

History of Organic Chemistry

Organic Chemistry · Practice Test · 12 Questions

1. Which chemist is credited with synthesizing urea in 1828, effectively challenging the theory of vitalism?

- A) Friedrich Wöhler
- B) Antoine Lavoisier
- C) Dmitri Mendeleev
- D) John Dalton

2. Who proposed the theory of tetravalency of carbon, suggesting that carbon atoms can form four chemical bonds?

- A) August Kekulé
- B) Linus Pauling
- C) Gilbert N. Lewis
- D) Robert Boyle

3. In 1856, William Henry Perkin accidentally synthesized the first synthetic organic dye while attempting to create which substance?

- A) Quinine
- B) Penicillin
- C) Aspirin
- D) Caffeine

4. Which scientist discovered the hexagonal ring structure of benzene in 1865?

- A) August Kekulé
- B) Louis Pasteur
- C) Emil Fischer
- D) Jacobus Henricus van 't Hoff

5. The 1874 theory of stereochemistry, proposing the tetrahedral carbon atom, was independently developed by Jacobus Henricus van 't Hoff and whom?

- A) Joseph Achille Le Bel
- B) Marie Curie
- C) Ernest Rutherford
- D) Alfred Nobel

6. Which organic compound was the first to be synthesized from inorganic materials in a controlled laboratory experiment?

- A) Urea
- B) Methane
- C) Acetic acid
- D) Glucose

7. Who received the Nobel Prize in Chemistry in 1902 for his work on sugar and purine syntheses?

- A) Emil Fischer
- B) Adolf von Baeyer
- C) Victor Grignard
- D) Paul Sabatier

8. The Grignard reaction, which remains a staple in organic synthesis, was named after Victor Grignard, who discovered it in what year?

- A) 1900
- B) 1885
- C) 1915
- D) 1892

9. Who is known for the discovery of the 'lock and key' model of enzyme-substrate interaction in 1894?

- A) Emil Fischer
- B) Eduard Buchner
- C) Wilhelm Ostwald
- D) Max Planck

10. The 'Baeyer-Villiger oxidation' involves the conversion of a ketone to an ester and was discovered by Adolf von Baeyer and whom?

- A) Victor Villiger
- B) Otto Diels
- C) Kurt Alder
- D) Otto Wallach

11. Which chemist pioneered the study of the structure of proteins and received the Nobel Prize in 1958 for his work on insulin?

- A) Frederick Sanger
- B) Linus Pauling
- C) Dorothy Hodgkin
- D) Robert Woodward

12. In 1944, who developed the Woodward-Hoffmann rules to explain the conservation of orbital symmetry in chemical reactions?

- A) Robert Burns Woodward
- B) Roald Hoffmann
- C) Arthur C. Cope
- D) Louis Fieser