2018 National FFA Poultry Evaluation CDE
Written Examination KEY

1. A broiler should reach 3.5 to 4.5 pounds of live weight in 6 to 7 weeks and require ____ or fewer pounds of feed per pound of body weight.
   a. Two
   b. Three
   c. Four
   d. Five

   Reference: C-4

AS.03.02 Analyze feed rations and assess if they meet the nutritional needs of animals.

2. _____ turkey production occurs under a contract system and growers are typically paid based on the number of birds produced.
   a. 75%
   b. 85%
   c. 95%
   d. 100%

   Reference: C-5

AS.01.02. Assess and select animal production methods for use in animal systems based upon their effectiveness and impacts.

3. According to the Aviagen Turkey Guide, the basis of the generally accepted practices of animal welfare are the five basic freedoms. Which of the following is not one of these listed freedoms?
   a. Freedom from thirst and hunger
   b. Freedom from confinement
   c. Freedom from fear and distress
   d. Freedom from pain, injury, and disease

   Reference: Turkey Guide, Page 4

AS.01.02. Assess and select animal production methods for use in animal systems based upon their effectiveness and impacts.

4. In the Aviagen Turkey Guide, what related management activity will help optimize foot pads and leg integrity?
   a. Walk the turkeys
   b. Provide slatted flooring
   c. Maintain deep pit manure levels below 4' in depth
   d. Turning litter each week or as needed

   Reference : Broiler Management Guide, page 12

AS.05. Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.

5. BAccording to the general recommendations for broiler stocking density around the world in the Cobb Broiler Management Guide, which system has the highest maximum stocking density of 8.6 pound/ft^2?
   a. Solid wall house with tunnel ventilation and evaporative cooling.
   b. Solid wall house with tunnel ventilation and foggers.

c. Open sided house with positive pressure ventilation and side wall fans at 60º.
d. Open sided house with natural ventilation and stir fans.

Reference : Broiler Management Guide, page 1

AS.08.01. Design and implement methods to reduce the effects of animal production on the environment.

6. A watering system utilizing Bell or Cup drinkers would be considered what type water system?
   a. High flow rate
   b. Low flow rate
   c. Open
   d. Closed

Reference : Broiler Management Guide, page 1

AS.07.01. Design programs to prevent animal diseases, parasites and other disorders and ensure animal welfare.

7. When analyzing hatchery data for chicks produced from a specific breeder farm that produces hatching eggs from 60-week-old hens, you determine that hatch of fertile was 88.6% and percentage hatch was 79%. This would indicate a hatchability problem likely related to:
   a. Problems associated at the breeder farm.
   b. Problems associated at the hatchery.
   c. Both farm and hatchery are likely not to be performing to standard.
   d. No trouble shooting information are indicated by this data.

Reference: Hatchery Management Guide, page 2

AS.06.02. Apply principles of comparative anatomy and physiology to uses within various animal systems.

8. In the section related to marketing of poultry products, branded poultry products have marketed well as an identifiable brand associated with a specific company; however, along with this brand identity is:
   a. Increased reluctance of merchandisers to stock these identified products for sale.
   b. Brands are associated with a processor and the reputation of the processor must be maintained to assure market presence and acceptability.
   c. A recall of a branded product is no trouble for the producer as product has no association.
   d. None of the above.

Reference: Marketing of Poultry Products, C-98, page 4

FPP.02.03.01.a. Examine and explain the importance of food labeling to the consumer.

9. The HACCP System has been implemented to prevent the potential of hazards associated with products. HACCP refers to:
   a. Hazard and Critical Commercial Products
   b. Hazard and Citizens Certification Process
   c. Hazard Analysis Certification Control Process

d. Hazard Analysis Critical Control Points

Reference: Marketing of Poultry Products, C-98, page 4

FPP.01.02. Apply food safety and sanitation procedures in the handling and processing of food products to ensure food quality.

10. In the processing of poultry broiler carcasses, chicken parts which are destined to be utilized as bone-in, breaded product in fast-food would typically be:
    a. Hard scalded
    b. Soft scalded
    c. Skinned
    d. None of the above

Reference: Processing Poultry Products, C-97, Page 3

FPP.01.03.01.a. Identify and summarize purposes of food storage procedures (e.g., first in/first out, temperature regulation, monitoring, etc.).

11. Reducing carcass temperature in processing is a critical step in broiler processing. The USDA requires that the carcasses must be chilled below:
    a. 45º F in 4 to 8 hours
    b. 40º F in 4 to 8 hours
    c. 40º F in 1 hour
    d. None of the above

Reference: Processing Poultry Products, C-97, Page 4

FPP.01.03.01.a. Identify and summarize purposes of food storage procedures (e.g., first in/first out, temperature regulation, monitoring, etc.).

