

**2012 ND State FFA Convention
Small Animal Care CDE Written Test**

Instructions: Read each of the following questions carefully and darken the oval of the letter you choose on the SCANTRON sheets provided. **MAKE CERTAIN THAT YOU ARE USING A No. 2 LEAD PENCIL!** If you do not have one, see one of the advisors running this event.

Breeding and Genetics: 10 Questions

1. In dogs, the average length of pregnancy is:
A. 45 days C. 63 days
B. 54 days D. 92 days

2. Another name for pregnancy is:
A. Gestation C. Nurturing
B. Lactation D. Parturition

3. A written record of an animal's ancestry is?
A. Breeding Chart C. Registration
B. Family Tree D. Pedigree

4. Cats have _____ pairs of chromosomes.
A. 17 C. 19
B. 18 D. 20

5. Configuration of the genes in an individual is the _____ of the individual.
A. Phenotype C. Heterotype
B. Genotype D. Homotype

6. _____ is the nutrient needed to grow new tissue and repair old tissue.
A. Protein C. Sulfur
B. Vitamin D D. Calcium

7. Zebra Finch reach sexual maturity at the age of?
A. 3 months C. 6 months
B. 9 months D. 12 months

8. The hormone that promotes pregnancy is called?
A. Estrogen C. Progesterone
B. Testosterone D. Pregantersone

9. Average gestation of a rabbit is:
A. 28-30 days C. 30-32 days
B. 32-34 days D. 34-36 days

10. Mating one male to more than one female is called _____ mating.
- A. Crossbred
 - B. Quorum
 - C. Harem
 - D. Hybrid

Nutrition: 10 Questions

11. Energy is primarily provided from?
- A. Vitamins
 - B. Minerals
 - C. Carbohydrates
 - D. All of the above
12. The small intestine is divided into three sections, which is the correct order food travels through them?
- A. Ileum-Jejunum-Duodenum
 - B. Jejunum-Ileum-Duodenum
 - C. Duodenum-Ileum-Jejunum
 - D. Duodenum-Jejunum-Ileum
13. What is the function of water in an animal's body?
- A. Biochemical reactions
 - B. Maintain body temperature
 - C. Helps give the body form
 - D. All of the above
14. Which of the following is classified as a macro mineral?
- A. Chlorine
 - B. Cobalt
 - C. Copper
 - D. Iodine
15. Which of the following plants is safe for pets to eat?
- A. Dracaena
 - B. Elephant Ear
 - C. English Ivy
 - D. None of the above
16. The following supplement provides the most useable calcium in a dog's diet:
- A. Cod Liver Oil
 - B. Bone Meal
 - C. Milk
 - D. Yeast
17. Vitamin A and D are needed in turtles to prevent all of the following except:
- A. Malocclusion
 - B. Depression
 - C. Pneumonia
 - D. Swollen Joints
18. Cats have a high requirement for?
- A. Protein
 - B. Carbohydrates
 - C. Calcium
 - D. Minerals
19. According to the N.R.C., the average dog should have a diet that consists of ___% fat?
- A. 15%
 - B. 23%
 - C. 19%
 - D. 30%
20. The taking in of feed and water is called?
- A. Degution
 - B. Mastication
 - C. Digestion
 - D. Prehension

31. To survive a hot day a deep sleep or **estivation** occurs in which animal?
- A. Cat
 - B. Rabbit
 - C. Hamster
 - D. Fish
32. Muscles are attached to bones by:
- A. Cartilage
 - B. Ligaments
 - C. Filaments
 - D. Tendons
33. Which is not one of the four basic tissues?
- A. Bone
 - B. Muscle
 - C. Epithelium
 - D. Nerve
34. What is the term used for the ability of an animal's tail to grasp or wrap around objects?
- A. Preferential
 - B. Preen
 - C. Prehensile
 - D. None of the above
35. The top layer of skin is called the?
- A. Epidermis
 - B. Sebaceous
 - C. Dermis
 - D. Subcutaneous

