a) Spray pesticides on the crops
- b) Add nitrogen-rich fertilizer to the soil**
- c) Increase sunlight by removing nearby trees
- d) Water the crops twice as much