

**National FFA Organization**  
2018 Meats Evaluation & Technology CDE  
**Written Test**

***Instructions: Carefully read each item and possible answers. Mark the correct answer on the correct CDE form. Completely fill the chosen ovals to indicate your answers.***

1. According to FSIS, which of the following applies to meat labeled as “Natural”?
- A. No added color
  - B. No artificial ingredients
  - C. Minimally processed
  - D. All of the above apply to meat labeled as “Natural”

(CEV Meat Science & Food Safety slide #84)

2. Growth-Promoting Implants are NOT approved for use in which species?
- A. Hormonal implants are approved for use in all species.
  - B. Cattle
  - C. Sheep
  - D. Swine

(CEV Meat Science & Food Safety slide #30)

3. After a power outage, meat in the refrigerator is safe for 6 to 8 hours, unless meat temperature rises above \_\_\_ for more than 2 hours.
- A. 10°F
  - B. 20°F
  - C. 30°F
  - D. 40°F

(CEV Meat Science & Food Safety slide #111)

4. Which of the following is a primal cut of lamb?
- A. Breast
  - B. Brisket
  - C. Ham
  - D. Round

(CEV Meat Science & Food Safety slide #64)

5. Meat should be defrosted in all of the following ways EXCEPT
- A. In a microwave oven
  - B. In a refrigerator
  - C. In cold water
  - D. On a countertop at room temperature

(CEV Meat Science & Food Safety slide #117)

6. Which of the following statements is true of Water-Added Ham?
- A. It must be the entire hind leg of a hog.
  - B. It shall not contain more than 30% of the fresh ham in added moisture.
  - C. It can be made from the Boston or picnic shoulder.
  - D. It uses water as an essential part of the curing process.

(CEV Meat Science & Food Safety slide #68)

7. In meat products, what is the major reason for net weight loss from packaging to counter?
- A. Fat evaporation
  - B. Loss of vitamins and minerals
  - C. Moisture loss
  - D. Protein breakdown

(CEV Meat Science & Food Safety slide #75)

8. Generally, three ounces of lean lamb contains 74 percent of the recommended daily allowance (RDA) for \_\_\_\_.
- A. Carbohydrates
  - B. Protein
  - C. Vitamin B12
  - D. Zinc

(CEV Meat Science & Food Safety slide #57)

9. What compounds are used to absorb oxygen, reducing or preventing the oxidation of food?
- A. Anaerobicoxidants
  - B. Antioxidants
  - C. Curing Corroders
  - D. Oxygen Inhibitors

(CEV Meat Science & Food Safety slide #160)

10. Maturity classes divide meat into categories based on age. Which of the following utilize maturity classes?
- A. Cattle & Pork
  - B. Cattle & Sheep
  - C. Goats & Pork
  - D. Pork & Sheep

(CEV Meat Science & Food Safety slide #85)

11. All of the following are plant enzymes used to tenderize meat EXCEPT
- A. Bromelain
  - B. Ficin
  - C. Neotame
  - D. Papain

(CEV Meat Science & Food Safety slide #168)

12. Riboflavin is an example of these water soluble vitamins.
- A. A Vitamins
  - B. B Vitamins
  - C. C Vitamins
  - D. D Vitamins

(CEV Meat Science & Food Safety slide #53)

13. What is another term for Cold Cuts?
- A. Cured meats
  - B. Luncheon meats
  - C. Meat by-products
  - D. Variety meats

(CEV Meat Science & Food Safety slide #154)

14. Which of the following is the thin myofilament in the muscle sarcomere?

- A. Actin
- B. Actosin
- C. Bundle
- D. Myosin

(CEV Meat Science & Food Safety slide #59)

15. What should be done to pre-cooked sausages (such as frankfurters) when using a microwave oven?

- A. Cut off the ends to allow expansion
- B. Keep the casings whole to preserve moisture
- C. Pierce the casings to vent steam
- D. Split the sausage in quarters to assure even cooking

(CEV Meat Science & Food Safety slide #145)

16. This important piece of legislation was enacted the same day as the Meat Inspection Act. It prohibited the sale, manufacture and transportation of adulterated food products.

