

Cosmic Wonders Quiz

Cosmology · Answer Key · 10 Questions

1. What is the name of the theory that describes the universe expanding from a hot, dense singularity about 13.8 billion years ago?

- A) Steady State Theory
- B) Big Bang Theory**
- C) Nebular Hypothesis
- D) Cyclic Model

2. Which invisible substance is thought to make up about 27% of the universe and provides the extra gravity needed to hold galaxies together?

- A) Dark Energy
- B) Normal Matter
- C) Dark Matter**
- D) Antimatter

3. What phenomenon is used to explain why light from distant galaxies shifts toward the red end of the light spectrum as they move away from us?

- A) Doppler Effect**
- B) Cosmic Inflation
- C) Stellar Parallax
- D) Planetary Transit

4. What is the term for the faint, uniform glow of microwave radiation that fills the entire universe, acting as an 'afterglow' of the Big Bang?

- A) Solar Wind
- B) Cosmic Microwave Background**
- C) Interstellar Dust
- D) Quasar Radiation

5. Which force is responsible for the 'accelerated expansion' of the universe, pushing galaxies away from each other at increasing speeds?

- A) Dark Energy**
- B) Nuclear Weak Force
- C) Gravity
- D) Electromagnetism

6. What are the massive, extremely bright objects at the centers of distant galaxies, powered by supermassive black holes consuming matter?

- A) Neutron Stars
- B) Pulsars
- C) Quasars**
- D) White Dwarfs

7. Approximately what percentage of the known universe consists of 'normal' atomic matter that makes up stars, planets, and humans?

- A) 70%
- B) 50%
- C) 25%
- D) Less than 5%**

8. What is the 'Hubble Constant' used to measure in modern cosmology?

- A) The age of the Earth
- B) The expansion rate of the universe**
- C) The temperature of the Sun
- D) The distance to the Moon

9. What do astronomers call a massive cluster of galaxies that are gravitationally bound together?

- A) Supercluster**
- B) Solar System
- C) Constellation
- D) Nebula

10. What is the primary element created in the earliest moments of the universe, making up about 25% of the primordial matter?

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