



# VETERINARY TECHNICIAN EXAM ANSWER KEY

## HUMANE ALLIANCE VETERINARY TECHNICIAN EXAM ANSWER KEY

1. What happens if you give Morphine IV? **Depressed respiratory function (bronchoconstriction has been noted in dogs)**
2. How do you counteract this? **Naloxone**
3. Why is the maximum percentage of Isoflurane for cats 2%? **To avoid laryngospasm**
4. What is the desired stage and plane of anesthesia for a spay? Explain this stage and plane. **Stage III, plane II (pain response absent, amnesia and analgesia in effect)**
5. Why is Acepromazine contraindicated in Boxers? **Very sensitive to bradycardic effects**
6. What do we give instead? **Morphine**
7. What happens to the Isoflurane when you push the flush valve on the anesthesia machine? **Dilutes the concentration of iso and oxygen**
8. At what cm of H<sub>2</sub>O is the high pressure alarm set on the anesthesia machine? **20 cm**
9. How do you reconstitute cat Telazol? **5cc sterile H<sub>2</sub>O**
10. How do you reconstitute dog Telazol? **5cc sterile H<sub>2</sub>O**
11. What can happen to a patient if the pop off valve is closed? **Life-threatening pressure build-up in lungs (up to and including rupture)**
12. What is the most painful part of a spay? **Breaking suspensory ligament**
13. In a pediatric cryptorchid– where do you first palpate for testicles? Why? **Inguinal area (because this is the path the testicle travels on its way to the scrotum)**
14. What can happen if you over-inflate the ET tube cuff? **Trauma to the tracheal mucosa**
15. What happens if you induce a cat SQ? **Takes a long time for it to go to sleep and may require more drugs**
16. Where is the heart located, when giving an IC injection for fetal kittens/puppies? **Under elbow, left side**
17. Give the order of rate of distribution for injections– quickest to slowest. **IC, IT, IV, IM, SQ**

1. During what stage of anesthesia is reflex vomiting likely to occur? **Stage II**
2. How much Epinephrine would you give to a 15 lb. puppy in cardiac arrest? A 3 lb. kitten? **Puppy - 0.75ml IV/2 ml IT. Kitten - 0.10ml IV/0.30 ml IT**
3. What nerve must you be aware of when giving an IM injection in the hind leg? **Sciatic**
4. How long do the analgesic effects of Buprenorphine last? **8 - 12 hours**
5. Can a patient who has been given Meloxicam receive Solu Delta Cortef? Dexamethasone? **No - no steroids or NSAIDS can be given with Meloxicam or vice-versa**



# VETERINARY ASSISTANT EXAM ANSWER KEY

## HUMANE ALLIANCE VETERINARY ASSISTANT EXAM ANSWER KEY

### CLIENT EDUCATION

1. Why are the following bad candidates for surgery?
  - Obese female **Tissue is more friable, more likely to bleed, more anesthetic risk**
  - URI **Moderate to severe URI can cause respiratory compromise**
2. What are the possible complications associated with spaying a pregnant animal? A female in heat?  
**Pregnant - fluid volume loss. Pregnant AND in heat - higher rate of bleeding complications for both**
3. What is the potential threat of putting an animal under anesthesia that has eaten the morning of surgery? **Aspiration after vomiting.**
4. Is it acceptable for a puppy/ kitten (2-3 mos old) to have eaten the morning of surgery? Why? **Yes - they do not have to be fasted due to their increased metabolism**
5. What would you tell an owner to look for when concerned about vaccine reactions? **Mild - fever, lethargy, inappetance. Moderate - urticaria (hives). Severe - anaphylaxis.**
6. Why do we require pre-anesthetic bloodwork for patients 8 years old and older? **To evaluate the patient's liver and kidneys**

### PREPPING

7. Why do we use eye lube? **Because patients under our anesthesia protocol lose their blink response**
8. What nerve must be avoided in the hind leg when administering an IM injection? **Sciatic**
9. Where is it located? What is the potential consequence of hitting it? **Located in the intermuscular groove between two muscle bellies on the caudolateral aspect of the rear leg. Can cause damage to the nerve (neuropathy).**
10. Why do we aspirate with EVERY injection? **To ensure we are not in a blood vessel**
11. What do you do if you aspirate and see blood? Why? **Stop - so the drug is not administered IV.**
12. What do you do if you accidentally inject morphine IV? What drug could the doctors request? **Notify the doctor, monitor, respiration, support. Could request Naloxone.**

