

2010 National FFA Poultry CDE Management Examination

Directions: Please, read each item carefully. Using a No. 2 pencil, bubble the letter on your scan sheet that corresponds with the correct answer.

1. Which of the following steps is recommended to prevent shock of the embryo and condensation on the eggs during transfer for setting in an incubator?
 - a. Maintain proper storage conditions in the egg haul truck.
 - b. Pre-warm the eggs for a minimum 6 hours with proper air circulation.
 - c. Adjust a pre-warming time depending on egg storage temperature in the egg storage room for up to a maximum total time of 6 hours, as more time would shock the embryos.
 - d. Pre-warming of the eggs is not necessary as incubation temperature is best controlled by the incubator control system.

B C-86

2. Total incubation time of eggs is influenced by
 - a. egg size.
 - b. egg size and storage time.
 - c. egg size, storage time, and incubation temperature.
 - d. egg size and incubation temperature.

C C-86

3. Which of the following incubator conditions have been established as best for yielding good chick hatch rates?
 - a. Set with the small (pointed) end down, and turned hourly through 45 degree either side of the vertical.
 - b. Set on side, turned hourly especially during early incubation, and turned to at least 45 degree either side of vertical.
 - c. Set on side, rolled hourly especially early during incubation, and turned to at least 180 degree to either side.
 - d. Set end with air cell to bottom, turned hourly especially during early incubation, and turned to at least 45 degree either side of vertical.

A C-88

2010 National FFA Poultry CDE Management Examination

4. If you use the drinking water to vaccinate a flock of broiler breeders en masse, you should consider which of the following conditions?
- a. flock health status
 - b. whether sanitizers or disinfectants are present in the water lines
 - c. the vaccine's application instructions
 - d. All of the above conditions should be considered.

D C-107

5. In the interest of welfare and good management, the Animal Welfare Code of Practice recommended by the Farm Animal Welfare Council is that at no time should live weight of the broilers being grown per square foot of floor space exceed how many pounds in a controlled environment house?
- a. 5 pounds
 - b. 7 pounds
 - c. 9 pounds
 - d. 11 pounds

B C-109

6. Which of the following statements is true regarding evaporative cooling?
- a. Evaporative cooling systems are more effective with lower humidity than with higher humidity.
 - b. Evaporative cooling systems are less effective with lower humidity than with higher humidity.
 - c. Evaporative cooling system efficiencies are not affected by humidity.
 - d. Evaporative cooling systems can lower the temperature of a broiler house by a maximum of 35°F.

A C-118

2010 National FFA Poultry CDE Management Examination

7. Which of the following is the general hover set temperature of a starting house for turkey poults?
- a. 90°F to 95°F at floor level under the brooder and a room temperature of 75°F when the poults arrive.
 - b. 90°F to 95°F at floor level under the brooder and a room temperature of 85°F when the poults arrive.
 - c. 80°F to 85°F at floor level under the brooder and a room temperature of 85°F when the poults arrive.
 - d. 90°F to 95°F at floor level under the brooder and a room temperature of 65°F when the poults arrive.

A C-124

8. Which of the following is the recommended minimum floor space for tom turkey poults from 43 days of age to market?
- a. 3 square feet per bird
 - b. 5 square feet per bird
 - c. 1 square foot per bird
 - d. 1.5 square feet per bird

B C-125

9. Turkey hens are marketed usually at
- a. 6 to 8 weeks of age.
 - b. 16 to 18 weeks of age.
 - c. 20 to 22 weeks age.
 - d. 28 to 32 weeks of age.

B C-125

2010 National FFA Poultry CDE Management Examination

10. Which of the following is not true regarding expected expenditures for turkey contract growers?

- a. 85% of all costs are feed
- b. 20.4% of all costs are labor
- c. 7.9% of all costs are energy
- d. 46.7% of all costs are debt service

A C-130

11. The recommended floor space for brooding egg laying pullets reared on the floor is

- a. 1 square foot per bird.
- b. 0.75 square feet per bird.
- c. 3 square feet per bird.
- d. 5 square feet per bird.

A C-133

12. Leghorn type production hens reach peak egg production at about what age under proper production conditions?

- a. 18 weeks
- b. 20 weeks
- c. between 24 and 30 weeks
- d. 1 year

C C-135

13. Which of the following is a potential advantage of using cage laying systems for table egg production?

- a. floor eggs are eliminated
- b. eggs are cleaner
- c. internal parasites are diminished
- d. All of the above statements are potential advantages.

D C-137

2010 National FFA Poultry CDE Management Examination

14. Which of the following is accurate for egg laying flocks?

- a. Flocks not uniform in weight early in their production life tend to remain uneven.
- b. Common causes of lack of flock uniformity include crowding, improper beak trimming, disease, and inadequate nutrient intake.
- c. If 80% of the flock weighs within 10% of the flock's mean weight, flock uniformity is optimal.
- d. All of the above conditions of an egg laying flock are accurate.

D C-134

15. The vaccine to prevent Marek's disease is applied by

- a. placing it in drinking water or by using a spray cabinet.
- b. eye drop.
- c. wing-web application.
- d. subcutaneous injection.

D C-136

16. Which of the following factors improves after induced molting of an older laying flock?

- a. egg production or rate of lay
- b. shell quality
- c. albumen quality, measured as height
- d. All of the above factors improve.

