

Cosmic Physical Geography

Physical Geography · Answer Key · 25 Questions

1. Which planet in our solar system has the most extensive and visible ring system?

- A) Jupiter
- B) Saturn**
- C) Uranus
- D) Neptune

2. What is the name of the largest moon of Saturn, which is the only moon known to have a dense atmosphere?

- A) Europa
- B) Ganymede
- C) Titan**
- D) Io

3. The Great Red Spot is a persistent high-pressure storm located on which planet?

- A) Mars
- B) Jupiter**
- C) Saturn
- D) Venus

4. Which galaxy is the nearest major spiral galaxy to the Milky Way?

- A) Triangulum
- B) Andromeda**
- C) Whirlpool
- D) Sombrero

5. What is the approximate age of the universe according to the standard cosmological model?

- A) 4.5 billion years
- B) 13.8 billion years**
- C) 20.5 billion years
- D) 50 billion years

6. Which planet is known as the 'Red Planet' due to the iron oxide on its surface?

- A) Mercury
- B) Venus
- C) Mars**
- D) Jupiter

7. What type of star is our Sun classified as?

- A) Red Giant
- B) White Dwarf
- C) Yellow Dwarf**
- D) Blue Supergiant

8. Which celestial body was reclassified as a dwarf planet in 2006?

- A) Ceres
- B) Pluto**
- C) Eris
- D) Makemake

9. What is the hottest planet in our solar system?

- A) Mercury
- B) Venus**
- C) Mars
- D) Jupiter

10. The Oort Cloud is a theoretical spherical cloud of what objects?

- A) Asteroids
- B) Icy planetesimals**
- C) Nebulae
- D) Black holes

11. Which layer of the Sun is visible during a total solar eclipse?

- A) Photosphere
- B) Chromosphere
- C) Corona**
- D) Core

12. What is the main chemical component of the atmosphere of Venus?

- A) Oxygen
- B) Nitrogen
- C) Carbon Dioxide**
- D) Methane

13. The asteroid belt is primarily located between the orbits of which two planets?

- A) Earth and Mars
- B) Mars and Jupiter**
- C) Jupiter and Saturn
- D) Venus and Earth

14. Which moon of Jupiter is thought to have a subsurface liquid water ocean beneath its icy crust?

- A) Europa**
- B) Callisto
- C) Amalthea
- D) Himalia

15. What force is primarily responsible for the formation of stars and galaxies?

- A) Electromagnetism
- B) Gravity**
- C) Nuclear fission
- D) Dark energy

16. Which planet has the longest 'year' (orbital period around the Sun)?

- A) Saturn
- B) Uranus
- C) Neptune**
- D) Jupiter

17. A 'light-year' is a unit used to measure which of the following?

- A) Time
- B) Distance**
- C) Luminosity
- D) Speed

18. What is the term for a massive explosion that occurs at the end of a star's life cycle?

- A) Supernova**
- B) Nebula
- C) Pulsar
- D) Quasar

19. Which planet rotates on its side, with its axis of rotation tilted nearly 98 degrees?

- A) Saturn
- B) Neptune
- C) Uranus**
- D) Venus

20. What is the name of the galaxy that contains our Solar System?

- A) Andromeda
- B) Milky Way**
- C) Messier 87
- D) Triangulum

21. Which gas giant is known for having the strongest winds in the solar system?

- A) Jupiter
- B) Saturn
- C) Uranus
- D) Neptune**

22. What phenomenon occurs when the Moon passes between the Sun and the Earth?

- A) Lunar eclipse
- B) Solar eclipse**
- C) Equinox
- D) Solstice

23. The Kuiper Belt is located beyond the orbit of which planet?

- A) Jupiter
- B) Saturn
- C) Uranus
- D) Neptune**

24. What is the primary element that makes up the majority of a star's mass?

- A) Helium
- B) Hydrogen**
- C) Oxygen
- D) Carbon

25. What is the boundary around a black hole from which nothing, not even light, can escape?

- A) Singularity
- B) Event horizon**
- C) Accretion disk
- D) Schwarzschild radius