

1. Where are stomata located?

- a. the underside of leaves
- b. the cordon
- c. the top of leaves
- d. the roots

2. Where is sugar produced via photosynthesis?

- a. the grapes
- b. the leaves
- c. the roots
- d. the tendrils

3. Which of the following parts of the grapevine possess lobes & teeth?

- a. the grapes
- b. the leaves
- c. the roots
- d. the tendrils

4. Leaf color is responsive to which of the following:

- 1. vine nutrition
- 2. herbicide contamination
- 3. viral infections

- a. 1
- b. 1 & 3
- c. 2 & 3
- d. 1, 2 & 3

5. Where is zinc deficiency most likely to occur?

- a. limestone soil
- b. gravel soil
- c. sandy soil
- d. clay soil

6. Which of the following grape species is of Asian origin?

- a. *Vitis amurensis*
- b. *Vitis aestivalis*
- c. *Vitis rupestris*
- d. *Vitis berlandieri*

7. What is the current scientific name for *Phylloxera vastatrix*?

- a. *Phylloxera vitifoliae*
- b. *Plasmopara viticola*
- c. *Dactylasphaera vitifoliae*
- d. *Oidium tuckerii*

8. Which of the following are forms of frost protection?

- 1. vineyard site selection
- 2. 'aspersion' sprinkler method
- 3. smudge pots
- 4. wind machines

- a. 2 & 3
- b. 1, 2 & 3
- c. 2, 3 & 4
- d. 1, 2, 3 & 4

9. What unit is used to express the specific gravity of a wine?

- a. g/l
- b. mg
- c. hl/ha
- d. none of the above

10. What does the unit ha/hl describe?

- a. vine yields
- b. vine density
- c. liquid density
- d. the size of the vineyard

11. Which of the following statements is true?

- a. leafroll virus increases wine quality by reducing yields
- b. leafroll virus is spread chiefly by spores
- c. there is no control of leafroll virus once a vine has become infected
- d. all vine varieties exhibit the same symptoms of leafroll virus

12. Blue fining helps prevent which of the following wine faults?

- a. TCA
- b. iron casse
- c. volatile acidity
- d. brettanomyces

13. Which of the following are asexual means of propagating a vine variety?

1. layering
2. seeds
3. cuttings
4. micropropagation

- a. 1
- b. 2
- c. 1, 2 & 3
- d. 1, 3 & 4

14. Dijon clones of Pinot Noir belong to the same what?

- a. species
- b. variety
- c. genus
- d. all of the above

15. What does a hydrometer measure?

- a. the sugar levels of the must
- b. the phenol
- c. the specific gravity of a liquid
- d. the density of a liquid

16. What are the two types of polyphenols?

- a. colloids & tannins
- b. tannins & anthocyanins
- c. tannins & esters
- d. flavonoids & anthocyanins

17. Vine density affects which of a vineyard's following aspects?

1. yield
2. vine vigour
3. harvesting methods
4. quality

- a. 4
- b. 2 & 4
- c. 1, 2 & 3
- d. 1, 3 & 4

18. What is ascorbic acid also known as?

- a. Vitamin A
- b. Vitamin C
- c. Lysozyme
- d. Copper Sulfate

19. Which of the following best describes the Scott Henry method of training?

- a. Canopy is divided vertically and the shoots are separated and trained into two curtains, upwards and downwards
- b. Canopy is trained horizontally on a pergola
- c. Canopy is divided horizontally into two curtains of upward-pointing shoots
- d. Spurs arranged in short arm in a circle at the top of a short trunk

20. What has Lenz Moser training been found to decrease?

- 1. Canopy management
- 2. Labor costs
- 3. Ripening time
- 4. Fruit quality

- a. 4
- b. 2 & 4
- c. 3 & 4
- d. 2, 3 & 4

21. Which of the following is not a fining agent?

- a. Gelatine
- b. PVPP
- c. PVC
- d. Isinglass

22. What is Odium also known as?

- a. Downy mildew
- b. Cork taint
- c. Phylloxera
- d. Powdery mildew

23. What is the purpose of fining?

1. haze prevention
2. oxidation prevention
3. removal of some tannin
4. removal of some residual sugar

- a. 1
- b. 1 & 2
- c. 1 & 3
- d. 2, 3 & 4

24. What is veraison?

- a. A form of asexual reproduction for the vine
- b. The stage in vine development that marks the beginning of grape ripening
- c. The French word for harvest
- d. The stage in vine development that signals that the grapes are overripe

25. How many grams of sugar would be needed to raise to potential alcohol of 2 liters of grape must by 1%?

- a. 14g
- b. 17g
- c. 20g
- d. 34g