

Milestones in Astrophysics

Astrophysics · Answer Key · 8 Questions

1. In 1919, which solar eclipse observation provided the first experimental evidence for General Relativity by confirming the bending of starlight?

- A) The total solar eclipse of May 29**
- B) The total solar eclipse of June 8
- C) The total solar eclipse of September 21
- D) The total solar eclipse of April 17

2. Who published the 'Hertzprung-Russell diagram' in 1911, which plots the luminosity of stars against their stellar classification or effective temperatures?

- A) Ejnar Hertzprung and Henry Norris Russell**
- B) Edwin Hubble and Georges Lemaître
- C) Subrahmanyan Chandrasekhar and Arthur Eddington
- D) Cecilia Payne and Annie Jump Cannon

3. In 1964, Arno Penzias and Robert Wilson discovered the Cosmic Microwave Background radiation, which served as evidence for which theory?

- A) Steady State Theory
- B) Big Bang Theory**
- C) String Theory
- D) Multiverse Theory

4. Which astrophysicist calculated the maximum mass of a stable white dwarf star, now known as the 'Chandrasekhar limit', in 1930?

- A) Subrahmanyan Chandrasekhar**
- B) Stephen Hawking
- C) Carl Sagan
- D) Jocelyn Bell Burnell

5. In 1967, Jocelyn Bell Burnell discovered the first pulsar, which is a highly magnetized, rotating version of which type of celestial object?

- A) Red Giant
- B) White Dwarf
- C) Neutron Star**
- D) Black Hole

6. Edwin Hubble demonstrated in 1929 that the universe is expanding by observing that galaxies are moving away from Earth at speeds proportional to their distance, a law now known as:

- A) Kepler's Law
- B) Newton's Law
- C) Hubble's Law**
- D) Stefan-Boltzmann Law

7. What is the name of the first satellite launched into Earth's orbit by the Soviet Union on October 4, 1957, marking the beginning of the Space Age?

- A) Vostok 1
- B) Sputnik 1**
- C) Explorer 1
- D) Luna 2

8. In 1925, Cecilia Payne-Gaposchkin made the groundbreaking discovery that stars are primarily composed of which two elements?

- A) Carbon and Oxygen
- B) Iron and Nickel
- C) Hydrogen and Helium**
- D) Gold and Silver