- A. Food and Drug Act
- B. Packers and Stockyards Act
- C. Pure Food and Drug Act
- D. Wholesome Meat Act

(CEV Meat Science & Food Safety slide #12)

17. The Meat Inspection Act of 1906 was prompted by which book by Upton Sinclair?

- A. *Charlotte's Web*
- B. *FSIS Standards*
- C. *The Jungle*
- D. *The Meat We Eat*

(CEV Meat Science & Food Safety slide #10)

18. What does the acronym HACCP stand for?

- A. Hazmat Critical Control Point
- B. Hazard Analysis Critical Control Point
- C. Hazard Awareness Critical Collection Program
- D. Harmful Analysis Crucial Control Program

(CEV Meat Science & Food Safety slide #20)

19. Handling leftovers should have the ultimate goal of \_\_\_ to slow bacterial growth.

- A. fast cooling
- B. fast heating
- C. slow cooling
- D. slow heating

(CEV Meat Science & Food Safety slide #121)

20. Due to regulations concerning BSE, downer cattle cannot be harvested for human or animal consumption. What is BSE?

- A. Bovine Spondilosis Endoscopy
- B. Bovine Spongiform Encephalopathy
- C. Breed Sporozoite Encephalopathy
- D. Breed Sustained Embryotomy

(CEV Meat Science & Food Safety slide #39)

21. When is it better to use a dry cooking method?
- A. For cuts with large amounts of connective tissue
  - B. For ground products
  - C. For less tender cuts
  - D. For lower quality cuts

(CEV Meat Science & Food Safety slide #131)

22. All of the following are true about water in the meat industry EXCEPT
- A. Water aids in evisceration
  - B. Water is essential to all life processes
  - C. Water makes hide removal more difficult
  - D. Water must be provided to livestock through the life cycle until the point of harvest

(CEV Meat Science & Food Safety slide #36)

23. When smoking meats, two thermometers are recommended. One thermometer is used to measure the internal temperature of the meat. What should the other thermometer measure?
- A. The air temperature of the smoker
  - B. The surface temperature of the meat
  - C. The internal temperature of the meat taken at a second location
  - D. The temperature outside of the smoker

(CEV Meat Science & Food Safety slide #142)

24. What is a synthetic chemical that shifts nutrients away from fat production to the promotion of lean muscle growth?
- A. Antibiotic
  - B. Beta-agonist
  - C. Growth-Promoting Implant
  - D. Zeranol

(CEV Meat Science & Food Safety slide #31)

25. Which piece of legislation passed in 1921 resulted in the monitoring of scales and brands?
- A. Meat Inspection Act
  - B. Packers and Stockyards Act
  - C. Pure Food and Drug Act
  - D. Uniform Wholesale Act

(CEV Meat Science & Food Safety slide #13 & #9)

26. When did labeling begin as a result of the Nutritional Labeling & Education Act?
- A. January 1973
  - B. December 1979
  - C. January 1990
  - D. January 2012

(CEV Meat Science & Food Safety slide #23)

27. What is used to retard mold growth on the outside of dried sausages?
- A. Di-Glycerides
  - B. Isolated Soy Proteins
  - C. Lecithin
  - D. Potassium Sorbate

(CEV Meat Science & Food Safety slide #169)

28. Which of the following specifies that meat be held for ten days to six weeks at 34°F to 38°F in a humidity controlled cooler?
- A. Brine aging
  - B. Dry aging
  - C. Smoking
  - D. Wet aging

(CEV Meat Science & Food Safety slide #80)

29. Which of the following are the proper storage temperatures?
- A. Below 32°F for cold products and above 140°F for hot products
  - B. Below 32°F for cold products and above 165°F for hot products
  - C. Below 40°F for cold products and above 140°F for hot products
  - D. Below 40°F for cold products and above 165°F for hot products