13. Describe the appropriate area to be shaved for a spay? Neuter? Cryptorchid? **Spay - 2" above umbilicus to pubic symphysis and laterally to avoid hair contamination (rectangle). Neuter - scrotal - over testicles to allow for no hair contamination. Neuter - pre-scrotal - cranial area of scrotum up to 2-3" cranial to incision site and laterally to avoid hair contamination. Cryptorchid - inguinal area sufficient to avoid hair contamination.**
14. What special prepping procedures are performed for cryptorchid surgeries? What do you use? Why do we do it? **If abdominal - express bladder, flush prepuce with dilute chlorhex solution - to avoid contamination of surgery site.**
15. Where is the male cat tattoo located? Why? **Near umbilicus, where we would make incision in female - we do it to identify them as ABN since most common mistake is thinking a neutered male is a female.**
16. When does the first surgical scrub begin? **When the patient is clean**
17. Describe the appropriate technique used in surgical scrubbing. Why scrub in this manner? **Begin at the incision site and work your way out in circular fashion ("target") to avoid contamination from going to outer edges and dragging back across sterile area**
18. Why should you not retrace an area that has been scrubbed? **To avoid contamination from going to outer edges and dragging back across sterile area**
19. What can happen if a dirty animal is sent into surgery? **Infection**
20. How is an ideal catheter size chosen? Do you have to scrub the area before attempting to place the catheter? What is the possible consequence of placing a catheter close to the elbow? **Choose size based on the size of the vein and how fast you want the fluids delivered. Yes, you have to scrub the area first. Too close to elbow may cause the delivery of fluids to be dependent on leg position.**
21. What does patent mean? How can you tell if a catheter is patent? How can you tell if a catheter is not patent? **Patent = open. Catheter is patent if it flushes easily.**

22. How do you make flush? What does flush do? **Flush = fluid with a hub of Heparin mixed in. Prevents catheter from clotting.**
23. What kind of fluids are given? At what rate are fluids given (trick question)? **Typically LRS, according to the doctor's order**
24. True/False: Techs/Assistants are allowed to administer PPG to a patient without asking a doctor first.  
Why? **False - No drug is administered without a doctor's order**
25. Why do we express bladders in females? When would it be ok to NOT express a bladder? **We express them to decrease risk of accidental puncture during surgery. OK not to with males, unless it's a cryptorchid.**

## INTUBATION

26. How do you choose the correct tube size? **Can use chart as a guide, but based on individual patient and size of trachea**
27. How far should the tube be placed into the trachea? **Just past the thoracic inlet, but not past bifurcation**
28. What happens if the tube is placed too far into the trachea? **Can intubate one bronchus and cause respiratory compromise**
29. How much air do you put into the cuff of the tube? **Not more than 3cc in average patient - less in smaller patients**
30. How can you tell if the tube is placed correctly? **Patient can breathe normally through the tube and lungs are inflating normally.**
31. When the tube is placed correctly, the patient will not be able to vocalize. Why? **The tube passes through the vocal cords**
32. What may happen if you over inflate the cuff of the tube? **Trauma to the tracheal mucosa**

33. Why do we ensure that the tube does not rotate within the trachea while “flipping” the patient onto the v-tray? **Can cause tracheal trauma**
34. Why are cuffless tubes used for cats? **Decrease the risk of trauma to trachea**

## **ANESTHESIA**

35. Describe the location of the flush valve and the pop off valve on each machine. **Flush valve is near the oxygen regulator, pop off valve is near the exhaust side above the reservoir bag**
36. What does the flush valve do? When would you use it? **Pulls fresh oxygen into the system. Would use to provide a higher concentration of oxygen - can “lighten” the patient’s depth of anesthesia as well.**
37. Describe correct bag size. Why is it important? **Bag size is chosen based on patient weight (approx. 30ml/pound). Should attempt to approximate the patient’s lung capacity.**
38. What does the pop off valve do? When would you use it? **Closes the system to allow you to give the patient a breath - use in an emergency.**
39. Trace oxygen flow through the anesthesia machine and explain at each step eg: flush valve, flow meter, vaporizer, hose, bag, and soda sorb. **Oxygen tank, flow meter, vaporizer, hose, patient circuit, scavenger**
40. Will your patient receive isoflurane if the oxygen is not on? Why? **No - oxygen passes through the vaporizer to pick up iso.**
41. What is the percentage of Isoflurane used to maintain a dog? Cat? **Dog - 2%. Cat - 0.5%.**
42. What is the potential complication of giving acepromazine to boxers? **Bradycardia**
43. What is the potential threat for a feline patient that is not intubated and maintained on 5% isoflurane? **Laryngospasm proceeding to respiratory distress to death.**
44. What is the induction agent used? **Telazol**
45. What is the premed used for? What is used in cats? Dogs? How long does it last? **Used for sedation. Cats - dilute Ace. Dogs - Ace. Lasts 2-3 hours.**

46. How can you assess depth of anesthesia? (awake, appropriate for sx, too deep) **Eye position, blink response, response to painful stimuli**
47. Why do we use rice bags to keep patients warm? (physiological reason) **Reduces risk of hypothermia and subsequent infection.**
48. How do patients get cold? (list three ways) **Anesthesia, too wide clip, too much wetting of fur, lack of blanket, lack of heat source, younger at greater risk**
49. What should be done if a rice bag has urine, blood or fecal material on the outside? **Throw it away**
50. When is it ok to leave an anesthetized patient? **Never**

