

Astrophysical History and Milestones

Astrophysics · Practice Test · 8 Questions

1. Which astrophysicist first proposed the existence of the Chandrasekhar limit, establishing the maximum mass of a stable white dwarf star?

- A) Subrahmanyan Chandrasekhar
- B) Arthur Eddington
- C) Robert Oppenheimer
- D) George Gamow

2. In 1967, Jocelyn Bell Burnell discovered the first pulsar; what was the original whimsical designation given to the signal by her team?

- A) LGM-1
- B) X-Ray-B
- C) Nova-X
- D) Pulsar-Alpha

3. The Eddington experiment of 1919, which provided early evidence for General Relativity, measured the deflection of starlight during which specific event?

- A) A total solar eclipse
- B) A lunar occultation
- C) A planetary transit
- D) A supernova explosion

4. Who is credited with the 1929 observational confirmation that galaxies are receding from the Milky Way, establishing the expansion of the universe?

- A) Edwin Hubble
- B) Vesto Slipher
- C) Willem de Sitter
- D) George Lemaitre

5. What was the primary objective of the COBE satellite launched by NASA in 1989?

- A) To map the Cosmic Microwave Background radiation
- B) To detect gravitational waves
- C) To photograph the surface of Pluto
- D) To measure solar wind velocity

6. In 1933, Fritz Zwicky inferred the existence of what phenomenon while studying the Coma Cluster of galaxies?

- A) Dark matter
- B) Black holes
- C) Dark energy
- D) Neutron stars

7. What significant astrophysical event was recorded by Chinese astronomers in 1054 AD, later identified as the origin of the Crab Nebula?

- A) SN 1054 supernova
- B) The Great Comet
- C) A solar flare
- D) A planetary conjunction

8. Cecilia Payne-Gaposchkin's 1925 doctoral thesis fundamentally changed astrophysics by proving that stars are composed primarily of which elements?

- A) Hydrogen and Helium
- B) Oxygen and Carbon
- C) Iron and Nickel
- D) Silicon and Sulfur