Diseases and Parasites: 10 Questions

36. The chemical which is found on flea collars is called a(n):
- A. Rodenticide
 - B. Herbicide
 - C. Fungicide
 - D. Insecticide
37. Which parasite is common to most species?
- A. Heartworm
 - B. Roundworm
 - C. Lung Worm
 - D. Tapeworm
38. Mange is a disease caused by?
- A. Mites
 - B. Mosquitoes
 - C. Ticks
 - D. Lice
39. If there is a bacterial infection under the skin a (n) _____ is likely to develop?
- A. Abscess
 - B. Colic
 - C. Adystocia
 - D. Dementia
40. Ringworm is classified as a(n):
- A. Fungi
 - B. Internal parasite
 - C. Bacteria
 - D. External parasite

41. Mosquitoes can transfer microfilaria to cause a disease in cats called?
A. Distemper C. Feline Leukemia
B. Heartworm D. Lung worm
42. The fine dead skin on the surface of cat's skin that may cause human allergies is?
A. Dander C. Hairballs
B. Papillae D. Scabies
43. Which of the following canine ailments is not zoonotic?
A. Rabies C. Ringworm
B. Roundworm D. Scabies
44. What disease is the most common cause of death in rabbits?
A. Enteritis C. Snuffles
B. Virus D. Weepy Eye
45. Swelling of the thyroid gland is a sign of?
A. Goiter C. Ulcer
B. Pasteurellosis D. Infectious canine hepatitis

Housing and Management: 5 Questions

46. Most fish are:
A. Egg buriers C. Egg depositors
B. Egg scatterers D. None of the above
47. Process of examining a dead animal is known as?
A. Autopsy C. Culture sensitivity
B. Necropsy D. Urinalysis
48. Sore hocks in rabbits are caused by?
A. Inactivity C. Wire cages
B. Wire floors D. Over activity
49. The lack of a well-developed _____ allows cats to move through narrow gaps.
A. Caudal C. Cervical
B. Pelvis D. Clavicle
50. The temperatures for hibernating reptiles should be between?
A. 19 and 30 degrees F C. 39 and 50 degrees F
B. 20 and 40 degrees F D. 49 and 60 degrees F

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 - C. Digestion
 - D. **Prehension**

2012 State Small Animal Care Team Problem

Team Name _____

Instructions: Work together with your teammates to complete the following table. Use the information of the three different types of dog food that has been provided. Round all dollar values to nearest cents, and others to nearest hundredth. *Use the high end of recommended feeding levels.* **Situation:** Johnny FFA is deciding which dog food to use for Hawk, his prized Golden Retriever. Hawk is an active dog that weighs 75 pounds and is used for waterfowl hunting.

	<i>Science Diet</i>	<i>Purina</i>	<i>Pedigree</i>
Protein% 1 pt. each(3)			
Max. Fat% 1 pt. each(3)			
Crude Fiber% 1 pt (3)			
Cost per Pound 3 pts each (9)			
Daily amount of feed needed to meet daily requirements. The answer in cups 3 pts. each (9)			
Cost per Day 5 pts. each (15)			
Cost per Month 2 pts. (6)			

Which dog food do you recommend for Hawk? Why? (2) _____

Notes:

1 Standard Cup= 8 ounces

8 Fluid ounces measuring Cup contains **4** ounces by weight

1 month=30 days

2012 State Small Animal Care Team Problem

Team Name: Key

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	<i>Science Diet</i>	<i>Purina</i>	<i>Pedigree</i>
Protein% 1 pt. each(3)	24.8%	25.0%	21.0%
Max. Fat% 1 pt. each(3)	16.1%	9.0%	10.0%
Crude Fiber% 1 pt (3)	2.2%	5.0%	4.0%
Cost per Pound 3 pts each (9)	\$1.67	\$0.88	\$0.61
Daily amount of feed needed to meet daily requirements. The answer in cups 3 pts. each (9)	5 ¼ cups or 5.25 cups	4 ¼ cups or 4.25 cups	4 ½ cups or 4.5 cups
Cost per Day 5 pts. each (15)	\$2.10-\$2.19	\$0.85-\$0.94	\$0.69-0.72
Cost per Month 2 pts. (6)	\$63.00-65.70	\$25.50-\$28.20	\$20.70-21.60

Which dog food do you recommend for Hawk? Why? (2) _____

Notes:

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1 month=30 days

Purina Fit & Trim Brand Dog Food

Bag Size: 37.5 pound

Cost-\$32.99

Product Information Guaranteed Analysis



Crude Protein (Min)	25.0%
Crude Fat (Min)	7.0%
Crude Fat (Max)	9.0%
Crude Fiber (Max)	5.0%
Moisture (Max)	12.0%
Vitamin A (Min)	10,000 IU/kg

