

Culinary Science Fundamentals

Culinary Arts · Practice Test · 25 Questions

1. What is the primary gas responsible for the leavening of bread dough during fermentation?

- A) Oxygen
- B) Carbon dioxide
- C) Nitrogen
- D) Helium

2. Which protein in wheat flour forms the elastic structure of bread dough when mixed with water?

- A) Albumin
- B) Casein
- C) Gluten
- D) Collagen

3. What is the chemical process of browning food that creates complex flavors through the reaction of amino acids and sugars?

- A) Maillard reaction
- B) Oxidation
- C) Fermentation
- D) Caramelization

4. At what temperature does water reach its boiling point at standard atmospheric pressure?

- A) 90 degrees Celsius
- B) 100 degrees Celsius
- C) 110 degrees Celsius
- D) 120 degrees Celsius

5. Which component of milk is responsible for the coagulation process used to make cheese?

- A) Lactose
- B) Casein
- C) Whey
- D) Butterfat

6. What type of heat transfer occurs when heat moves through direct contact between two surfaces?

- A) Convection
- B) Radiation
- C) Conduction
- D) Induction

7. Which substance is added to egg whites to stabilize the foam during the making of a meringue?

- A) Salt
- B) Cream of tartar
- C) Baking soda
- D) Sugar

8. What is the result of applying high heat to sugar until it decomposes and turns brown?

- A) Emulsification
- B) Caramelization
- C) Gelatinization
- D) Fermentation

9. Which fruit enzyme is commonly used as a natural meat tenderizer?

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

10. What process is used to turn liquid vegetable oils into semi-solid fats?

- A) Distillation
- B) Hydrogenation
- C) Pasteurization
- D) Homogenization

11. What is the main acid found in vinegar?

- A) Citric acid
- B) Acetic acid
- C) Lactic acid
- D) Malic acid

12. Which of these is a process that uses heat to kill harmful bacteria in food products like milk?

- A) Pasteurization
- B) Freezing
- C) Dehydration
- D) Salting

13. What is the primary thickening agent in a classic roux?

- A) Sugar
- B) Starch
- C) Salt
- D) Vinegar

14. What happens to the structure of gelatin when it is heated in water?

- A) It crystallizes
- B) It solidifies
- C) It dissolves
- D) It evaporates

15. Which common kitchen ingredient is a base that reacts with acids to produce carbon dioxide?

- A) Baking soda
- B) Cornstarch
- C) Salt
- D) Honey

16. What type of emulsion is mayonnaise?

- A) Water in oil
- B) Oil in water
- C) Gas in liquid
- D) Solid in gas

17. Which nutrient is most susceptible to degradation when exposed to light and air?

- A) Fat
- B) Vitamin C
- C) Fiber
- D) Protein

18. What is the technical term for the hardening of starch granules when heated in liquid?

- A) Gelatinization
- B) Coagulation
- C) Caramelization
- D) Emulsification

19. What is the primary reason for adding salt to cooking water for pasta?

- A) To increase boiling point
- B) To improve flavor
- C) To prevent sticking
- D) To speed up cooking

20. Which gas is released when baking soda reacts with an acid?

- A) Oxygen
- B) Carbon dioxide
- C) Hydrogen
- D) Nitrogen

21. What is the main chemical component of table salt?

- A) Sodium chloride
- B) Potassium chloride
- C) Magnesium sulfate
- D) Calcium carbonate

22. What property of fats makes them essential for creating flaky textures in pastry?

- A) Acidity
- B) Hydrophobicity
- C) Sweetness
- D) Volatility

23. What causes the green color in vegetables to dull when overcooked?

- A) Loss of chlorophyll
- B) Increase in sugar
- C) Oxidation of minerals
- D) Breakdown of fiber

24. Which form of heat transfer involves the movement of currents in liquids or gases?

- A) Conduction
- B) Convection
- C) Radiation
- D) Refraction

25. What substance is created when an acid reacts with a base in a chemical leavening agent?

- A) Water
- B) Salt
- C) Sugar
- D) Oil