

2023 National FFA Meat Evaluation CDE

Written Exam

1. The Humane Slaughter Act was originally passed in 1958 to ensure the proper treatment and humane handling of animals; which of the following animals were not included? (slide 15)
 - a. Swine
 - b. Sheep
 - c. Horses
 - d. Cattle
 - e. Chickens
2. Meat is a complete source of protein, and contains how many essential amino acids? (slide 45)
 - a. 1
 - b. 3
 - c. 7
 - d. 9
 - e. 11
3. What is the minimum safe internal temperature of whole muscle beef products recommended by USDA? (slide 129)
 - a. 125°F
 - b. 130°F
 - c. 145°F
 - d. 160°F
 - e. 165°F
4. True/False: Fat found in beef, pork and veal is typically greater than 50% saturated fats. (slide 51)
 - a. True
 - b. False
5. What are synthetic chemicals which shift nutrients away from fat production to the promotion of lean muscle growth? (slide 32)
 - a. Beta-Agonists
 - b. Synthetic hormones
 - c. Implants
 - d. Antibiotics
 - e. Vitamins

6. True/False: The Wholesome Meat Act requires a federal USDA or state inspection mark, which is an indicator of meat quality. (slide 16 & 17)
- a. True
 - b. False
7. What compound aids in the repair and maintenance of body cells, and is responsible for body structure and chemical reactions essential to life? (slide 47)
- a. Protein
 - b. Water
 - c. Fat
 - d. Carbohydrates
 - e. Vitamins
8. What is the term for an amino acid that cannot be synthesized by the body, therefore they must be consumed from dietary sources? (slide 48)
- a. Synthetic
 - b. Supplement
 - c. Essential
 - d. Non-Essential
 - e. Hormone
9. Which act paved the way for creation of the Food and Drug Administration (FDA)? (slide 13)
- a. Meat Inspection Act
 - b. Pure Food and Drug Act
 - c. Packers and Stockyards Act
 - d. Wholesome Meat Act
 - e. Human Methods of Slaughter Act
10. Where are growth-promoting implants placed in swine? (slide 31)
- a. Intravenous
 - b. Neck
 - c. Ear
 - d. Hind Leg
 - e. Implants are not approved for usage in swine
11. True/False: Cholesterol can be produced by the body or can be obtained from dietary sources? (slide 53)
- a. True
 - b. False

12. Which government agency approves antibiotics for the use in livestock and sets the withdrawal periods? (Slide 34)
- a. FSIS
 - b. FDA
 - c. USDA
 - d. AMS
13. How long prior to harvest should feed be withheld from an animal to aid in evisceration? (slide 38)
- a. 1 hour
 - b. 12 hours
 - c. 24 hours
 - d. 48 hours
 - e. Feed should not be withheld
14. Which of the following hormones used in growth-promoting implants is not a natural hormone? (slide 30)
- a. Estradiol
 - b. Progesterone
 - c. Testosterone
 - d. Trenbolone Acetate
15. Triglycerides that contain no double bonds would be classified as a ____ fat. (slide 50)
- a. Monounsaturated
 - b. Polyunsaturated
 - c. Saturated
 - d. Polysaturated
16. What is Vitamin B₃ also commonly known as? (slide 54)
- a. Niacin
 - b. Biotin
 - c. Riboflavin
 - d. Thiamine
 - e. Folic Acid
17. A marbling score of Moderate⁵⁰ would result in what quality grade for a “A” maturity beef carcass? (Slide 94)
- a. Low Prime
 - b. High Choice
 - c. Average Choice

- d. Low Choice
- e. High Select

18. Which of the following is NOT a USDA Quality Grade for lamb? (slide 99)

- a. Good
- b. Select
- c. Choice
- d. Prime
- e. Cull

19. True/False: Re-Freezing meat causes no deterioration of quality as long as it is done correctly. (slide 113)

- a. True
- b. False

20. Which of the following organisms would be most likely to cause a food intoxication? (slide 185)

- a. *Salmonella* Newport
- b. *Clostridium botulinum*
- c. *E. coli* O157
- d. *Listeria monocytogenes*

21. USDA Yield Grades are a predictor of what valuable carcass attribute? (slide 89)

- a. Palatability
- b. Quality
- c. Weight
- d. Cutability
- e. Tenderness

22. Which of the following is NOT a primal cut of lamb? (slide 65)

- a. Shoulder
- b. Breast
- c. Rack
- d. Loin
- e. Round

23. The total weight of a food product, minus the weight of any packaging material, is commonly referred to which of the following? (slide 75)

- a. Total weight
- b. Pay weight
- c. Gross weight
- d. Net Weight
- e. Package Weight

