

Advanced Botanical and Natural World Trivia

Plants & Nature · Answer Key · 18 Questions

1. Which plant hormone is primarily responsible for the ripening of fruit and the abscission of leaves?

- A) Auxin
- B) Gibberellin
- C) Ethylene**
- D) Cytokinin

2. What is the primary substance that makes up the cell walls of fungi, distinguishing them from plant cell walls?

- A) Cellulose
- B) Chitin**
- C) Lignin
- D) Pectin

3. In botanical terms, what is the specific name for the phenomenon where a plant species has separate male and female flowers on the same individual plant?

- A) Dioecious
- B) Monoecious**
- C) Hermaphroditic
- D) Polyandrous

4. Which Australian tree species is renowned for having the highest oil content in its leaves and is a primary food source for koalas?

- A) Eucalyptus globulus**
- B) Acacia pycnantha
- C) Melaleuca alternifolia
- D) Corymbia ficifolia

5. What is the specialized tissue in plants that transports water and dissolved minerals from the roots to the leaves?

- A) Phloem
- B) Cambium
- C) Xylem**
- D) Pith

6. Which group of plants, known as gymnosperms, consists of only one extant species, *Ginkgo biloba*?

A) Cycadales

B) Ginkgoales

C) Pinales

D) Gnetales

7. What is the term for a symbiotic relationship between a fungus and the roots of a vascular plant?

A) Rhizobia

B) Mycorrhiza

C) Lichens

D) Endophyte

8. Which of these plants is considered a 'hemiparasite' because it performs photosynthesis but extracts water and nutrients from a host tree?

A) *Cuscuta*

B) Mistletoe

C) *Rafflesia*

D) *Orobancha*

9. What is the primary chemical compound found in the leaves of the genus *Atropa* that makes the plant highly toxic?

A) Atropine

B) Nicotine

C) Caffeine

D) Morphine

10. Which botanical family does the commercial coffee plant, *Coffea arabica*, belong to?

A) Solanaceae

B) Rubiaceae

C) Fabaceae

D) Asteraceae

11. What is the largest living organism by surface area/root network, often found in Oregon's Malheur National Forest?

A) Pando (Quaking Aspen)

B) *Armillaria ostoyae* (Honey Fungus)

C) *Sequoiadendron giganteum*

D) *Ficus benghalensis*

12. Which plant mechanism involves the movement of water vapor out of the plant and evaporation into the atmosphere?

- A) Respiration
- B) Transpiration**
- C) Photosynthesis
- D) Guttation

13. The 'Welwitschia mirabilis' is a desert plant famous for its longevity and is native to which geographical region?

- A) The Atacama Desert
- B) The Namib Desert**
- C) The Gobi Desert
- D) The Sahara Desert

14. What is the botanical term for a fruit that develops from a single flower with many separate carpels, such as a strawberry or raspberry?

- A) Pome
- B) Aggregate fruit**
- C) Drupe
- D) Hesperidium

15. Which mineral is the central atom in the chlorophyll molecule, essential for photosynthesis?

- A) Iron
- B) Magnesium**
- C) Calcium
- D) Potassium

16. What is the process by which plants convert nitrogen gas from the atmosphere into ammonia, usually facilitated by bacteria in root nodules?

- A) Nitrogen assimilation
- B) Nitrogen fixation**
- C) Denitrification
- D) Nitrification

17. Which of the following describes the 'C4' photosynthetic pathway?

- A) A method to prevent photorespiration in hot climates**
- B) A way to grow in low light conditions
- C) A process of aquatic plant breathing
- D) A method used exclusively by mosses

18. What is the scientific name for the phenomenon of plants growing towards a light source?

- A) Gravitropism
- B) Thigmotropism
- C) Phototropism**
- D) Chemotropism