12. The main objective of cooling of poultry meat during processing is to:
    a. Minimize muscle breakdown yet achieve tenderness
    b. Maintain favorable color of the product
    c. Remove residual heat from scalding process
    d. Minimize bacterial growth

Reference: Processing Poultry Products, C-97, Page 4

FPP.01.03.01.a. Identify and summarize purposes of food storage procedures (e.g., first in/first out, temperature regulation, monitoring, etc.).

13. The USDA, FSIS, stands for:
    a. Food Safety Inspection Service
    b. Federal and State Inspection Service
    c. Federal Services Inspection Safety
    d. None of the above as FSIS is a unit of the FDA (Food and Drug Administration)

Reference: Processing Poultry Products, C-97, Page 1

FPP.03.01.03.a. Identify and describe protocols for inspection and harvesting techniques for animal food products (e.g., pre-mortem and post-mortem inspections, Food Safety Inspection Service guidelines (FSIS), etc.).

14. Body conformation, fleshing and finish are factors to consider when evaluating broilers for meat production. What percentage should be assigned to the finish of the broiler.
    a. 45%
    b. 35%
    c. 40%
    d. 10%

Reference: B-2.

AS.06.02.03.c. Apply knowledge of anatomical and physiological characteristics of animals to make production and management decisions.

15. The fleshing on a broiler refers to the distribution of muscle and the total _____.
    a. of thigh meat
    b. of wing and back meat
    c. of drum and thigh meat
    d. of breast meat

Reference: B-3

AS.06.02.03.c. Apply knowledge of anatomical and physiological characteristics of animals to make production and management decisions.

16. The width of muscling is in direct correlation with the _____. B-19
    a. width of breast between the top keel to the point of the keel.
    b. width of breast between the points of the wing attachments.
    c. width of breast between the Pectoralis Major and Pectoralis Minor.
    d. width of breast between the Clavicle and Pectoralis Major.

Reference: B-4

AS.06.02.03.a. Identify and summarize the properties, locations, functions and types of animal cells, tissues, organs and body systems.

17. The specifications for standards of quality for individual carcasses and parts state that exposed flesh factors for a poultry carcass that weighs from 2 to 6 pounds is allowed no more than ____ inches of exposed flesh on the breast and leg area to grade USDA Grade A.
    a. ½”
    b. ¼”
    c. 1”
    d. ¾”

Reference: B-19

FPP.03.01.01.a. Summarize characteristics of quality and yield grades of food products.

18. The specifications for standards of quality for individual carcasses and parts state that “when grading parts the thigh with back portion, Leg, and Leg Quarter may have the ____ disjointed from the hip joint.”
    a. back portion
    b. drumstick
    c. humorous
    d. femur

Reference: B-19

FPP.03.01.01.a. Summarize characteristics of quality and yield grades of food products.

19. There are 4 major parts of an egg. The outer thin is found in which part of the four (4) parts? B-27
    a. Membrane
    b. Shell
    c. Ovum
    d. White

Reference: B-27

FPP.03.01.04.a. Identify and describe foods derived from different classifications of food products (e.g., meat, egg, poultry, fish, dairy, fruits, vegetables, grains, legumes, oilseeds, etc.).

20. Practically all freshly laid eggs contain four layers of albumen — chalaziferous, inner thin, thick, and outer thin. Another term for the chalaziferous is _____.
    a. outer thick
    b. outer membrane
    c. inner thick
    d. middle thick

Reference: B-33

AS.06.02.02.a. Examine the basic functions of animal cells in animal growth and reproduction.

21. An egg shell that has localized stains covering less than 1/32 of the shell or scattered stains covering less than 1/16 of the shell should receive a USDA grade of _____?
    a. Loss
    b. AA
    c. A
    d. B

Reference: B-33

FPP.03.01.01.a. Summarize characteristics of quality and yield grades of food products.

22. The Total surface area of a normal 2-ounce egg = __ square inches?
    a. 1 9/16 x 1 9/16
    b. 13/16 x 13/16
    c. 9/16 x 9/16
    d. 10½

Reference: B-33

FPP.03.01.04.a. Identify and describe foods derived from different classifications of food products (e.g., meat, egg, poultry, fish, dairy, fruits, vegetables, grains, legumes, oilseeds, etc.).

23. An egg shell that cracked inside the hen's body and then was repaired by additional calcium deposited over the cracked area, resulting in a ridged area should be graded a USDA ____.
    a. B Quality
    b. A Quality
    c. C Quality
    d. non-gradable

Reference: B-34

FPP.03.01.01.a. Summarize characteristics of quality and yield grades of food products.