24. What method of ritual slaughter follows Jewish dietary laws? (slide 20)
- a. Halal
 - b. Organic
 - c. Kosher
 - d. Gluten Free
 - e. Paleo
25. Deep fat frying would be considered what type of cookery method? (slide 133)
- a. Moist
 - b. Dry
 - c. Dry/Moist
26. The following represents the characteristics of meat labeled as “Natural”. (slide 85)
- a. Not administered antibiotics
 - b. Grass fed
 - c. Organic
 - d. Minimally Processed, No artificial ingredients
 - e. GMO free
27. All of the following are plant enzymes used to tenderize meat EXCEPT? (Slide 169)
- a. Bromelain
 - b. Ficin
 - c. Neotame
 - d. Papain
28. What is used to retard mold growth on the outside of dried sausages? (slide 170)
- a. Phosphates
 - b. Di-Glycerides
 - c. Isolated Soy Proteins
 - d. Lecithin
 - e. Potassium Sorbate
29. True/False: Over 12,000 species of Salmonella cause illness when ingested. (slide 190)
- a. True
 - b. False
30. True/False: Trichinella spiralis is a nematode worm. (slide 192)
- a. True
 - b. False
31. The “Brisket” primal comes from which species? (slide 63)
- a. Beef

- b. Lamb
- c. Pork
- d. Poultry

32. Which of the following is a correct statement regarding the labeling of processed meats?

(slide 154)

- a. All ingredients must be listed by level of protein.
- b. All ingredients must be listed in order of decreasing weight
- c. All ingredients do not have to be approved by FSIS
- d. All ingredients must be listed in order of increasing weight

33. Which of the following is not one of the seven principles of HACCP? (slide 177)

- a. Conduct a hazard analysis
- b. Identify critical control points
- c. Recognize potential failures
- d. Establish corrective actions
- e. Establish record keeping procedures

34. 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. (slide 112)

- a. 0°F
- b. 10°F
- c. 20°F
- d. 30°F
- e. 40°F

35. Which of the following is not a fat-soluble vitamin? (slide 50)

- a. Vitamin A
- b. Vitamin B
- c. Vitamin D
- d. Vitamin E
- e. Vitamin K

36. PFF is used in regulatory standards of hams, what does PFF stand for? (Slide 69)

- a. Percent Fat-Free
- b. Protein Fat-Free
- c. Pure Fat-Free
- d. Percent For Free
- e. Partially Fat-Free

37. What is another term for Cold Cuts? (slide 155)

- a. Cured meats
- b. Luncheon meats

- c. Meat by-products
- d. Variety meats
- e. Frozen Meat

38. 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? (slide 143)

- 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

39. Which of the following is the most common cause of foodborne illness? (slide 183)

- a. Mishandling food
- b. Misidentifying meats
- c. Misreading labels
- d. Mistreating animals

40. All of the following are true about water in the meat industry EXCEPT? (slide 37)

- 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

41. Which type of meat cookery uses heated air circulated around the meat by a fan? (slide 136)

- a. Convection Oven
- b. Grilling
- c. Microwave Oven
- d. Smoking
- e. Roasting

42. Which of the following is the correct recommended refrigerated storage time? (slides 104-105)

- a. Fresh, Uncooked Beef, steaks = 6-8 days
- b. Frankfurters = 2-3 weeks
- c. Fresh, Uncooked Ground meats = 4-6 days
- d. Smoked Sausage = 1 week
- e. Bacon = 1-2 weeks

43. Which nutrient is used to synthesize Vitamin D, and form bile salts to aid in digestion of fats? (slide 52)

- a. Carbohydrate
- b. Fat
- c. Protein
- d. Water
- e. Cholesterol

44. True/False: Improperly cooked beef products have been commonly associated with Trichinosis. (slide 130)

- a. True
- b. False

45. True/False: If an antibiotic has been used to treat a disease, the animal will lose its organic status. (slide 83)

- a. True
- b. False

46. Which of the following was NOT a main impact of the Meat Inspection Act on the meat industry? (slide 12)

- a. Required state inspection of processing facilities to equal or exceed federal inspection standards
- b. Antemortem inspection of all livestock before slaughter
- c. Authorized the United States Department of Agriculture (USDA) to monitor and inspect all harvesting and processing operations
- d. Sanitary conditions in all meat processing facilities
- e. Postmortem inspection of every carcass

47. Muscles are comprised of thousands of basic muscle contractile units known as what? (slide 60)

- a. Myosin
- b. Actin
- c. Bundles
- d. Sarcomeres
- e. Primals

48. True/False: Ground Beef may contain added beef fat, up to 30% of the total. (slide 68)

- a. True
- b. False

49. What common meat packaging method removes almost all the air from the package? (slide 73)

- a. Modified Atmosphere Packaging
- b. Vacuum Packaging
- c. Overwrap

d. Dry Aging

50. What compounds are used to prevent rancidity as they reduce or prevent oxidation in food? (slide 161)

- a. Flavoring
- b. Tenderizers
- c. Phosphates
- d. Antioxidants
- e. Curing Agents