

History of Physics Essentials

Advanced Physics · Answer Key · 20 Questions

1. Who is credited with formulating the theory of general relativity in 1915?

- A) Isaac Newton
- B) Albert Einstein**
- C) Niels Bohr
- D) Max Planck

2. In 1900, which physicist introduced the concept of energy quanta to explain blackbody radiation?

- A) Werner Heisenberg
- B) Erwin Schrödinger
- C) Max Planck**
- D) Richard Feynman

3. Which scientist discovered the electron in 1897 while experimenting with cathode rays?

- A) J.J. Thomson**
- B) Ernest Rutherford
- C) James Chadwick
- D) Robert Millikan

4. The Manhattan Project, which led to the first atomic bomb, was primarily based in which country?

- A) Germany
- B) Japan
- C) United Kingdom
- D) United States**

5. Which female physicist was the first person to win Nobel Prizes in two different scientific fields?

- A) Lise Meitner
- B) Marie Curie**
- C) Rosalind Franklin
- D) Chien-Shiung Wu

6. What particle did James Chadwick confirm the existence of in 1932?

- A) Proton
- B) Electron
- C) Neutron**
- D) Positron

7. The 'Principia Mathematica', which laid the laws of motion, was published by whom in 1687?

- A) Johannes Kepler
- B) Galileo Galilei
- C) Isaac Newton**
- D) René Descartes

8. In 1927, which physicist proposed the Uncertainty Principle?

- A) Werner Heisenberg**
- B) Wolfgang Pauli
- C) Louis de Broglie
- D) Enrico Fermi

9. Who proposed the model of the atom where electrons orbit the nucleus in specific energy levels in 1913?

- A) Ernest Rutherford
- B) Niels Bohr**
- C) John Dalton
- D) J.J. Thomson

10. The first controlled nuclear chain reaction took place in 1942 at which university?

- A) University of Chicago**
- B) Harvard University
- C) MIT
- D) Stanford University

11. Which scientist is famous for the 'oil drop experiment' which measured the charge of an electron?

- A) Robert Millikan**
- B) Lord Kelvin
- C) James Clerk Maxwell
- D) Michael Faraday

12. What is the name of the famous 1905 paper series by Einstein that explained the photoelectric effect?

- A) Annus Mirabilis papers**
- B) The Principia
- C) Principia Mathematica
- D) The Theory of Everything

13. Which physicist formulated the equations that unified electricity and magnetism in the 1860s?

A) James Clerk Maxwell

- B) André-Marie Ampère
- C) Charles-Augustin de Coulomb
- D) Alessandro Volta

14. In 1924, who proposed that matter, like light, has wave-like properties?

A) Louis de Broglie

- B) Paul Dirac
- C) Enrico Fermi
- D) John von Neumann

15. Which element was first discovered through spectral analysis in the sun before being found on Earth?

A) Helium

- B) Hydrogen
- C) Oxygen
- D) Neon

16. Who received the Nobel Prize in Physics in 1921 specifically for his explanation of the photoelectric effect?

A) Albert Einstein

- B) Max Born
- C) Niels Bohr
- D) Arthur Compton

17. The Large Hadron Collider, which discovered the Higgs boson, is located at which laboratory?

A) CERN

- B) FERMILAB
- C) SLAC
- D) DESY

18. Which physicist's name is attached to the famous 'cat' thought experiment regarding quantum superposition?

A) Erwin Schrödinger

- B) Max Born
- C) Werner Heisenberg
- D) Richard Feynman

19. Who successfully measured the speed of light using a rotating mirror experiment in 1862?

A) Léon Foucault

B) Albert Michelson

C) Christiaan Huygens

D) Ole Rømer

20. Which 19th-century physicist is noted for creating the laws of thermodynamics?

A) Lord Kelvin

B) James Prescott Joule

C) Ludwig Boltzmann

D) Rudolf Clausius