Ingredients

Whole grain corn, meat and bone meal, whole grain wheat, soybean meal, corn gluten meal, corn germ meal, soybean germ meal, chicken, egg and chicken flavor, animal digest, animal fat preserved with mixed-tocopherols (form of Vitamin E), turkey by-product meal, salt, calcium carbonate, potassium chloride, L-Lysine monohydrochloride, added color (Red 40, Yellow 5, Blue 2), choline chloride, zinc sulfate, Vitamin E supplement, ferrous sulfate, manganese sulfate, niacin, Vitamin A supplement, copper sulfate, calcium pantothenate, garlic oil, pyridoxine hydrochloride, Vitamin B-12 supplement, thiamine mononitrate, Vitamin D-3 supplement, riboflavin supplement, calcium iodate, menadione sodium bisulfite complex (source of Vitamin K activity), folic acid, biotin, sodium selenite.

G-4490

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How Much To Feed

Recommended Daily Feeding Amount using a standard 8-oz. measuring cup
Purina® Fit & Trim® brand Adult Dog Food

25% CALORIE REDUCTION		WEIGHT MAINTENANCE
Dog's Current Weight	Feeding Amount*	Feeding Amount*
3 to 12 lbs.	1/3 to 1 cup	1/2 to 1-1/4 cups
13 to 20 lbs.	1 to 1-1/3 cups	1-1/4 to 1-3/4 cups
21 to 35 lbs.	1-1/3 to 2 cups	1-3/4 to 2-1/2 cups
36 to 50 lbs.	2 to 2-1/2 cups	2-1/2 to 3-1/4 cups
51 to 75 lbs.	2-1/2 to 3-1/4 cups	3-1/4 to 4-1/4 cups
76 to 100 lbs.	3-1/4 to 4 cups	4-1/4 to 5 cups
Over 100 lbs.	4 cups plus 1/3 cup for each 10 lbs. of body weight over 100 lbs.	5 cups plus 1/2 cup for each 10 lbs. of body weight over 100 lbs.

PEDIGREE- Adult Complete Nutrition for Dogs

Bag Size: 36 pound

Cost-\$21.99

GROUND WHOLE CORN, MEAT AND BONE MEAL, CORN GLUTEN MEAL, ANIMAL FAT (PRESERVED WITH BHA/CITRIC ACID), SOYBEAN MEAL, GROUND WHOLE WHEAT, BREWERS RICE, DRIED PLAIN BEET PULP, NATURAL FLAVOR, SALT, VEGETABLE OIL ([SOURCE OF LINOLEIC ACID] PRESERVED WITH BHA/BHT), POTASSIUM CHLORIDE, VITAMINS (CHOLINE CHLORIDE, α -TOCOPHEROL ACETATE [SOURCE OF VITAMIN E], NIACIN, BIOTIN, d -CALCIUM PANTOTHENATE, RIBOFLAVIN SUPPLEMENT [VITAMIN B2], PYRIDOXINE HYDROCHLORIDE, VITAMIN A SUPPLEMENT, VITAMIN B12 SUPPLEMENT, THIAMINE MONONITRATE [VITAMIN B1], VITAMIN D3 SUPPLEMENT) MINERALS (ZINC SULFATE, ZINC PROTEINATE, COPPER SULFATE, POTASSIUM IODIDE, COPPER PROTEINATE, MANGANESE PROTEINATE), ADDED FD&C COLORS (RED 40, YELLOW 5, BLUE 2).

335 calories per serving (8 oz measuring cup).

Crude Protein	Min 21.0%
Crude Fat	Min 10.0%
Crude Fiber	Max 4.0%
Moisture	Max 12.0%
Linoleic Acid (omega 6 Fatty Acid)	Min 3%
Copper	Min 10 mg/kg
Zinc	Min 200 mg/kg
Vitamin E	Min 300 IU/kg
Ascorbic Acid (Vit. C*)	Min 70 Mg/kg

Recommended daily feeding guide for adult dogs*

WEIGHT OF ADULT DOG CUPS PER DAY

Up to 10 lbs.	1/4 to 1
10 to 25 lbs.	1 to 2
25 to 50 lbs.	2 to 3 1/2
50 to 75 lbs.	3 1/2 to 4 1/2
75 to 150 lbs.	4 1/2 to 8

1 cup = 8 oz. measuring cup

1 can = 13.2 oz, 1 pouch = 5.3 oz.