D C-139

17. In terminology describing standard purebred chickens, the word *breed* refers to

- a. groups of poultry identified as having the same color or comb type.
- b. groups of poultry having the same general shape.
- c. area of origin.
- d. the taxonomic class Aves.

B C-144

2010 National FFA Poultry CDE Management Examination

18. Poultry meat and eggs may harbor *Salmonella* occasionally. As a result, you should cook poultry meat and eggs to what temperatures?

- a. Poultry meat to an internal temperature of 170°F and eggs to 160°F, or until yolk and white are firm
- b. Poultry meat to an internal temperature of 190°F and eggs to 160°F, or until yolk and white are firm
- c. Poultry meat to an internal temperature of 170°F and eggs to 180°F, or until yolk and white are firm
- d. Poultry meat to an internal temperature of 185°F and eggs to 170°F, or until yolk and white are warm

A C-147

19. How many pound(s) of feed is needed to produce a dozen eggs in a typical white shell egg laying operation?

- a. 1.8 to 2 pounds
- b. 3.5 to 5 pounds
- c. 3.0 to 3.5 pounds
- d. 2.8 to 3.2 pounds

C C-4

20. Which of the following is not true regarding per capita consumption of meat in the United States in 2005?

- a. Poultry meat consumption exceeded the combined consumption of both beef and pork.
- b. Poultry meat consumption exceeded beef.
- c. Poultry meat consumption exceeded pork.
- d. 35% of all meat consumed in the United States in 2005 was poultry.

A C-7

2010 National FFA Poultry CDE Management Examination

21. To prepare for a career as a flock or processing plant supervisor in an integrated poultry company requires what level of education typically?

- a. primary
- b. secondary
- c. technical training
- d. college degree

D C-10

22. The uropygial gland is located where on the chicken?

- a. on the inside of the hock
- b. beneath the eye
- c. near the vent
- d. At the rear of the back and immediately before the main tail feathers.

D C-17

23. In the fowl, the lungs are connected to large, thin-walled

- a. viscera.
- b. air cells.
- c. air sacs.
- d. pulmonic reservoirs/pulmonary cavities.

C C-21

24. Avian red blood cells are

- a. similar to mammalian red blood cells.
- b. nucleated.
- c. part of the endocrine system.
- d. transport wastes and toxins only.

B C-27

2010 National FFA Poultry CDE Management Examination

25. Cell division in the blastoderm of the developing or freshly laid fertile egg stops when
- the egg enters the oviduct from the infundibulum.
 - the shell membranes are deposited and engulf the thick albumen.
 - the temperature of the egg drops below 85°F.
 - None of the above answers are correct, because a fertile egg must be incubated for cell division to occur.

C C-29

26. The feed ingredient salt (NaCl) contains about 39% sodium (Na). You are evaluating a turkey grower diet and you need to add 0.12% sodium to the diet. How much salt (NaCl) would you need to add to supply this amount of Na?

- .15%
- .39%
- .31%
- None of the above

C **$0.39X = 0.12$ (where X represents the amount of NaCl needed)**
 $X = 0.12/0.39 = \underline{0.31\%}$

27. Percent fertility is the percentage of eggs produced that are fertile. Percent hatchability is the percent of fertile eggs that hatch. Out of 900 eggs placed in an incubator, 90% were fertile and 640 chicks hatched. What was the percent hatchability?

- 79
- 90
- 91
- 71

A **$900 \times 90\% = 810$ fertile eggs**
 $(640 \text{ hatched eggs}/810 \text{ fertile eggs}) \times 100 = \underline{79\%}$

2010 National FFA Poultry CDE Management Examination

28. In the following example, 25,000 hens were placed into a laying house. On a day three months later, 2% of the birds had died and 21,000 eggs were collected. What was the hen-day percent egg production?

- a. 98
- b. 85.7
- c. 23.8
- d. 84

B **25,000 birds x 2% mortality = 500 birds that died**
 25,000 – 500 = 24,500 live birds remaining
 (21,000 eggs/24,500 live birds) x 100 = 85.7% hen-day egg production

29. In a broiler house, birds were raised at a density of 0.90 square feet per bird, and the average body weight of the birds was 5.85 pounds. What was the density of birds in the house expressed as pounds per square foot?

- a. 6.5 pounds per square foot
- b. 5.3 pounds per square foot
- c. 7 pounds per square foot
- d. 2.5 pounds per square foot

A **(5.85 pounds/bird) x (1 bird/0.90 square feet) = 6.5 pounds per square foot**

2010 National FFA Poultry CDE Management Examination

30. Two market turkey houses each contained 10,000 turkey hens. In both houses, the final average body weight of the turkey hens was 20 pounds. In one house, the FCR (feed conversion ratio, or pounds of feed consumed per pound of body weight) was 2.5, but in the other house it was 2.4. If feed cost was \$375 per ton, how much difference in feed cost existed between the houses?

- a. \$37.50
- b. \$375
- c. \$3,750
- d. \$37,500

C **$2.5 \times 20 \times 10,000 = 500,000$ pounds of feed consumed in house 1**
 $2.4 \times 20 \times 10,000 = 480,000$ pounds of feed consumed in house 2
Difference in feed consumed = 20,000 pounds = 10 tons of feed
10 tons of feed x \$375/ton = \$3,750