

Advanced Viticulture and Oenology Quiz

Viticulture & Wine · Answer Key · 20 Questions

1. Which specific enzyme is primarily responsible for the breakdown of malic acid into lactic acid and carbon dioxide during malolactic fermentation?

- A) Amylase
- B) Lipase
- C) Lactase

D) Malolactic enzyme (decarboxylase)

2. What is the principal phenolic compound responsible for the astringency and bitterness in red wines?

- A) Resveratrol
- B) Anthocyanin
- C) Quercetin

D) Tannin

3. The 'noble rot' that enhances sweetness and complexity in certain dessert wines is caused by which type of fungus?

- A) Botrytis cinerea**
- B) Phytophthora infestans
- C) Uncinula necator
- D) Erysiphe necator

4. Which soil type, characterized by its fine particles and excellent water retention but poor drainage, is common in some of Burgundy's most esteemed vineyards?

- A) Sandy loam
- B) Clay (Argile)**
- C) Gravel
- D) Chalk

5. What is the minimum percentage of a specific grape variety, as mandated by EU regulations for most quality wine designations, that must be present in a wine to be labeled as such?

- A) 75%
- B) 85%**
- C) 90%
- D) 100%

6. In winemaking, what is the process called where grape skins are intentionally broken to release more juice during the initial stages of fermentation?

- A) Punching down
- B) Remontage (pumping over)
- C) Délestage (rack and return)**
- D) Maceration

7. Which specific compound, often described as 'green bell pepper' or 'vegetal', is a methoxypyrazine that contributes to the aroma profile of certain grape varieties like Cabernet Sauvignon and Sauvignon Blanc?

- A) Diacetyl
- B) Ethyl acetate
- C) Isobutyl methoxypyrazine (IBMP)**
- D) Geraniol

8. What is the critical soil pH range for optimal yeast activity during fermentation?

- A) 3.0-3.5
- B) 4.0-4.5
- C) 5.0-5.5**
- D) 6.0-6.5

9. Which of the following is NOT a primary component of wine's aroma profile?

- A) Esters
- B) Terpenes
- C) Volatile thiols
- D) Minerals**

10. What is the primary purpose of 'égerage' (lees stirring) in winemaking, particularly for white wines like Chardonnay?

- A) To clarify the wine by settling solids
- B) To increase the wine's acidity
- C) To impart nutty, bready, and savory complexity**
- D) To speed up fermentation

11. Which grape variety is the primary red grape used in the production of Port wine?

- A) Touriga Nacional**
- B) Syrah
- C) Tempranillo
- D) Grenache

12. What is the scientific term for the process of yeast converting sugar into ethanol and carbon dioxide?

- A) Glycolysis
- B) Respiration
- C) Fermentation**
- D) Oxidation

13. Which ancient civilization is widely credited with the earliest systematic cultivation of grapevines and production of wine on a significant scale?

- A) Romans
- B) Greeks
- C) Egyptians**
- D) Phoenicians

14. What is the primary function of tannins in red wine aging?

- A) To provide sweetness
- B) To act as antioxidants and promote structure**
- C) To increase acidity
- D) To add fruity aromas

15. Which region is famous for its dry, aromatic white wines made primarily from the Riesling grape, known for high acidity and potential for long aging?

- A) Bordeaux
- B) Tuscany
- C) Mosel**
- D) Rioja

16. What is the principal grape varietal used in the production of Champagne?

- A) Chardonnay
- B) Pinot Noir
- C) Meunier
- D) All of the above (often a blend)**

17. The process of removing grape stems before fermentation is called:

- A) Crushing
- B) Destemming**
- C) Pressing
- D) Maceration

18. Which of the following is a yeast nutrient commonly added during fermentation to ensure a healthy and complete conversion of sugar to alcohol?

- A) Potassium sorbate
- B) Sulfur dioxide
- C) Diammonium phosphate (DAP)**
- D) Tartaric acid

19. What is the primary reason for the characteristic nutty and sherry-like aromas that can develop in wines aged under a 'flor' (a veil of yeast)?

- A) Oxidation
- B) Reduction**
- C) High temperatures
- D) Extended oak aging

20. Which is the most widely planted grape varietal in the world, both for wine and table grape production?

- A) Merlot
- B) Cabernet Sauvignon**
- C) Chardonnay
- D) Cabernet Franc