1. When trying to warm a hypothermic comatose animal, which type of heat source is not safe?

- a. Heated water blanket
- b. Forced air warming blanket
- c. Forced air dryer
- d. Electric Heating pad
- e. Incubator

2. When cooling a hyperthermic animal, you should actively cool the animal until the body temperature falls to the normal range.

- a. True
- b. False

3. A mammal has lost much of its hair coat due to mange or skin injuries. Which is the most important reason it should not be released until its fur has grown back?

- a. Lack of camouflage
- b. Loss of thermoregulation
- c. Risk of injury to the exposed skin
- d. Exposure to insect bites

4. *Most* mammals cool themselves through evaporative cooling by:

- a. Sweating
- b. Licking their legs
- c. Wetting themselves in water
- d. Panting

5. The process where glucose is split into a simpler compound is known as:

- a. Pyruvic Acid
- b. Glycolysis
- c. Krebs Cycle
- d. Cellular Respiration

6. Which statement is true when capturing an animal?

- a. Talk in a soothing voice to the animal to help reduce its stress.
- b. Nets should only be used with mammals and not birds.
- c. Commercial snares or rabies poles should be placed solely around the neck of the mammal.
- d. Cover the head with a towel to reduce visual stimuli to help reduce its stress.

7. Anabolism is defined as:

- a. The breakdown of molecules into simpler products
- b. The swelling around an injured area
- c. The sum of all chemical reactions involved in the synthesis of molecules
- d. A blood clot

8. One critical feature of mammalian respiration is:

- a. Air sacs
- b. Negative pressure
- c. They have no diaphragm

9. Avian respiration *differs* from that of mammals in that:

- a. Birds have no diaphragm
- b. Their respiratory system has negative pressure
- c. Is basically a system of passages and tubes ending in alveoli

10. 10% of blood is made up of dissolved substances and plasma proteins. Which of the following are plasma proteins? (Choose all that apply)

- a. Fibrinogen
- b. Thrombocytes
- c. Albumin
- d. Basophiles

11. When a fracture occurs (choose all that apply):

- a. Bone cells that have lost their blood supply become necrotic
- b. Collagen is secreted around each fractured end
- c. Inflammation occurs in the bone itself
- d. Blood from damaged vessels does not clot

12. Smooth muscle:

- a. Attaches muscles to the skeleton
- b. Lines various organs of the body
- c. Is the muscle of the heart
- d. Has striations

13. CO₂ is excreted in urine:

- a. True
- b. False

14. The urine filtration process occurs in:

- a. Liver
- b. Kidneys
- c. Spleen
- d. Duodenum

15. Mammalian herbivores:

- a. Possess a gizzard that grinds food
- b. Contain enzymes in their digestive system to break down cellulose
- c. Digest cellulose through fermentation
- d. Have canine and incisor teeth

16. When an animal arrives for treatment, you should:

- a. Offer the animal food and water in its cage.
- b. Immediately remove the animal from its cage and examine
- c. Visually examine the animal before handling
- d. Perform a full examination, then treat the more serious injuries

17. Considerations when assessing a suitable release area include (choose all that apply):

- a. Suitable shelter
- b. Close to human development
- c. Good food and water supply
- d. Release as far as possible from where the animal was rescued

18. Time of year, migratory habits and proximity to the capture location are not considerations when releasing an animal:

- a. True
- b. False

19. If migration has occurred while a bird is in captivity:

- a. It doesn't matter where you release the bird
- b. The bird should be released in the migration destination area
- c. The bird should be released where it was captured, regardless of migration

20. The first information to obtain when receiving an injured animal is what happened to it.

- a. True
- b. False

21. A person called asking what to do about a roadrunner that is nesting in the yew bush at her front door. It's winter and the temperature is ~30 F. What do you advise?

- a. Bring it in to the warmth
- b. Try not to disturb it
- c. Put some bread and seed out for it to eat
- d. Stay close to the nest to keep predators away

22. The primary question in wildlife rehabilitation triage is "Can this life be saved? "

- a. True
- b. False

23. The first action to take in the process of stabilization is to:

- a. Weigh the animal
- b. Hydrate the animal
- c. Warm the animal
- d. Provide appropriate food.

24. The absence of one hallux in a predatory bird is always a criterion for euthanasia?

- a. True
- b. False

25. Since water is hypotonic, it is dangerous to give a dehydrated animal water to drink.

- a. True
- b. False

26. The immunosuppressive effects of corticosteroids come from their ability to:

- a. Inhibit antibody formation
- b. Decrease the concentration of lymphocytes and eosinophils
- c. Suppress migration of neutrophils
- d. Inhibit phagocytosis
- e. All of the above

27. Juvenile hummingbirds should be released while adults are still present and can indicate the right time and routes of migration.

- a. True
- b. False

28. Adaptive behavior:

- a. cannot be inherited.
- b. improves reproductive success.
- c. includes fostering unrelated young.
- d. usually occurs via training.

