

2018 University of MN Winter Invitational Fish & Wildlife Management 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)

2018 Fall Invite Fish & Wildlife Current Issue
Limnology/Water Quality (20 Questions @ 2 points each)

Please record your answers on the Assessment and Solution 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 fastest stormwater discharge?
 - A. Forest
 - B. Agricultural – Forest
 - C. Agricultural
 - D. Urban

8. Hardwater lakes have high concentrations of the ions of:
 - A. Chlorine and sulfur
 - B. Calcium and magnesium
 - C. Potassium and Chlorine
 - D. Chlorine and calcium

9. The zone of a typical lake near the shore area where sunlight penetrates all the way to the sediment is 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. Algal seasonal succession of phytoplankton in a lake would first have an abundance of:
 - A. Green Algae
 - B. Blue-green algae
 - C. Diatoms
 - D. There is no order

12. A lake with high amount of nutrients and high 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 is clearest based on 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, fungi, and animals 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 highest trophic state index (74)?
 - A. Elysian
 - B. Mille Lacs
 - C. Pelican
 - D. Shetek

18. Which lake had the highest phosphorus (parts per billion)
 - A. Elysian
 - B. Mille Lacs
 - C. Pelican
 - D. Shetek

19. Which lake is the best water clarity (transparency)?
 - A. Elysian
 - B. Mille Lacs
 - C. Pelican
 - D. Shetek

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

2018 U of MN Winter Invitational Fish & Wildlife Management 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. D
8. B
9. A
10. C
11. C
12. A
13. D
14. A
15. B
16. D
17. D
18. A
19. C
20. B