

## 2019 MN FFA Fish & Wildlife Management CDE Exam

Please record your answers for the exam on the exam section of your scantron.

### Entomology

1. Which of the following is associated with dead animals?
  - A) assassin bug
  - B) boxelder bug
  - C) blow fly
  - D) woods cockroach
2. Stoneflies are associated with what type of habitat?
  - A) hardwood forests
  - B) prairies
  - C) rocky outcroppings
  - D) streams and rivers
3. Which of the following insects has piercing-sucking mouthparts?
  - A) aphids
  - B) crane fly
  - C) lady beetle
  - D) monarch
4. What is an example of an insect that belongs to the order Coleoptera?
  - A) katydid
  - B) long-horned beetle
  - C) sphecid wasp
  - D) sphinx moth
5. Where do carpenter ants nest?
  - A) in the soil
  - B) rotting wood
  - C) under stones
  - D) all of the above are correct
6. As a larva, I often feed on aphids; as an adult, I visit flowers and am colored like a wasp or a bee. What am I?
  - A) cicada
  - B) common sawfly
  - C) house fly
  - D) syrphid fly
7. If you see an insect that has chewing mouthparts, four wings with many veins that are held roof-like over their body, what have you encountered?
  - A) dragonfly
  - B) lacewing
  - C) stink bug
  - D) weevil

8. Which of the following insects has an incomplete life cycle?

- A) crane fly
- B) honey bee
- C) red admiral
- D) water strider

9. Stink bugs have well developed \_\_\_\_\_.

- A) antennae
- B) wings
- C) legs
- D) scent glands

## **Mammals**

10. Which animal's teeth are best described as large canines for grabbing and killing prey and flat molars for grinding plants?

- A. Coyote
- B. Showshoe hare
- C. Moose
- D. Black bear

11. Increasing temperatures in northern Minnesota are of concern for the health of which animal's population?

- A. Coyote
- B. Gray squirrel
- C. White-tailed deer
- D. Moose

12. Which of the following lists of mammals are all rodents?

- A. Badger, opossum, striped skunk
- A. Deer mouse, pocket gopher, Norway rat
- B. Norway rat, otter, woodchuck
- C. Woodchuck, jackrabbit, muskrat

13. Which mammal is known for gathering in herds in the winter, trampling down the snow in an area?

- A. Meadow vole
- B. Black bear
- C. White-tailed deer
- D. Otter

14. What best describes the diet of a Mole?

- A. Herbivore
- B. Omnivore
- C. Insectivore
- D. Carnivore

15. Which of these animals currently has the widest distribution in Minnesota?

- A. Gray fox
- A. Moose
- B. Moose
- C. Fox squirrel

16. What best describes the diet of a red fox?
- A. Herbivore
  - B. Omnivore
  - C. Insectivore
  - D. Carnivore
17. Which of these animals is the largest carnivore typically found in Minnesota?
- A. Weasel
  - B. Porcupine
  - C. Spotted Skunk
  - D. Otter
18. This rodent has a long tail, and long back legs that allow them jump like a kangaroo?
- A. Beaver
  - B. Jumping mouse
  - C. Jack rabbit
  - D. Gray squirrel

## **Birds**

19. Which of these birds was reintroduced into Minnesota?
- A. Wild Turkey
  - B. Wilson's Snipe
  - C. Ruffed Grouse
  - D. Sharp-shinned Hawk
20. Where are sharp-tailed grouse found in Minnesota?
- A. The Twin Cities Area
  - B. The northern edge of the state
  - C. The southwest corner of the state
  - D. The southeast corner of the state
21. What best describes a Hungarian partridge's method of hunting.
- A. Circles high in the sky and dives into a lake to catch fish.
  - B. Wades along the edge of a lake grabbing fish and frogs.
  - C. Sits in a tree waiting to pounce on mice.
  - D. Hungarian partridge are seed eaters.
22. Populations of this bird have increased to the point where they are doing extensive damage to their nesting grounds in the arctic?
- A. Starlings
  - B. Grackle
  - C. Snow geese
  - D. Both A and B
23. What best describes a screech owl's nest?
- A. A loose grouping of sticks in high branches.
  - B. A hole in a tree.
  - C. A hole in the bank of a river.
  - D. A tightly woven nest of grasses.