(CEV Meat Science & Food Safety slide #180)

30. Which nutrient is essential for the absorption of vitamins A, D, E, and K?
- A. Carbohydrates
  - B. Fat
  - C. Minerals
  - D. Protein

(CEV Meat Science & Food Safety slide #49)

31. Which of the following is the most common cause of foodborne illness?
- A. Mishandling food
  - B. Misidentifying meats
  - C. Misreading labels
  - D. Mistreating animals

(CEV Meat Science & Food Safety slide #182)

32. For a maturity score “A” beef carcass to make quality grade Choice<sup>o</sup> (Average Choice) the marbling score should be \_\_\_\_.
- A. Moderate<sup>0-100</sup>
  - B. Modest<sup>0-100</sup>
  - C. Slightly Abundant<sup>0-100</sup>
  - D. Small<sup>0-100</sup>

(CEV Meat Science & Food Safety slide #93)

33. Which type of meat cookery uses heated air circulated around the meat by a fan?
- A. Convection Oven
  - B. Grilling
  - C. Microwave Oven
  - D. Smoking

(CEV Meat Science & Food Safety slide #135)

34. Food is deemed “\_\_\_\_” unless it has a nutritional label.
- A. Misappropriated
  - B. Misbranded
  - C. Misregulated
  - D. Mistaken

(CEV Meat Science & Food Safety slide #21)

35. Which meat cookery method is recommended for thinner sliced meats?
- A. Broiling
  - B. Pan Frying
  - C. Roasting
  - D. Stewing

(CEV Meat Science & Food Safety slide #139)

36. Which of the following is the correct recommended refrigerated storage time?
- A. Fresh, Uncooked Beef = 6-8 days
  - B. Frankfurters = 2-3 weeks
  - C. Fresh, Uncooked Ground meats = 4-6 days
  - D. Sausage = 1 week

(CEV Meat Science & Food Safety slides #103 & #104)

37. What is the primary function of phosphates as processed meat additives?
- A. They add to nutritional value.
  - B. They aid in drying the product.
  - C. They increase water holding capacity.
  - D. They keep ingredients and seasonings evenly distributed throughout the mix.

(CEV Meat Science & Food Safety slide #171)

38. Prime, Choice, Good, Utility, and Cull are all quality grades for which species?
- A. Beef
  - B. Exotics
  - C. Lamb
  - D. Pork

(CEV Meat Science & Food Safety slide #98)

39. Which nutrient's primary function is to aid in the repair and maintenance of body cells?
- A. Carbohydrate
  - B. Fat
  - C. Protein
  - D. Water

(CEV Meat Science & Food Safety slide #46)

40. In order to aid in evisceration and reduce microbial contamination, feed is withheld from animals \_\_\_ prior to slaughter.
- A. 6 hours
  - B. 12 hours
  - C. 1 day
  - D. 2 days

(CEV Meat Science & Food Safety slide #37)

41. Improperly cooked beef products have been commonly associated with Trichinosis.
- A. True
  - B. False

(CEV Meat Science & Food Safety slide #191)

42. If an antibiotic has been used to treat a disease, the animal will lose its organic status.
- A. True
  - B. False

(CEV Meat Science & Food Safety slide #82)

43. In the beef carcass, physiological age is an estimate of the actual chronological age.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #90)

44. Lysine is an essential amino acid found in meat.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #47)

45. Over 12,000 species of *Salmonella* cause illness when ingested.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #189)

46. Pan broiling is recommended for steaks and chops more than 2 inches thick.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #138)

47. Re-Freezing meat causes no deterioration of quality as long as it is done correctly.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #112)

48. “Shoulder” is a primal cut found in the beef carcass.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #62)

49. *Trichinella spiralis* is a nematode worm.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #191)

50. Uniform retail meat identity standards were implemented in 1973. This established a single, specific name for each basic retail cut.

- A. True
- B. False

(CEV Meat Science & Food Safety slide #17)

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Written Test

KEY

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