

Advanced Viticulture and Enology

Viticulture & Wine · Answer Key · 20 Questions

1. Which specific botanical feature of a grapevine is responsible for the 'veraison' stage of development?

- A) The hardening of the lignified shoot
- B) The transition of grape berries from growth to ripening**
- C) The dormancy period during winter
- D) The emergence of inflorescence clusters

2. What is the primary function of the 'rootstock' in modern commercial viticulture?

- A) To increase the sugar content of the juice
- B) To provide resistance against phylloxera**
- C) To improve the aesthetic color of the grape skin
- D) To speed up the fermentation process

3. Which chemical compound is primarily responsible for the 'cork taint' phenomenon in wine?

- A) Acetic acid
- B) 2,4,6-trichloroanisole (TCA)**
- C) Sulfur dioxide
- D) Ethyl acetate

4. In winemaking, what is the 'cap' that forms during the fermentation of red wine?

- A) A layer of dead yeast cells at the bottom
- B) A protective film of sulfur dioxide
- C) A layer of grape skins and solids pushed to the surface**
- D) The wax seal on the bottle

5. Which viticultural term describes the practice of removing excess leaves to increase sunlight exposure to the fruit?

- A) Canopy management**
- B) Chaptalization
- C) Cordon training
- D) Coulure

6. What does the process of 'malolactic fermentation' primarily convert in wine?

- A) Sugar into ethanol
- B) Malic acid into lactic acid**
- C) Tannins into anthocyanins
- D) Tartaric acid into glycerol

7. Which of these grape varieties is considered an 'ampelographical' crossing of Pinot Noir and Gouais Blanc?

A) Cabernet Sauvignon

B) Chardonnay

C) Merlot

D) Syrah

8. What is 'noble rot' (*Botrytis cinerea*) most commonly utilized to produce?

A) High-alcohol fortified wines

B) Sparkling wines with high acidity

C) Sweet, concentrated dessert wines

D) Dry wines with high tannin content

9. Which element is the main component of 'terroir' that refers specifically to the heat-retaining properties of the soil?

A) Drainage capability

B) Soil texture and mineral composition

C) Diurnal temperature variation

D) Nutrient leaching

10. What is the technical definition of 'bâtonnage' in white winemaking?

A) Filtering the wine through charcoal

B) Stirring the lees back into the wine

C) Adding sugar before fermentation

D) Pressing the grapes multiple times

11. Which vine training system is characterized by a horizontal permanent trunk with spurs placed at intervals?

A) Guyot system

B) Cordon system

C) Head training (Bush vines)

D) Lyre system

12. What is the primary purpose of 'racking' during the wine clarification process?

A) To increase oxygen exposure

B) To separate the clear wine from the sediment

C) To adjust the pH level of the wine

D) To pasteurize the juice

13. Which of the following acids is naturally found in grapes and increases as the grape matures?

- A) Malic acid
- B) Tartaric acid
- C) Citric acid
- D) None of the above**

14. What does the OIV (International Organisation of Vine and Wine) use as the standard unit for measuring vineyard surface area?

- A) Acre
- B) Hectare**
- C) Square mile
- D) Perch

15. What is the purpose of 'chaptalization' in regions where grape ripening is difficult?

- A) To reduce total acidity
- B) To increase potential alcohol by adding sugar**
- C) To stabilize color using additives
- D) To filter out impurities

16. Which compound, naturally occurring in red grape skins, is often studied for its antioxidant properties?

- A) Resveratrol**
- B) Lactic acid
- C) Potassium bitartrate
- D) Acetaldehyde

17. What is 'coulture' in viticulture?

- A) The failure of flowers to develop into berries**
- B) The excessive growth of shoots
- C) The infestation of fungal diseases
- D) The process of harvesting at night

18. In the context of sparkling wine production, what is 'dosage'?

- A) The addition of sugar and wine after disgorgement**
- B) The cooling of the wine to stop fermentation
- C) The process of removing sediment
- D) The measurement of carbon dioxide levels

19. Which mineral nutrient is essential for chlorophyll production and often added to vineyard soil?

A) Magnesium

B) Sodium

C) Chlorine

D) Silicon

20. What does a 'refractometer' measure in a vineyard?

A) Soil pH

B) Sugar concentration (Brix)

C) Vine tension

D) Air humidity