Science Diet- Ideal Balance Adult Chicken& Brown Rice

Bag Size: 30 pound

Cost-\$49.99

Ingredients

Chicken, Brown Rice, Whole Grain Wheat, Cracked Pearled Barley, Soybean Meal, Chicken Meal, Pork Fat (preserved with mixed tocopherols and citric acid), Dried Egg Product, Natural Flavor, Whole Grain Oats, Apples, Lactic Acid, Soybean Oil, Cranberries, Peas, Carrots, Dried Beet Pulp, Iodized Salt, Flaxseed, Broccoli, vitamins (L-Ascorbyl-2-Polyphosphate (source of vitamin C), Vitamin E Supplement, Niacin, Thiamine Mononitrate, Vitamin A Supplement, Calcium Pantothenate, Biotin, Vitamin B12 Supplement, Pyridoxine Hydrochloride, Riboflavin, Folic Acid, Vitamin D3 Supplement), Calcium Carbonate, Vitamin E Supplement, Choline Chloride, minerals (Ferrous Sulfate, Zinc Oxide, Copper Sulfate, Manganous Oxide, Calcium Iodate, Sodium Selenite), Taurine, preserved with Mixed Tocopherols and Citric Acid, Phosphoric Acid, Beta-Carotene, Rosemary Extract

NUTRITION

Dry 3682 kcal/kg (377 kcal/cup²)

Nutrient	Dry Matter ¹ %
Protein	24.8
Fat	16.1
Carbohydrate (NFE)	51.3
Crude Fiber	2.2
Calcium	0.88
Phosphorus	0.72
Sodium	0.39
Potassium	0.74
Magnesium	0.161
Vitamin C	258 mg/kg
Vitamin E	701 IU/kg
Omega-3 Fatty Acids Total	0.51
Omega-6 Fatty Acids Total	3.73

Feeding Guide

Adult maintenance

Weight of Dog	Amount per Day
5 lb (2,3 kg)	1/2 cup (50 g) - 5/8 cup (65 g)
10 lb (4,5 kg)	3/4 cup (75 g) - 1 1/8 cups (115 g)
20 lb (9,1 kg)	1 1/3 cups (135 g) - 1 3/4 cups (180 g)
40 lb (18 kg)	2 1/4 cups (230 g) - 3 cups (305 g)
60 lb (27 kg)	3 cups (305 g) - 4 1/4 cups (435 g)
80 lb (36 kg)	3 3/4 cups (385 g) - 5 1/4 cups (535 g)
100 lb (45 kg)	4 1/3 cups (440 g) - 6 cups (610 g)

2012 ND State FFA Convention
Small Animal Care CDE
Anatomy Diagram Practicum-50 Points

Instructions: Study the copied handouts provided of the turtle's skeleton, reproductive system of a female bird, along with the skeleton of the bird. On the handouts you will see a number that corresponds to a structure you must name. The number of the structure will correspond to the list following these instructions. Simply place the letter of your choice for each structure on the Scantron sheet provided for this portion of the contest. Be certain to use a Number 2 lead pencil. If you must change your answer be sure to erase completely.

Structure Number 1:

- | | |
|-----------|------------|
| a. Digits | c. Trachea |
| b. Carpus | d. Hyoid |

Structure Number 2:

- | | |
|-------------|------------|
| a. Carpus | c. Llium |
| b. Coracoid | d. Sternum |

Structure Number 3:

- | | |
|----------------|------------|
| a. Tibiotarsus | c. Ulna |
| b. Atlas | d. Furcula |

Structure Number 4:

- | | |
|----------|-----------|
| a. Pubis | c. Radius |
| b. Llium | d. Alula |

Structure Number 5:

- | | |
|--------------|---------------------|
| a. Digits | c. Hyoid |
| b. Pygostyle | d. Cardal Vertebrae |

Structure Number 6:

- | | |
|---------------------|-------------------|
| a. Cardal Vertebrae | c. Rectum |
| b. Pygostyle | d. Ucinat process |

Structure Number 7:

- | | |
|----------------|---------------------|
| a. Tibiotarsus | c. Cardal Vertebrae |
| b. Skull | d. Hyoid |

Structure Number 8:

- | | |
|-----------|--------------------|
| a. Alula | c. Digits |
| b. Radius | d. Tarsometatarsus |

