**2026 Iowa Envirothon State Forestry Exam** Team Name _____
Each Question is worth three points – 75 points possible

**1.** Find the plot center where the polka dot flagging is on the ground. Using a 10 factor prism what is the basal area?
   A. 14 square feet
   B. 140 square fee
   C. 200 square feet
   D. 70 square feet

**2.** Find the large tree with polka dot flagging tied around the trunk. What species is this tree?
   A. Red oak
   B. Green ash
   C. Black cherry
   D. Bitternut hickory

**3.** Find the large tree with pink flagging tied around the trunk. What species is this tree?
   A. Black cherry
   B. American elm
   C. American basswood
   D. Sycamore

**4.** What is the diameter at breast height (DBH) of the large tree with pink flagging tied around the trunk?
   A. 20 inches
   B. 15 inches
   C. 25 inches
   D. 30 inches

**5.** How many merchantable logs are in the large tree with pink flagging around the trunk?
   A. 2.5
   B. 3
   C. 1
   D. 2

**6.** Find the shrubs with pink flagging tied to it. What is the common name of this invasive species?
   A. Japanese barberry
   B. Common buckthorn
   C. Honeysuckle
   D. Autumn olive

**7.** Find the vine growing on a tree that has pink flagging tied to it. What species of vine is this?
   A. Poison ivy
   B. Round leaf bittersweet
   C. Virginia creeper
   D. Wild grape

**8.** Find the sapling with orange flagging tied to it that is located in the open areas. There are some seed pods from a mature tree of the same species next to it. What species is it?
   A. White mulberry
   B. Redbud
   C. Honey locust
   D. Kentucky coffee tree

**9.** Find the small tree located in the open area with orange flagging tied to it. What species is it?
   A. Red oak
   B. Bur oak
   C. Sugar maple
   D. Scrub oak

**10.** There are many dead and dying elm trees in this forest. What disease or pest likely killed them?
   A. Dutch elm disease
   B. Emerald ash borer
   C. Oak wilt
   D. Spongy moth

**11.** Find the shrubs along the forest edge with orange flagging to them. What is the common name of this native shrub?
   A. Buckthorn
   B. aronia berry
   C. Gray dogwood
   D. Buttonbush

**12.** The open prairie area has a few bur oak trees growing in it. Recently this area had prescribed burning conducted that killed some small tree seedlings growing among the grass. Is it true or false that the bur oak trees will also likely die due to the fire operations?
   A. True
   B. False

**13.** The prescribed fire conducted in the open area encroached into the forest edge. There are many honeysuckle shrubs that were top killed from the fire. Which of the following statements is true?

A. Burning the honeysuckle was detrimental to animals who rely on the cover the shrubs provide.
B. Honeysuckle is invasive but prescribed fire should never be conducted in forested areas.
C. Burning into the forest edge is okay to do one time but should never be repeated.
D. Top killing the honey suckle was beneficial to forest health. Burning in future seasons should be conducted to kill even more honeysuckle.

**14.** What is the phloem?

A. Layer of woody cells that transport products of photosynthesis from the leaves to the roots
B. Layer of woody cells that transport products of photosynthesis from the roots to the leaves.
C. Process that regulates CO2 and water transport
D. Process that consumes oxygen and sugar and makes CO2 and water as by-products

**15.** Which of these statements is FALSE?

A. Due to fire being taken out of the system, less fire adaptive species, such as maples and basswoods, have become more common in the landscape.
B. Adding native shrubs to a planting helps increase structural habitat for wildlife
C. Bottomland tree species tend to have shorter lifespans than oaks
D. Emerald ash borer is a native pest in the US

**16.** Which of these conifer species is native to Iowa?

A. Jack pine
B. Norway spruce
C. Eastern white pine
D. Ponderosa pine

**17.** What can cause a tree to become stressed?

A. Droughts
B. Disease and insects
C. Not receiving enough light due to competition of other vegetation
D. All of the above

**18.** Before pre-European settlement, 19% of the state was covered in forests. Roughly, how much of the state is covered in forest today?

A. 8%
B. 15%
C. 19%
D. 25%

**19.** What is the biggest benefit of riparian buffers?

A. Provides habitat for wildlife
B. Intercepts sediment and agricultural runoff before it gets into streams and rivers
C. Slows down soil erosion
D. None of the above

**20.** The living, outermost portion of a woody stem or branch is called what?

A. Heartwood
B. Stomata
C. Sapwood
D. Mycellium

**21.** How far away should you be from a tree when measuring merchantable logs with a Biltmore stick?

A. 100 feet
B. 66 feet
C. 55 feet
D. 60 feet

**22.** Which tree species can be identified by their flat individual needles that attach directly to the branches in a spiral pattern around the entire stem?

A. Pine
B. Spruce
C. Fir
D. Cedar

**23.** What is not an effective timber management harvest method for regenerating oaks?

A. Single tree selection harvest
B. Clearcut
C. Shelterwood
D. All of the above

**24.** Coyotes, turkey vultures, and foxes are classified in which trophic level in the food chain?

A. Primary consumers
B. Producers
C. Tertiary consumers
D. Secondary consumers

**25.** What is Iowa's state tree?

A. Hickory
B. Walnut
C. Oak
D. Cottonwood