



Companion Animal Science Exam

2025 SMSU Ag Bowl Scholarship Invitational

Please use your **pencil** to fill in each correct answer in the Exam section on your scantron. Make sure all **bubbles are filled neatly and completely** so you are able to get credit for your answers.

HORTICULTURE
CDE# 105482
Non-Name
This sheet is for demonstration and practice only. You must use a real scan sheet for actual competition.

Exam

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

1. The primary gas resulting from fish and food waste in an aquarium is?
 - a. Ammonia
 - b. Oxygen
 - c. Carbon Dioxide
 - d. Hydrogen
2. A surge in what hormone causes ovulation?
 - a. Prostaglandin
 - b. Progesterone
 - c. Luteinizing hormone
 - d. Corpus luteum
3. This amino acid is required in the diet of cats, but not dogs.
 - a. Lysine
 - b. Proline
 - c. Alanine
 - d. Taurine
4. These internal parasites of birds are also known as threadworms.
 - a. Chlamydia
 - b. Capillaria
 - c. Toxocara
 - d. Ancylostoma

5. What is true about a taper needle?
 - a. it cannot be used for delicate tissue
 - b. there are typically 2-3 sharp edges
 - c. it pierces, not cuts, through tissue
 - d. it doesn't come in swaged form

6. Where does oxygen exchange in the gills of a fish?
 - a. Alveoli
 - b. Air Sacs
 - c. Lamella
 - d. None of the above

7. What connects one bone to another bone?
 - a. Tendons
 - b. Cartilage
 - c. Ligaments
 - d. All the above

8. The top layer of skin is called the...?
 - a. Sebaceous
 - b. Epidermis
 - c. Dermis
 - d. Subcutaneous

9. What is the average temperature of a rabbit?
 - a. 88-90F
 - b. 97-98F
 - c. 90-92F
 - d. 99-102F

10. What is the name of the receptors located in a cat's mouth, which is used to pick up odor from the air?
 - a. Jacobson's organ
 - b. Tonsils
 - c. Phalanges
 - d. Williamson organ

11. What is another name for the wishbone in birds?
 - a. Furcula
 - b. Sternum
 - c. Ulna
 - d. Radius

12. Vocal sounds of a cat are produced by ...?
 - a. Air expanding the larynx
 - b. Contracting the diaphragm
 - c. Vibrating the uvula
 - d. Changes in tension of muscles

13. What is the name of the paired fins that are located on the sides of the fish, just behind the head?
- Pectoral
 - Caudal
 - Pelvic
 - Dorsal
14. Which nutrient is amino acid associated with?
- Carbohydrates
 - Protein
 - Fats
 - Minerals
15. Canine brucellosis will cause dogs to exhibit all but which of the following symptoms?
- Abortion
 - Frothing at the mouth
 - Failure to whelp
 - Swollen testes
16. Mange is a disease caused by...?
- Mites
 - Mosquitoes
 - Ticks
 - Lice
17. Swelling of the thyroid gland is a sign of ...?
- Goiter
 - Pasteurellosis
 - Infectious canine hepatitis
 - Ulcer
18. This nutrient is important to help build and repair body tissues and organs.
- Carbohydrates
 - Protein
 - Lipids
 - Vitamins
19. Aeromonas and Pseudomonas are bacteria that cause infection in reptile?
- Digestive system
 - Skin
 - Nervous system
 - Circulatory system
20. This mineral is important in hemoglobin production.
- Calcium
 - Phosphorus
 - Potassium
 - Iron