Structure Number 9:

- a. Metacarpus
- b. Sternum
- c. Furcula
- d. Carpus

Structure Number 10:

- a. Coracoid
- b. Ulna
- c. Femur
- d. Pubis

Structure Number 11:

- a. Trachea
- b. Ilium
- c. Hyoid
- d. Furcula

Structure Number 12:

- a. Pygostyle
- b. Hyoid
- c. Femur
- d. Alula

Structure Number 13:

- a. Ear
- b. Skull
- c. Cardal Vertebrae
- d. Hyoid

Structure Number 14:

- a. Cardal Vertebrae
- b. Femur
- c. Atlas
- d. Digits

Structure Number 15:

- a. Carpus
- b. Tibiotarsus
- c. Tarsometatarsus
- d. Radius

Structure Number 16:

- a. Stigma
- b. Furcula
- c. Infundibulum
- d. Ostium

Structure Number 17:

- a. Infundibulum
- b. Cloaca
- c. Uterus
- d. Stalk of Ovary

Structure Number 18:

- a. Cloaca
- b. Stigma
- c. Vagina
- d. Rudimentary right oviduct

Structure Number 19:

- a. Small Ova
- b. Mature Ovum
- c. Ostium
- d. Stalk of ovary

Structure Number 20:

- a. Stalk of ovary
- b. Infundibulum

- c. Pleurapophysis of seventh vertebra
- d. Cloaca

Structure Number 21:

- a. Backbone
- b. Tail Vertebrae

- c. Pelvic Bone
- d. Vertebral Plate

Structure Number 22:

- a. Upper Arm
- b. Upper Leg

- c. Lower Leg
- d. Lower Arm

Structure Number 23:

- a. Upper Arm
- b. Upper Leg

- c. Lower Leg
- d. Lower Arm

Structure Number 24:

- a. Vertebral Plate
- b. Shoulder Girdle

- c. Pygostyle
- d. Tarsometatarsus

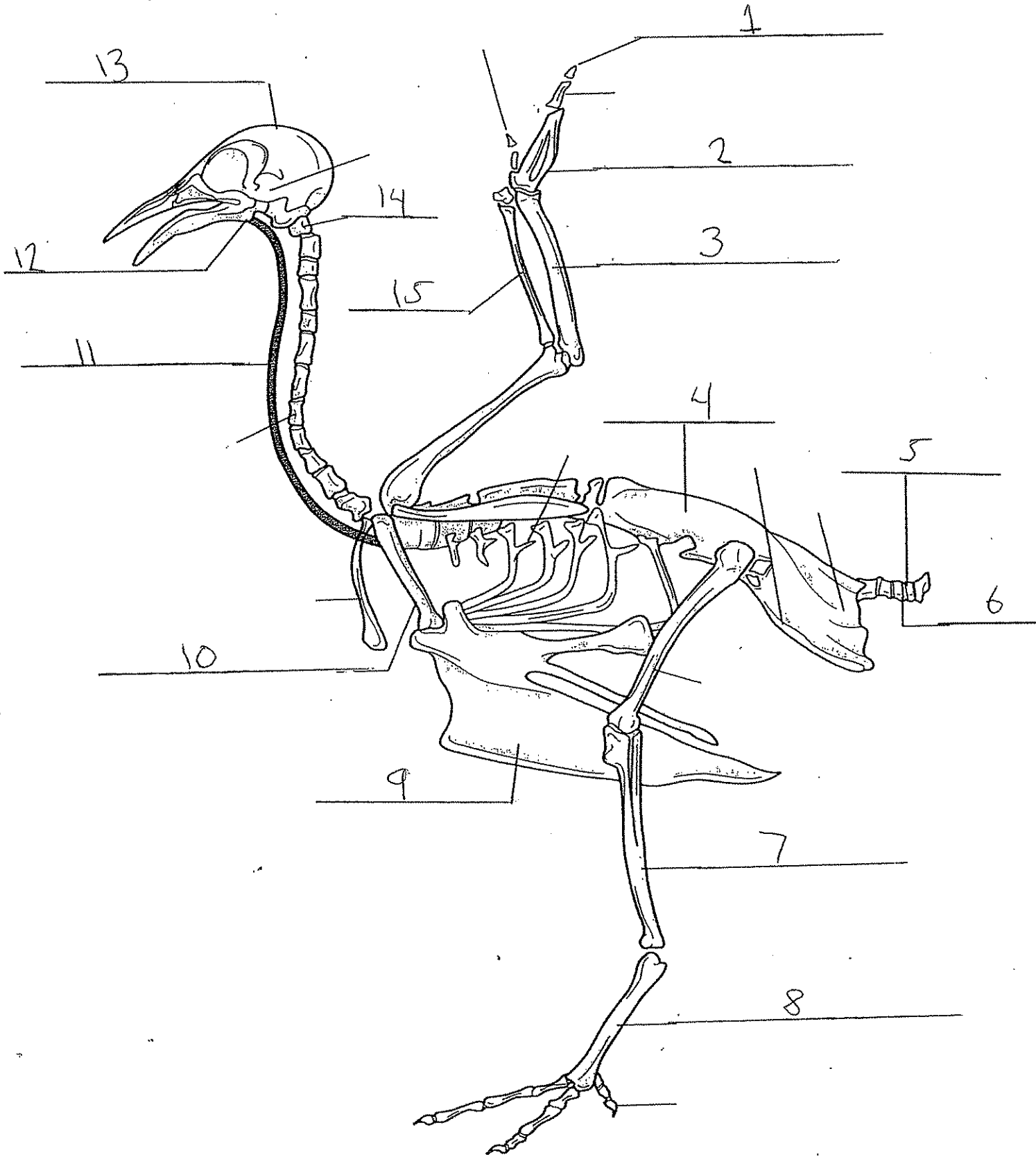
Structure Number 25:

