



Place All Answers onto the Scantron sheet .... Do not write on the test.

- \_\_\_ 13. Most vitamins are measured in \_\_\_\_.
- a. milligrams
  - b. grams
  - c. liters
  - d. kilograms
- \_\_\_ 14. The most important food appearance factor is \_\_\_\_.
- a. color
  - b. size
  - c. shape
  - d. packaging
- \_\_\_ 15. Naturally occurring \_\_\_\_ play a role in food coloring.
- a. enzymes
  - b. sugars
  - c. pigments
  - d. carbohydrates
- \_\_\_ 16. Fruits and vegetables are graded based on their \_\_\_\_ and \_\_\_\_.
- a. size, shape
  - b. color, size
  - c. smell, shape
  - d. smell, color
- \_\_\_ 17. Bacteria or molds that require atmospheric oxygen are \_\_\_\_.
- a. anaerobic
  - b. aerobic
  - c. mesophilic
  - d. thermophilic
- \_\_\_ 18. \_\_\_\_ can destroy the microorganisms and inactivate enzymes.
- a. Radiation
  - b. Cooling
  - c. Drying
  - d. Freezing
- \_\_\_ 19. \_\_\_\_ is the transfer of heat from one particle to another by contact.
- a. Conduction
  - b. Convection
  - c. Radiation
  - d. Combustion
- \_\_\_ 20. Intimate contact occurs between the food or package and the refrigerant with \_\_\_\_ freezing.
- a. blast
  - b. pressure
  - c. cold
  - d. immersion
- \_\_\_ 21. The freezing point for pure water is \_\_\_\_°F.
- a. 10
  - b. 15
  - c. 28
  - d. 32
- \_\_\_ 22. Which vitamin is used most commonly to control browning in fruits by enzymes?
- a. K
  - b. C
  - c. B
  - d. D
- \_\_\_ 23. Foods high in \_\_\_\_ or other solutes dry more slowly.
- a. protein
  - b. salt
  - c. sugar
  - d. water
- \_\_\_ 24. \_\_\_\_ is when water goes from a solid to a gas without passing through the liquid phase.
- a. Transfusion
  - b. Sublimation
  - c. Evaporation
  - d. Condensation
- \_\_\_ 25. Reducing the volume and weight of a product saves \_\_\_\_ during processing.
- a. time
  - b. energy
  - c. money
  - d. flavor





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## 2013 Iowa FFA Food Science CDE General Knowledge Exam

### Answer Section

#### MULTIPLE CHOICE

- |            |        |            |        |
|------------|--------|------------|--------|
| 1. ANS: A  | PTS: 1 | 42. ANS: B | PTS: 1 |
| 2. ANS: A  | PTS: 1 | 43. ANS: A | PTS: 1 |
| 3. ANS: D  | PTS: 1 | 44. ANS: B | PTS: 1 |
| 4. ANS: A  | PTS: 1 | 45. ANS: D | PTS: 1 |
| 5. ANS: A  | PTS: 1 | 46. ANS: A | PTS: 1 |
| 6. ANS: D  | PTS: 1 | 47. ANS: B | PTS: 1 |
| 7. ANS: D  | PTS: 1 | 48. ANS: D | PTS: 1 |
| 8. ANS: C  | PTS: 1 | 49. ANS: D | PTS: 1 |
| 9. ANS: B  | PTS: 1 | 50. ANS: A | PTS: 1 |
| 10. ANS: C | PTS: 1 |            |        |
| 11. ANS: A | PTS: 1 |            |        |
| 12. ANS: A | PTS: 1 |            |        |
| 13. ANS: A | PTS: 1 |            |        |
| 14. ANS: A | PTS: 1 |            |        |
| 15. ANS: C | PTS: 1 |            |        |
| 16. ANS: A | PTS: 1 |            |        |
| 17. ANS: B | PTS: 1 |            |        |
| 18. ANS: A | PTS: 1 |            |        |
| 19. ANS: A | PTS: 1 |            |        |
| 20. ANS: D | PTS: 1 |            |        |
| 21. ANS: D | PTS: 1 |            |        |
| 22. ANS: B | PTS: 1 |            |        |
| 23. ANS: C | PTS: 1 |            |        |
| 24. ANS: B | PTS: 1 |            |        |
| 25. ANS: C | PTS: 1 |            |        |
| 26. ANS: A | PTS: 1 |            |        |
| 27. ANS: C | PTS: 1 |            |        |
| 28. ANS: A | PTS: 1 |            |        |
| 29. ANS: A | PTS: 1 |            |        |
| 30. ANS: A | PTS: 1 |            |        |
| 31. ANS: A | PTS: 1 |            |        |
| 32. ANS: D | PTS: 1 |            |        |
| 33. ANS: D | PTS: 1 |            |        |
| 34. ANS: A | PTS: 1 |            |        |
| 35. ANS: A | PTS: 1 |            |        |
| 36. ANS: A | PTS: 1 |            |        |
| 37. ANS: C | PTS: 1 |            |        |
| 38. ANS: C | PTS: 1 |            |        |
| 39. ANS: D | PTS: 1 |            |        |
| 40. ANS: C | PTS: 1 |            |        |
| 41. ANS: C | PTS: 1 |            |        |