29. Maximum number of birds housed together will depend on:

- a. Cage size
- b. Season
- c. Behavior of individual birds
- d. All the above

30. Thermoregulatory problems encountered in the restraint of wildlife is less difficult to prevent than those of domestic species

- a. True
- b. False

31. Which statement is false?

- a. Nets can be used on both birds and mammals
- b. Rehabilitators should work in pairs and one should have experience with the species being handled
- c. Unnecessary capture and handling of wildlife should not be done on hot ambient air temperatures.
- d. Capture and handling of diurnal animals should be done during the day when they're less active.

32. The animal's safety is the first priority for the rehabilitator

- a. True
- b. False

33. Which factor does not affect an enzyme's function?

- a. An increase in temperature
- b. Tissue's acidity
- c. Fermentation

34. The natural history and behavior of a species is not considered in the enclosure design.

- a. True
- b. False

35. Identifying the wildlife species can tell us what?

- a. potential diseases
- b. trophic category
- c. defense mechanism and natural behaviors
- d. permits required
- e. all the above

36. Which of the following should never be used to flush a fresh wound:

- a. Tap water
- b. 3% Hydrogen peroxide
- c. Sterile saline
- d. 0.05% Chlorhexidine

37. Which type of wound debridement is the least painful, but takes the longest amount of time:

- a. Autolytic
- b. Surgical
- c. Enzymatic
- d. Mechanical

38. Which type of wound should be closed by suturing?

- a. Abrasions
- b. Deep puncture wounds
- c. Fresh, clean lacerations
- d. Infected lacerations
- e. b.&c.

39. When assessing whether an animal's wound can be treated and can heal, which is most important:

- a. Is enough skin still present to cover the wound?
- b. Is there good blood supply to the area?
- c. Can the wound be closed with sutures?
- d. Is the wound infected?

40. When calculating the daily energy requirements of an Eastern box turtle, the taxonomic constant required is

- a. 10
- b. 49
- c. 78
- d. 129

41. Which of the following vitamins should a wildlife rehabilitator be careful not to overdose: (choose all that apply)

- a. Thiamine
- b. Vitamin C
- c. Vitamin D
- d. Vitamin E

42. The amino acids synthesized in an animal's own body are called essential amino acids.

- a. True
- b. False

43. The stomach capacity of a healthy 600g red-shouldered hawk is estimated to be:

- a. 10cc
- b. 20cc
- c. 30cc
- d. 45cc
- e. 60cc

44. A litter of 7 four month old orphan opossums that have been in rehabilitation for 6 weeks have been eating well and steadily gaining weight when it is noticed two of the orphans are lethargic and their legs seem painful. The most likely diagnosis is:

- a. Small bite wounds from playing with their littermates
- b. Bruising from climbing in the cage and falling
- c. Septicemia
- d. Nutritional deficiency

46. The first element given to a newly rescued, emaciated 780g red-tailed hawk should be:

- a. Pieces of chopped meat with no bones or hair
- b. Gavage tubing with an elemental diet for carnivores
- c. Gavage tubing with 50% elemental diet and 50% rehydration fluids
- d. Gavage tubing with rehydration fluids only

47. Cages that have been used to house raccoons should never be used for other mammals because of the risk of infection with the parasite larva, *Baylis ascaris*, but these cages can still be used for birds.

- a. True
- b. False

48. How many ml of enrofloxacin should be given SID orally to 1.5lb barred owl with an open compound fracture assuming a dose of 30mg/kg and a concentration of 50mg/ml?

- a. 0.9cc
- b. 0.04cc
- c. 0.4cc
- d. 0.2cc

49. What is the ratio to prepare 100ml of 5% dextrose using 50% dextrose?

- a. 5:10
- b. 1:10
- c. 1:9
- d. 5:50

50. Categories of antimicrobial drugs include:

- a. Bacteriophagic
- b. Bactericidal
- c. Bacteriostatic
- d. B and c only

Exam Key

1. When trying to warm a hypothermic comatose animal, which type of heat source is not safe?

Answer: heating pad – a comatose animal (or any animal that cannot move away from heat) can be burned by lying on a heating pad, even with a towel between the pad and the animal.

2. When cooling a hyperthermic animal, you should actively cool the animal until the body temperature falls to the normal range.

Answer: False – Stop cooling the animal at a few degrees above normal because the animal will continue to cool after active cooling has stopped and will become dangerously hypothermic if cooling continues for too long, making the situation worse.

3. Which is the most important reason a mammal that has lost much of its haircoat due to mange or injuries to the skin, should not be released until its fur has grown back?

Answer: Loss of thermoregulation

4. Most mammals cool themselves through evaporative cooling by:

Answer: Panting - This is particularly important to know when handling wild mammals in hot weather. Covering their head or restricting their ability to pant can cause them to become dangerously hyperthermic.

5. The process where glucose is split into a simpler compound is known as:

Answer: Glycolysis

6. Which statement is true when capturing an animal?

Answer: Cover the head with a towel to reduce visual stimuli as it has a calming effect.

7. Anabolism is defined as:

Answer: The sum of all chemical reactions involved in the synthesis of molecules

8. One critical feature of mammalian respiration is:

Answer: Negative pressure

9. Avian respiration differs from that of mammals in that:

Answer: Birds have no diaphragm

10. 10% of blood is made up of dissolved substances and plasma proteins. Which of the following are plasma proteins? Choose all that apply.