- a. Neck Vertebrae
- b. Shoulder Girdle

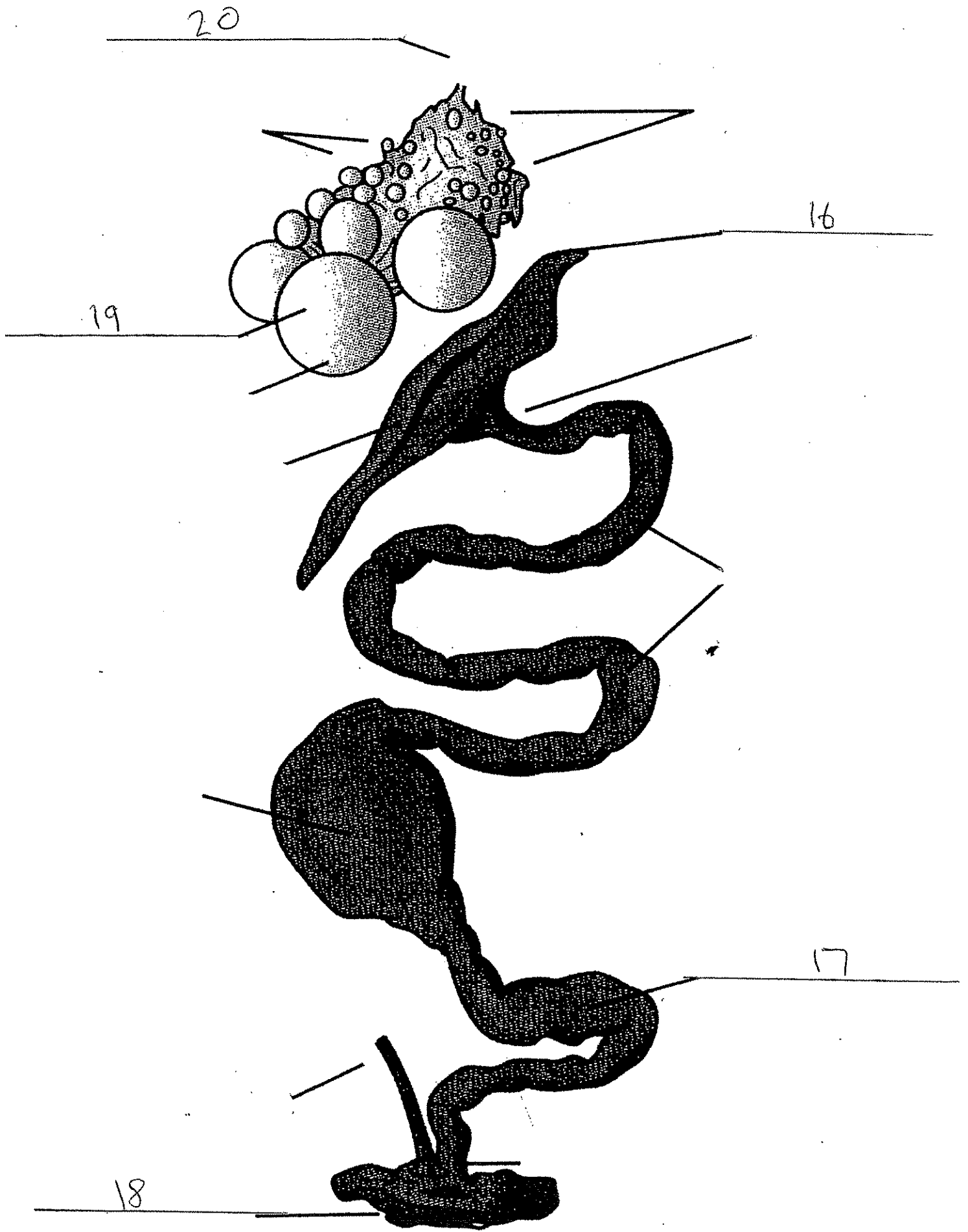
- c. Uncinate process
- d. Vertebral Plate