24. Products with a "homestyle" appearance, will have greater than ___% coating pickup; at this level of pickup with products will be labeled as "fritters."
    a. 25
    b. 10
    c. 75
    d. 30

Reference: B-38

FPP.02.03.01.a. Examine and explain the importance of food labeling to the consumer.

25. The are several species of quail that exist in the world, but only four (4) are the most common. What species of quail cannot survive in the wild? C-151
    a. chukar
    b. coturnix
    c. bobwhite
    d. blue

Reference: C-151

AS.01.02.04.a. Identify and summarize wildlife management methods.

26. It takes 8-10 gallons of water to fill and clean 100 feet of ¾ inch waterline in a turkey house. If your building is 500 feet long and has two water lines you should make up a minimum of _____ gallons of cleaning solution.
    a. 90
    b. 100
    c. 110
    d. 120

Reference: Turkey Guide, Page 28; 10 x 5 x 2 = 100

BS.02.03. Apply standard operating procedures for the safe handling of biological and chemical materials in a laboratory.

27. Because hatcheries have no influence over fertility, it is important to consider hatch of fertile in addition to hatchability. The hatch of fertile percent is a measurement of the efficiency of the hatchery machinery. Hatch of fertile takes into account the flock fertility as well as hatchability. If you set 100,000 eggs from farm A on a given day and you have 86,000 chicks hatch from those eggs and you know that the eggs were 97% fertile, what is the hatch of fertile percentage for those eggs?

a. 80.66%
b. 84.66%
c. 88.66%
d. 92.66%

Reference: Hatchery management, page 2
% Hatch / % Fertile = % Hatch of Fertile
% Hatch = 860,00/100,000 = .86 (86%)
% Fertile = 97% (given in question)
.86 / .97 = .8866 (88.66%)

AS.03. Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.

28. A common feed blend for laying hens is based on a mixture of 67% corn, 22% soybean meal, 8% limestone and 3% other ingredients. If you had a 10-ton delivery of feed to your storage bin how many pounds of soybean meal was in the delivery?
    a. 4,000 lbs.
    b. 4,100 lbs.
    c. 4,200 lbs.
    d. 4,400 lbs.

Reference: C-125; 10 x .22 = 2.2 (tons); 2.2 x 2,000 = 4,400 pounds

AS.03. Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.

29. If you have 80,000-layer hens in your layer houses and you collected 71,155 eggs today, what is your percent hen-day egg production for today?
    a. 87.61%
    b. 88.94%
    c. 89.12%
    d. 90.67%

Reference: C-128; 71,155 / 80,000 = .8894 or 88.94%

AS.03. Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.

30. According to the Poultry Manual, only 49% of rated lumens of lighting systems in poultry houses are available to chickens in the house. If one 60-watt incandescent bulb produces 753.6 lumens; considering that one watt equals 12.56 lumens, how many lumens will actually be available to the chicken?
    a. ~392.3
    b. ~408.3
    c. ~369.3
    d. ~3,693

Reference: (C-129) 753.6 lumens x 49% = 369.3 (753.6.49=369.264)*

AS.06.03.02.c. Choose, implement and evaluate sustainable and efficient procedures (e.g., selection, housing, nutrition and management) to produce consistently high-quality animals that are well suited for their intended purposes.

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Written Examination
KEY

1. A, C-4; ABS.01.02
2. C, C-5
3. B, Turkey Guide, page 4
4. D, Broiler Management Guide, page 12
5. A, Broiler Management Guide, page 1
6. C, Broiler Management Guide, page 4
7. A, Hatchery Management Guide, page 2
8. B, Marketing of Poultry Products, C-98, page 4
9. D, Marketing of Poultry Products, C-98, page 4
10. A, Processing Poultry Products, C-97, page 3
11. B, Processing Poultry Products, C-97, Page 4
12. D, Processing Poultry Products, C-97, Page 4
13. A, Processing Poultry Products, C-97, Page 1
14. D, B-2
15. D, B-3
16. B, B-4
17. B, B-19
18. D, B-19
19. D, B-23
20. C, B-27
21. D, B-33
22. D, B-33
23. A, B-34
24. D, B-38
25. B, C-151
26. B, Turkey Guide, Page 28
    10 x 5 x 2 = 100
27. C, Hatchery management, page 2
    % Hatch / % Fertile = % Hatch of Fertile
    % Hatch = 860,00/100,000 = .86 (86%)
    % Fertile = 97% (given in question)
    .86 / .97 = .8866 (88.66%)
28. D, C-125
    10 x .22 = 2.2 (tons)
    2.2 x 2,000 = 4,400 pounds
29. B, C-128
    71,155 / 80,000 = .8894 or 88.94%
30. C, C-129
    753.6 lumens x 49% = 369.3 (753.6.49=369.264)*