Answer: Fibrinogen and Albumin

11. When a fracture occurs (choose all that apply):

Answer: Bone cells that have lost their blood supply become necrotic, collagen is secreted around each fractured end, and Inflammation occurs in the bone itself

12. Smooth muscle:

Answer: Lines various organs of the body

13. CO₂ is excreted in urine:

Answer: False: CO₂ is expired during respiration

14. The filtration process occurs in:

Answer: Kidneys

15. Herbivores:

Answer: Digest cellulose through fermentation

16. When an animal arrives for treatment, you should:

Answer: Visually examine the animal before handling

17. Considerations when assessing a suitable release area include (choose all that apply):

Answer: Suitable shelter and good food and water supply

18. Time of year, migratory habits and proximity to the capture location are not considerations when releasing an animal:

Answer: False

19. If migration has occurred while a bird is in captivity:

Answer: The bird should be released in the migration destination area

20. The first information to obtain when receiving an injured animal is what happened to it.

Answer: False: The first information to obtain is the name and address of the rescuer.

21. A person called asking what to do about a roadrunner that is nesting in the yew bush at her front door. It's winter and the temperature is ~30 F. What do you advise?

Answer: Try not to disturb it

22. The primary question in wildlife rehabilitation triage is "Can this life be saved? "

Answer: False: The primary question is it probable that this animal can be returned to the wild?

23. The first action to take in the process of stabilization is to:

Answer: Warm the animal

24. The absence of one hallux in a predatory bird always a criterion for euthanasia?

Answer: False: Not all predatory birds are raptors

25. Since it is hypotonic, it is dangerous to give a dehydrated animal water to drink, if there are no proper hydrating fluids available.

Answer: False

26. The immunosuppressive effects of corticosteroids come from their ability to:

Answer: All of the above

27. Juvenile hummingbirds should be released while adults are still present and can indicate the right time and routes of migration.

Answer: False

28. Adaptive behavior

Answer: improves reproductive success.

29. Maximum number of birds housed together will depend on:

Answer: All the above

30. Thermoregulatory problems encountered in the restraint of wildlife is less difficult to prevent than those of domestic species

Answer: False

31. Which statement is false?

Answer: Capture and handling of diurnal animals should be done during the day when they're less active.

32. The animal's safety is the first priority for the rehabilitator

Answer: False

33. Which factor doesn't affect an enzyme's function ? **Answer:** Fermentation

34. The natural history and behavior of a species is not considered in the enclosure design.

Answer: False

35. Identifying the wildlife species, it can tell us:

Answer: all the above

36. Which of the following should never be used to flush a fresh wound:

Answer: 3% Hydrogen peroxide

37. Which type of wound debridement is the least painful, but takes the longest amount of time:

Answer: Autolytic

38. Which type of wound should be closed by suturing?

Answer: Fresh lacerations. Deep puncture wounds should be left open so they can drain and not develop an abscess.

39. When assessing whether an animal's wound can be treated and can heal, which is most important:

Answer: Is there good blood supply to the area. If there is not, the tissue will die and the wound cannot heal. This is most important when evaluating a wound on a wing or leg.

40. When calculating the daily energy requirements of an Eastern box turtle, the taxonomic constant required is:

Answer: 10

41. Which of the following vitamins should a wildlife rehabilitator be careful not to overdose:

Answer: Vitamin D.

42. The amino acids synthesized in an animal's own body are called essential amino acids.

Answer: False These are the non-essential amino acids. The essential amino acids are the ones their body does not make and need to be supplemented.

43. The stomach capacity of a 600g red-shouldered hawk is estimated to be: Answer: 30cc (0.6Kg X .05 = 0.03 liters or 30cc)

45. A litter of 7 four month old orphan opossums that have been in rehabilitation for 6 weeks have been eating well and steadily gaining weight when it is noticed two of the orphans are lethargic and their legs seem painful. The most likely diagnosis is:

Answer: Nutritional Deficiency

46. The first nutrition for a newly rescued, emaciated 780g red-tailed hawk should be:

Answer: Rehydration fluids only

47. Cages that have been used to house raccoons should never be used for other mammals because of the risk of infection with the parasite larva, *Baylis ascaris*, but these cages can still be used for birds.

Answer: False. Birds can be infected with Baylis ascaris too.

48. How many ml of enrofloxacin should be given SID orally to 1.5lb barred owl with an open compound fracture assuming a dose of 30mg/kg and a concentration of 50mg/ml?

Answer: c. 0.4cc

1.5lbs / 2.2 = (0.68Kg x 30mg/kg) / 50mg/ml = 0.4cc

49. What is the ratio to prepare 100ml of 5% dextrose using 50% dextrose and sterile water?

5 / 50 = x / 100 50x = 500 x = 10ml 100-10=90ml 10ml:90ml = 1:9

Answer: c. 1:9

50. Categories of antimicrobial drugs include:

Answer: B and c only