### EMERGENCY SITUATIONS

51. What do you do if your patient:
- Is not breathing? **Call the doctor - breath for it**
  - Has NO heart rate? **Call the doctor - check breathing**
  - Has a low heart rate? **Notify doctor - verify rate**
  - Vomiting? **Notify doctor - hold upside down and clear airway**
52. What drugs can be used for:
- Low heart rate? **Atropine, Glycopyrrolate**
  - Allergic reaction? **Diphenhydramine (Benadryl), Epinephrine**
  - No heart rate? **Epinephrine**
  - Shock? **Fluid bolus, Solu-Delta-Cortef (consult with doctor re Meloxicam)**
53. How can you tell if your patient is breathing? **Chest rise/fall, condensation appears in ET tube, feel breathing in tube, bag movement, etc.**
54. Name three places to palpate for a pulse. **Heart, femoral, lingual, carpus, rectal, etc.**
55. Where is the epinephrine kept? **Refrigerator**
56. Describe the procedure for bagging an animal. **Close pop off, fill bag, evacuate bag to appropriate cm of H<sub>2</sub>O pressure based on patient size, release, open pop off**

57. What type of drugs can interact with Meloxicam? Name two present in the clinic. **Steroids, NSAIDS.**

**Present in clinic - Dexamethasone, Solu-Delta-Cortef**

58. What drugs can be given IT? **Valium, oxygen, lidocane, atropine, naloxone, epinephrine**

59. What do the following stand for: SC, IC, IT, IM, IV, IP **Subcutaneous, Intracardiac, Intratracheal, Intramuscular, Intravenous, Intraperitoneal**

60. Why may a very high heart rate (eg. 170 bpm in an 80 lb dog) be a cause for concern? **Because the heart does not have enough time to appropriately fill and perfuse the tissues of the body**

### **PACKS**

61. What does the sonicator do? How long should it be run? What liquid cleaner is used in the sonicator?

**Sonicator breaks down the microscopic debris. Should be run 10-15 minutes. Uses ultrasonic cleanser (enzyme cleaner)**

62. How long should masks/muzzles be soaked? **10 minutes**

63. Is tape a sterile barrier? **No**

64. What do you do if a pack wrap has a hole in it? **Throw it away**

65. What do you do if a towel has a hole in it? **Throw it away or use it as a rag**

66. Does the steri-strip mean the pack is sterile? **No - only that the autoclave hit the specific temperature - not that it stayed there for the appropriate length of time**

67. How long must the packs be run in the autoclave to be considered sterile? At what temperature? **250°F for 30 minutes**

68. Why should you eliminate hair, fuzz and blood from a pack? **It may fall into the incision and create a foreign body**

69. What three items should be listed on a "special" pack that will not be used immediately? **Contents, date, initials**

70. Why is it a bad idea to place a wet pack on a table? **Microorganisms can penetrate through the surface (wick)**

71. What does the red pointer on the autoclave tell us? **Temp the autoclave reached - not how long it stayed there**
72. What is the proper course of action if the autoclave “doesn't work”? **Check fluid level, re-wrap and re-run - if not working, then go through the troubleshoot list**
73. Is placing a “dummy” pack in the autoclave acceptable? **No**
74. How often should the specialty packs be rewrapped and autoclaved if not used? **Every three months**

### MISCELLEANEOUS

75. Describe a correctly sized blanket for a patient. **Head and rear can remain on it and covers them to provide warmth**
76. Why are we concerned about keeping each patient on his/her own blanket? **Decrease cross-contamination**
77. What disease do we test for in Dobermans? **Von Willebrand**
78. What is an acceptable clot time/BMBT? **Less than 2 minutes**
79. What does OHE stand for? **Ovariohysterectomy**
80. What is removed when a female is spayed? **Ovaries and uterus**
81. Why do we provide a scrotal wrap for prescrotals? **To help reduce swelling**
82. Describe the difference between a prescrotal and scrotal surgery. **Scrotal - incision over scrotum. Prescrotal - incision in front of scrotum**
83. What is the normal temperature range for a dog/cat? **100.5° - 102.5°**
84. Why do we ear tip feral cats? **For ID - to prevent future accidental anesthesia/surgery**
85. When expressing a cat's bladder you notice the urine is bloody. What could be the potential causes of this observation? **Infection, pressing too hard during evacuation, stones**
86. How often do we change out the ink paste? **Daily**
87. How many days can a bag of fluids be kept? **1-2 days**
88. How long can you use a bag of fluids for IV use? SC use? **IV - that day. SC - 2 days.**

89. What size needle should be used when administering SC fluids? **18G - 20G**

90. What must be done with the hoses, bags, masks and muzzles used on a FELV or FIV positive patient?

**Change out and soak**

91. How long must cages be soaked before cleaning? **10 minutes**

**VOCABULARY/ABBREVIATIONS**

Bradycardia **Low heart rate**

Tachycardia **High heart rate**

Brachycephalic **“Short snout” (eg Pekinese, Persian, etc.)**

BMBT **Buccal mucosal bleeding time**

Emesis/emetic **Vomiting**

URI **Upper respiratory infection**

UTI **Urinary tract infection**