24. Early morning displays of head first diving over marshland best describe the mating behavior of which bird?
- A. Red-winged Blackbird
  - B. Loon
  - C. Wilson's snipe
  - D. Woodcock
25. This duck can be identified by white markings on its bill?
- A. Ring-neck duck
  - B. Mallard
  - C. Scaup
  - D. Redhead
26. This raptor prefers a habitat of dense forest?
- A. Red-tailed hawk
  - B. American kestrel
  - C. Great blue heron
  - D. Broad-winged hawk
27. These birds will often nest in small colonies in very dense trees or shrubbery?
- A. Canvasback
  - B. Grackle
  - C. Woodcock
  - D. Barred Owl

## **Fish**

28. Smallmouth bass spawn in water temperature of ...
- A. 40 - 45 degrees F
  - B. 50 - 55 degrees F
  - C. 60 - 65 degrees F
  - D. 80 - 85 degrees F
29. This fish is a relative of the saltwater cod?
- A. Walleye
  - B. Burbot
  - C. Dogfish
  - D. Sturgeon
30. The feeding habits of this fish can muddy the waters of a lake?
- A. Carp
  - B. White Sucker
  - C. Sea Lamprey
  - D. Darter
31. Which of these fish are you most likely to find in the prairie region of southwestern Minnesota?
- A. Brook trout.
  - B. Lake trout.
  - C. Brown trout.
  - D. None of the above.

32. The state fishing record for this species of fish is over 54 pounds?

- A. Largemouth bass
- B. Gar
- C. Muskellunge
- D. Carp

33. This fish has big lips, no teeth and soft fins?

- A. White sucker
- B. Fathead minnow
- C. Sea lamprey
- D. Dogfish

34. Female lake sturgeon begin breeding when they are how old?

- A. 5-10 years old
- B. 10-15 years old
- C. 20-25 years old
- D. 40-50 years old

35. The tail fin of a fish is also called the \_\_\_\_\_?

- A. Adipose fin
- B. Barbel
- C. Caudel fin
- D. Lateral line

36. A sunfish needs to beware of which predator fish?

- A. Northern pike
- B. Rainbow trout
- C. Largemouth bass
- D. A and C

## **Reptiles and Amphibians**

37) This possession limit for this species is 3 with a minimum shell length of 12 inches?

- A) Painted Turtle
- B) Spiny Soft-shell Turtle
- C) Northern Map Turtle
- D) Snapping Turtle

38) This snake is known for "hooding" and playing dead when threatened?

- A) Bull Snake
- B) Timber Rattlesnake
- C) Eastern Hognose Snake
- D) Common Garter Snake

39) Which animal is not dependent on standing water for part of its life-cycle.

- A) Gray Tree Frog
- B) Tiger Salamander
- C) Canadian Toad
- D) Six-lined Racerunner

- 40) This frog gets its name from its distinctive call?  
A) Mink Frog  
B) Spring Peeper  
C) Green Frog  
D) Northern Leopard Frog
- 41) Prairie Skink are known for this unusual defense?  
A) Their tail can break-off and regrow  
B) They run across water  
C) They give off a "popcorn" like smell  
D) They change color
- 42) In Minnesota which toad is the most common?  
A) American Toad  
B) Canadian Toad  
C) Mudpuppy  
D) Great Plains Toad
- 43) The Timber Rattlesnake is restricted to what part of Minnesota?  
A) North Eastern Corner  
B) Far Western  
C) Area around Duluth  
D) South Eastern Corner
- 44) What best describes the habitat for a fox snake?  
A) Rocky cliffs  
B) Forest edge along a river  
C) Open Prairie  
D) Northern Pine Forest
- 45) MN residents under 18 may possess up to 25 turtles for what activity?  
A) Eating  
B) Pet Sales  
C) Turtle Races  
D) Photography Classes

(over)

**2019 MN FFA Fish & Wildlife Current Issue Exam  
Limnology/Water Quality (25 Questions @ 2 points each)**

**Please record your answers on the Exam 2/Team section of your scantron**

1. Most Minnesota lakes were created by:  
A. Sink holes  
B. Erosion  
C. Glaciers  
D. Earthquakes
2. Lake Superior is classified as what type of lake?

