

# Hard Botany Trivia

Botany · Practice Test · 25 Questions

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**1. In what year did Carl Linnaeus publish the first edition of 'Species Plantarum', establishing the binomial nomenclature system for plants?**

- A) 1735
- B) 1753
- C) 1762
- D) 1778

**2. Approximately how many species of flowering plants (angiosperms) have been described and scientifically named to date?**

- A) 150,000
- B) 350,000
- C) 600,000
- D) 1,000,000

**3. Gregor Mendel published his landmark paper 'Versuche über Pflanzen-Hybriden' (Experiments on Plant Hybridization) in which year?**

- A) 1859
- B) 1865
- C) 1882
- D) 1899

**4. The oldest known fossil of a vascular plant, Cooksonia, dates back to approximately how many million years ago?**

- A) 250
- B) 325
- C) 425
- D) 510

**5. How many chromosomes are typically present in the somatic cells of the common model organism *Arabidopsis thaliana*?**

- A) 8
- B) 10
- C) 12
- D) 14

**6. In 1665, who coined the term 'cell' while observing cork tissue under a microscope, as documented in 'Micrographia'?**

- A) Antonie van Leeuwenhoek
- B) Robert Hooke
- C) Marcello Malpighi
- D) Nehemiah Grew

**7. What is the approximate number of recognized extant species in the family Orchidaceae, one of the largest families of flowering plants?**

- A) 5,000
- B) 12,000
- C) 28,000
- D) 50,000

**8. The International Code of Nomenclature for algae, fungi, and plants (ICN) was established to regulate plant naming; the current Melbourne Code resulted from the IBC held in which year?**

- A) 2005
- B) 2011
- C) 2017
- D) 2023

**9. Which botanist is credited with the discovery of the 'double fertilization' process in angiosperms in 1898?**

- A) Sergei Nawaschin
- B) Eduard Strasburger
- C) Wilhelm Pfeffer
- D) Julius von Sachs

**10. Approximately what percentage of all known terrestrial plant species are currently classified as bryophytes?**

- A) 2%
- B) 10%
- C) 25%
- D) 40%

**11. The genus 'Rafflesia', which contains the world's largest individual flower, was first formally described by scientists in which year?**

- A) 1792
- B) 1821
- C) 1855
- D) 1888

- 12. How many petals are typically found in the flowers of the family Brassicaceae?**
- A) 3
  - B) 4
  - C) 5
  - D) 6
- 13. In 1804, Nicholas-Théodore de Saussure published 'Recherches Chimiques sur la Végétation', which quantified the uptake of which gas during photosynthesis?**
- A) Oxygen
  - B) Nitrogen
  - C) Carbon dioxide
  - D) Hydrogen
- 14. The first successful synthesis of the plant hormone auxin (indole-3-acetic acid) occurred in which decade?**
- A) 1910s
  - B) 1930s
  - C) 1950s
  - D) 1970s
- 15. As of the latest APG IV classification, how many botanical orders are recognized within the angiosperms?**
- A) 42
  - B) 64
  - C) 88
  - D) 102
- 16. The 'Rubisco' enzyme, essential for carbon fixation, is estimated to account for what fraction of the total soluble protein in leaves?**
- A) 1/10
  - B) 1/2
  - C) 1/4
  - D) 1/20
- 17. In what year did the British Royal Botanic Gardens, Kew, officially open to the public?**
- A) 1759
  - B) 1820
  - C) 1841
  - D) 1866

**18. How many species of the genus 'Ginkgo' survive today in the wild?**

- A) 1
- B) 3
- C) 7
- D) 12

**19. The 'C4' photosynthetic pathway, which minimizes photorespiration, was elucidated in detail by Hatch and Slack in what year?**

- A) 1955
- B) 1966
- C) 1978
- D) 1982

**20. How many stamens are traditionally found in the flowers of the genus 'Lilium'?**

- A) 3
- B) 6
- C) 9
- D) 12

**21. The publication 'De Materia Medica', a foundational text for medicinal botany, was written by Dioscorides in approximately which century?**

- A) 1st Century AD
- B) 3rd Century BC
- C) 5th Century AD
- D) 8th Century AD

**22. What is the approximate number of known living species of gymnosperms?**

- A) 200
- B) 600
- C) 1,100
- D) 2,500

**23. The 'Golden Age' of plant exploration during which Joseph Banks traveled with James Cook occurred in the:**

- A) 1740s
- B) 1760s
- C) 1790s
- D) 1810s

**24. How many carbon atoms are present in a single molecule of chlorophyll a?**

- A) 45
- B) 55
- C) 65
- D) 75

**25. In 1953, the structure of DNA was confirmed, but in which year did plant physiologist Melvin Calvin describe the 'Calvin Cycle' for the first time?**

- A) 1948
- B) 1950
- C) 1954
- D) 1960