

Technicians, can you score above 90% on this test?

Our trainees can.

1. On an x-ray machine, kVp controls the:
 - a) focal distance
 - b) quantity of the x-ray beam
 - c) strength of the x-ray beam
 - d) wavelength of the x-ray beam
 - e) number of electrons emitted
 2. Signs of canine distemper can include all **but**:
 - a) polyphagia
 - b) conjunctivitis
 - c) vomiting and diarrhea
 - d) lethargy
 - e) muscular twitches
 3. Canine parvovirus can affect cells in the:
 - a) lymph nodes
 - b) bone marrow
 - c) intestinal linings
 - d) all of the above
 - e) none of the above
 4. All of the following should be considered when treating an animal for demodex, **except**:
 - a) isolating the infected animal
 - b) dipping routinely with Amitraz
 - c) treating an immunosuppressive condition, if present
 - d) administering antibiotics for secondary bacterial infections
 - e) not breeding the animal to minimize its stress and to avoid passing the trait to future offspring
 5. A false negative heartworm test result, obtained by conducting a blood filter test, may be possible due to all of the following, **except**:
 - a) nocturnal periodicity of circulating microfilaria
 - b) an occult infection
 - c) larvae can not be found through a blood filter test
 - d) the adult heartworms are all the same sex
 - e) larvae are eliminated by heartworm preventatives
 6. If an animal is dehydrated the TP will be:
 - a) above normal
 - b) below normal
 - c) unchanged
 7. All **but** which of the following signs are representative of hypothyroidism?
 - a) weight gain
 - b) alopecia
 - c) lethargy
 - d) scaly skin
 - e) polyuria
 8. How can a cat become infected with *Dipylidium caninum*?
 - a) by ingesting proglottids (tapeworm segments)
 - b) by ingesting an infected adult flea
 - c) by ingesting an infected mouse
 - d) by ingesting infected soil
 - e) by ingesting an infected lizard
 9. What is the normal urine pH of dogs and cats?
 - a) <5
 - b) 3-5
 - c) 5-7
 - d) 6-10
 - e) >10
 10. When monitoring an animal under an anesthetic, the patient's anesthetic depth can be approximated by evaluating all **but** which of the following?
 - a) palpebral reflex
 - b) muscle tone
 - c) pupil size
 - d) anesthetic time
 - e) vital signs
- Now check your answers on the other side.
See if your score competes!**
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Answer Key and Sample Lesson

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Answer Key

- 1. C** In radiology, kVp stands for kilovoltage potential. The kVp is a technique factor that regulates the energy of the x-ray beam by setting the voltage differential within the x-ray tube. Thus, the kVp represents the quality or strength of the beam. It is determined by measuring the animal to approximate the tissue density that the beam will have to pass through. The greater the density, the greater the kVp.
- 2. A** Canine distemper can affect three body systems: respiratory, gastrointestinal, and nervous. Thus, signs associated with the infection of any of these systems may be seen. Conjunctivitis, coughing and sneezing could be seen with an upper respiratory infection; vomiting, diarrhea, dehydration, and general lethargy with the GI system; and seizures, twitches, tics, and paralysis with the nervous system. Ophthalmic disorders, enamel hypoplasia, and hardpad are also possible. Polyphagia, or increased appetite, is not directly related to any of these primary symptoms.
- 3. D** Canine parvovirus is shed in the stool and can affect multiple body systems, including the gastrointestinal system, bone marrow, and lymph nodes. It can also occasionally affect the heart. Common signs include profuse and bloody diarrhea, projectile vomiting, and dehydration. Because it can cause bone marrow suppression, low numbers of white blood cells (leukopenia) may occur.
- 4. A** Demodex is a skin mite that can lead to alopecia, pruritus, secondary bacterial infections, and self-trauma, presented either locally or as a generalized infection. Demodex is a common parasite, but generally only affects young dogs with an inherited immune disorder where they have trouble keeping the mite from proliferating and causing an infection. Thus, isolation is not necessary to prevent the spread of the mite, but refraining from breeding an animal with this inherited problem could help to keep their offspring from having it. Treatment usually involves using Mitaban dips and antibiotics.
- 5. B** An occult heartworm infection is one where adult heartworms are present, even if microfilaria, or the larval stage of the heartworms, are not found. A blood filter test is only used to determine if microfilaria are present. An occult test is used to test for adult worms.
- 6. A** When an animal is dehydrated they have a low level of water and/or electrolytes in their blood. Blood plasma is made up of water, electrolytes, and proteins. Thus, in a dehydrated state, the plasma is more concentrated, accounting for an increase in the total protein (TP) level.
- 7. E** Hypothyroidism is usually the result of thyroid gland destruction, causing low levels of thyroid hormones and a slow metabolism. Signs include skin problems, weight gain, and lethargy.
- 8. B** *Dipylidium caninum* is a tapeworm that enters the flea life cycle when flea larvae ingest the tapeworm eggs released by a proglottid (tapeworm segment). The flea larvae mature into infected adult fleas, which may then be ingested by a dog or cat to continue the tapeworm's lifecycle where it lives in the small intestine. Proglottids will later crawl out through the rectum or get passed in the stool. There are other types of tapeworms that can be carried by mice, rabbits, or other animals.
- 9. C** The pH indicates the level of acidity or alkalinity of urine, with 7 being neutral. A urine pH above 7 would mean that the urine is alkaline, an environment conducive to bacterial infections. Urine pH is largely affected by the animal's diet.
- 10. D** Vital signs and anesthetic depth must be continuously monitored during an anesthetic procedure. If vitals like respirations or heart rate increase, this may be an indicator of a light anesthetic level; too slow then too deep. Pupils should be constricted and responsive to light and there should be a slight palpebral reflex. Checking the jaw muscle tone is a good indicator of anesthetic depth: too tight means too light and too slack means too deep. The anesthetic time is not an indicator.

SCORE: _____

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