2012 ND State FFA Small Animal Care
Anatomy 50pts

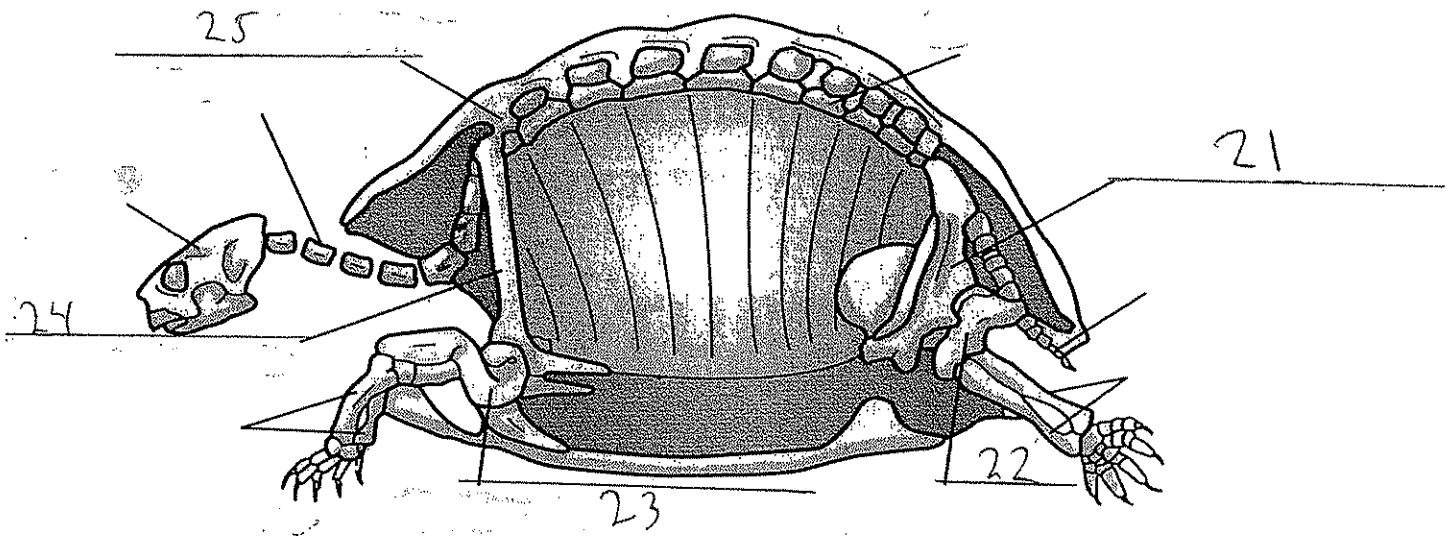
Identify the Skeletal Parts of a Bird.



Identify the parts of the Ovaries and Oviduct system of a female bird.



Identify the parts of a turtle's skeleton.



2012 SAC Anatomy Key

1. A
2. A
3. C
4. B
5. B
6. A
7. A
8. D
9. B
10. A
11. A
12. B
13. B
14. C
15. D
16. C
17. C
18. A
19. B
20. A
21. C
22. B
23. A
24. B
25. D