21. Which of the following is not a fungal organism that causes ringworm in dogs?
- a. Microsporium canis
 - b. Microscorsporum gypsum
 - c. Microsporium eglaris
 - d. Trichophyton mentagrophytes
22. Anemia is a condition associated with deficiency.
- a. Chlorine
 - b. Phosphorus
 - c. Iron
 - d. Potassium
23. This insect bites the host animal and a small amount of its saliva enters the skin and causes an allergic reaction that causes severe itching.
- a. Lice
 - b. Mites
 - c. Fleas
 - d. Ticks
24. This parasite looks like spaghetti in the feces.
- a. Roundworm
 - b. Tapeworm
 - c. Whipworm
 - d. Hookworm
25. The basic unit of heredity is?
- a. Sperm
 - b. Genes
 - c. Ova
 - d. Mutation
26. This disease attacks the liver, kidneys, and gastrointestinal tract, causing a lot of pain and discomfort.
- a. Rabies
 - b. Leptospirosis
 - c. Canine Distemper
 - d. Bordetellosis
27. Which is not a vector borne disease?
- a. Blackleg
 - b. Heartworm Disease
 - c. Lyme Disease
 - d. Pinkeye

28. This cat disease produces an enzyme that allows it to insert copies of their own genetic material into that of the cells they have infected.
- Feline Leukemia
 - Toxoplasmosis
 - Rabies
 - Coronavirus
29. In birds the urinary and sexual openings are in the?
- Cloaca
 - Ceca
 - Collop
 - Copra
30. What hormone is responsible for maintaining pregnancy?
- Estrogen
 - Progesterone
 - Luteinizing
 - Oxytocin
31. Which of the following vitamins is important for successful reproduction?
- A
 - B
 - D
 - E
32. With fish, the release of eggs by females and fertilization with sperm released by the males?
- Gestation
 - Ovulation
 - Spawning
 - Fertilization
33. Which of the following is an example of an airborne disease?
- Parvo
 - Distemper
 - Bordetella
 - Hepatitis
34. The term parturition means.....?
- the birthing process
 - the length of pregnancy
 - the change in the length of daylight hours
 - the production of milk
35. Due to the ability of a cat to synthesize these vitamins, they are not required in a cat's diet.
- B and C
 - A and D
 - C and K
 - A and K

36. The genetic makeup of a cell, typically referencing a specific characteristic is known as....?
- Phenotype
 - Genotype
 - Mitosis
 - Geneticosis
37. What is an antigen?
- An antibiotic
 - A foreign molecule capable of stimulating an immune response
 - Large molecules within the intestinal tract
 - The body's defense against foreign material
38. Which nutrient is important for temperature regulation?
- Protein
 - Lipids
 - Carbohydrates
 - Water
39. According to the N.R.C. the average dog should have a diet that consists of% fat.
- 23
 - 25
 - 19
 - 21
40. What is the medical term for eardrum?
- Eustachian membrane
 - Descemet's membrane
 - Nictitating membrane
 - Tympanic membrane
41. Components of feed used to maintain animal body temperature are used when animals are exercised?
- Vitamins
 - Minerals
 - Carbohydrates
 - Water
42. Which is not accurate regarding added fiber?
- Helps with diarrhea
 - Causes increase in flatulence
 - Helps with constipation
 - Causes decrease in volume of feces
43. Which of the following is not a role of sodium?
- Nerve transmission
 - Fluid regulation
 - Acid-based balance
 - Hemoglobin

44. Ethylene glycol can cause severe damage to which organ?
- Liver
 - Kidney
 - Pancreas
 - Ovary
45. The following supplement provides the most usable calcium in a dog's diet?
- Yeast
 - Milk
 - Bone Meal
 - Cod Liver Oil
46. To properly apply a splint for a radial/ulnar fracture in a dog, which joints must be immobilized to provide fracture stability?
- Carpus and elbow
 - Shoulder and elbow
 - Metacarpus and elbow
 - Tarsus and elbow
47. When clipping the nails of an animal, it is important to avoid cutting the ...?
- Nail
 - Cuticle
 - Quick
 - Short
48. What establishes the basic rhythm of the mammalian heart, also known as the pacemaker?
- Papillary muscles
 - Bundle of His
 - Atrioventricular node
 - Sinoatrial node
49. What is produced in the medulla of the adrenal gland?
- Aldosterone
 - Epinephrine
 - Insulin
 - Cortisol
50. What percent of kittens will be orange in color if you cross a tomcat that is BB with a queen that is Bb? (B=black and b=orange)
- 0%
 - 25%
 - 50%
 - 100%



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Written Exam Answers

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