2025 Iowa Envirothon Current Issue Exam Team_____

Each Question is worth three points – 75 points possible

1) How much land in the world is considered forest?
    a. Less than 20%
    b. About 30%
    c. More than 45%
    d. None of the above

2) Forests are of vital importance today because they provide all but which of the following ecosystem services?
    a. Fuel
    b. Fiber
    c. New plant species
    d. Carbon sequestration

3) Which of the following is an effect of recent climate change on forests?
    a. Decrease in wildfires
    b. Decrease in non-native species competition
    c. Increased disease pressure
    d. All of the above are effects

4) Which of the following is NOT considered a current stressor of the world's forests?
    a. Wildfires
    b. Increased precipitation
    c. Mechanization of forest management
    d. Drought

5) Globally, forests are shifting towards:
    a. Dense coniferous forests
    b. Shorter -lived trees species, shrubs, and herbaceous plants
    c. Open stands of long-lived deciduous forests
    d. Increased forest cover

6) In the carbon cycle, how is stored carbon released back into the environment?
    a. Transpiration by plants
    b. Photosynthesis
    c. Decomposition of plants and animals
    d. All of the above

7) The majority of forest disease pathogens are of what type?
    a. Fungi
    b. Bacterial infections
    c. Blight
    d. Insects

8) Forest pest control strategies may involve which of the following actions?
    a. Diversifying tree populations
    b. Removal of host plants
    c. Pruning or removal of diseased trees
    d. All of the above.

9) Which of the following is false about alien insects and diseases?
    a. Often referred to as “exotic” species
    b. Emerald Ash Borers and Dutch Elm Disease are examples
    c. Alien species could become invasive
    d. Usually do not spread beyond their native range

10) Which of the following is not considered a destructive “exotic” invasive insect in Canadian forests?
    a. Japanese beetle
    b. Brown Spruce Longhorn beetle
    c. Mountain Pine beetle
    d. Emerald Ash Borer

11) High intensity forest fires have which of the following effects on forest ecosystems?
    a. Scorched soils are ideal for germinating conifer seeds
    b. Ash covered soils are less prone to erosion
    c. Wildlife corridors are disconnected
    d. All of the above are effects

12) Which of the following is NOT a benefit of low intensity forest fires?
    a. Newly opened areas allow sunlight to reach the forest floor
    b. Ash from burnt plant materials enrich the soil
    c. Grasses and low shrubs quickly replace tree cover
    d. Seeds germinate faster following heat treatment

13) Which of the following is true about Canada’s Boreal Forests?
    a. Over ½ of the world’s Boreal Forests are located in Canada.
    b. The climate of Boreal Forests is short, cold, wet winters and long dry summers
    c. Trees species are mostly pine, spruce, fir, and tamarack coniferous trees
    d. All of the above are true

14) Which is NOT a true statement about Boreal Wetlands in Canada?
    a. Act as a water filter
    b. Are made up mostly of peat soils
    c. Supports nearly ½ of the North American duck population
    d. All of the above are true.

15) Another name for a Boreal Forest biome is:
    a. Permafrost
    b. Taiga
    c. Forest tundra
    d. Temperate Snow Forest

16) Which is true about average weather patterns in the US?
    a. Extreme conditions are becoming less common.
    b. Precipitation has decreased in the lower 48 states
    c. Heat waves are shorter but more intense
    d. More intense precipitation events

17) In the long term, which of the following population activities seems to be least affected by climate change?
    a. Agriculture
    b. Fishing
    c. Migration
    d. Forestry

18) Examples of long-term changes to our climate caused by greenhouse gases include:
    a. Increased precipitation has decreased water needs worldwide
    b. Lower average temperatures have increased the spread of disease
    c. Heat waves are occurring more often and are more intense
    d. All of the above are examples

19) Climate change in Canada may have which of the following effects?
    a. Permafrost depth will increase
    b. Storm surges will decrease in coastal areas
    c. Glaciers/icecaps melting may cause sea level rise
    d. All the above are possible effects

20) Which of the following is considered an example of a greenhouse gas?
    a. Water vapor
    b. Nitrogen
    c. Hydrogen oxide
    d. Anhydrous ammonia

21) Greenhouse gases come from all but which of the following human activities?
    a. Raising livestock
    b. Storing renewable energy
    c. Storing wastes in landfills
    d. Clearing hardwood forests

22) According to the World Health Organization, (WHO), mitigating the effects of climate change can be accomplished by all of the following except:
    a. Finding and developing new energy sources
    b. Building climate resilient health systems
    c. Transitioning to a clean energy economy
    d. Reducing carbon emissions

23) Which of the following statements is true concerning the effect of populations on climate change worldwide?
    a. Richest countries in the world account for more carbon dioxide emissions than poorest countries
    b. Poorest countries account for a higher % of our population worldwide than the richest countries
    c. Poorest countries account for a lower % of carbon dioxide emissions than richest countries
    d. All of the above are true statements

24) A recommended global response to the threat of destructive climate change is:
    a. Reach net zero carbon dioxide emissions by 2030
    b. Reduce carbon dioxide emissions by 50% by 2050
    c. Limit average surface temperature rise to no more than 1.5 degrees C above pre-industrial levels
    d. All of the above

25) Which of these groups will be least able to cope with the effects of global change?
    a. Developing countries with climate resilience
    b. Developed countries with highly developed industries
    c. Developing countries with weak health systems
    d. Developed countries with high incomes