- A. Oligotrophic
  - B. Mesotrophic
  - C. Eutrophic
  - D. Hypertrophic
3. The euphotic zone of a lake is usually:
- A. the depth limit of visibility using a secchi disk
  - B. two to three times the limit of visibility using a secchi disk
  - C. only important when there is ice cover
  - D. the part of the lake that does not receive sunlight
4. Lakes “turn over” because:
- A. water density changes as water temperature changes
  - B. during the summer the surface gets warm
  - C. during the winter, ice forms on the surface
  - D. lakes do not “turnover” in Minnesota
5. A lake that does not turnover completely and has a layer of bottom water that is stagnant and anoxic for years at a time is called a:
- A. Dimictic lake
  - B. Monomictic lake
  - C. Polymictic lake
  - D. Meromictic lake
6. All of the land and water areas that drain toward a particular river or lake is called the:
- A. watershed
  - B. Tributary
  - C. Topography
  - D. Butter
7. Which land cover has the slowest stormwater discharge?
- A. Forest
  - B. Agricultural – Forest
  - C. Agricultural
  - D. Urban
8. Soft water lakes have low concentrations of the ions:
- A. Chlorine and sulfur
  - B. Calcium and magnesium
  - C. Potassium and Chlorine
  - D. Chlorine and calcium
9. The zone of a typical lake that is open water where light does not penetrate all the way to the bottom is called the:
- A. littoral zone
  - B. limnetic zone
  - C. euphotic zone
  - D. benthic zone

10. A common floating lake macrophyte is:
  - A. stonewort
  - B. coontail
  - C. duckweed
  - D. bladderwort
  
11. During the seasonal succession of phytoplankton in a lake, which would flourish first in April & May?
  - A. Green Algae
  - B. Blue-green algae
  - C. Diatoms
  - D. There is no order
  
12. A lake with low amount of nutrients and low plant growth is called
  - A. eutrophic
  - B. mesotrophic
  - C. paleotrophic
  - D. oligotrophic
  
13. Which water quality impact is associated with eutrophication
  - A. low amount of macrophyte growth
  - B. high dissolved oxygen
  - C. high water clarity
  - D. excessive organic matter production
  
14. When looking at ecoregion lake data, which lake classification has the lowest clarity based on the secchi disk?
  - A. Northern lakes and forests
  - B. North central hardwood forests
  - C. Western corn belt plains
  - D. Northern glaciated plains
  
15. An organism capable of eating plants is:
  - A. carnivorous
  - B. omnivorous
  - C. herbivorous
  - D. planktivorous
  
16. What number summarizes a lake's overall nutrient richness?
  - A. Chlorophyll-a
  - B. Total phosphorus
  - C. Transparency
  - D. Trophic state index
  
17. Which lake has the lowest trophic state index (37)?
  - A. Elysian
  - B. Mille Lacs
  - C. Pelican
  - D. Shetek



18. Which lake had the lowest phosphorus (parts per billion)  
A. Elysian  
B. Pelican  
C. Shetek
19. Which lake is the lowest water clarity (transparency)?  
A. Elysian  
B. Mille Lacs  
C. Pelican
20. Which lake has strict walleye regulations to maximize fishing opportunities while protecting the health and sustainability of the walleye population?  
A. Elysian  
B. Mille Lacs  
C. Pelican  
D. Shetek
21. Most of our lakes were formed about 12,000 years ago and have an average of \_\_\_\_\_ Meters of sediment in their deeper parts.  
A. 1  
B. 4  
C. 7  
D. 10
22. A lake completely lacking in dissolved oxygen is defined as being:  
A. Anoxic  
B. Aerobic  
C. Covalent  
D. Dimictic
23. What is an abiotic factor that influences the oxygen content lake water?  
A. Photosynthesis  
B. Respiration  
C. Temperature  
D. Algae blooms
24. A drainage lake is defined as a lake having a:  
A. defined surface inlet and outlet.  
B. large watershed  
C. tile running into it  
D. large volume of water
25. What would be considered a nonpoint source of pollution to a lake watershed?  
A. a feedlot  
B. a tile line  
C. a boat motor  
D. acid rain

## 2019 MN FFA Fish & Wildlife Current Issue Exam Key

1. C
2. D
3. A
4. B
5. B
6. D
7. B
8. D
9. D
10. D
11. D
12. A
13. C
14. C
15. A
16. B
17. D
18. B
19. A
20. B
21. D
22. C
23. B
24. C
25. A
26. D
27. B
28. C
29. B
30. A
31. C
32. C
33. A
34. C
35. C
36. D
37. D

38. C
39. D
40. B
41. A
42. A
43. D
44. B
45. C

### Current Issues

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