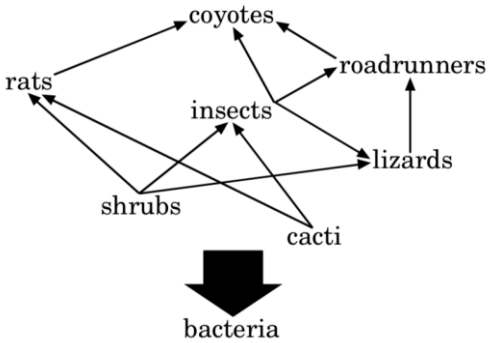
Maine FFA Environmental and Natural Resources CDE
Practice I - KEY - General Knowledge Test

Use this diagram of a food web to answer the next five questions



1) In which biome is this food web most likely to be found?
    a. Forest
    b. Desert
    c. Grassland
    d. Urban

2) What is the function of bacteria in this food web?
    a. Decomposers
    b. Producers
    c. Primary consumers
    d. Secondary consumers

3) If these organisms were arranged in a food pyramid, which organism would have the least amount of total energy available?
    a. Coyote
    b. Insect
    c. Lizard
    d. Shrub

4) Which population would increase most if the insects were eliminated?
    a. Decomposers
    b. Producers
    c. Primary consumers
    d. Secondary consumers

5) Which of the following populations begins the flow of energy through the food web?
    a. Coyotes
    b. Insects
    c. Lizards
    d. Shrub

6) Two environmentally sound methods of solid waste disposal are
    a. Incineration and sanitary landfills
    b. Ocean dumping and sanitary landfills
    c. Town dumps and sanitary landfills
    d. Compaction and town dumps
    e. Town dumps and recycling centers

7) Which of the following is a consequence of compaction?
    a. Increased soil salinity
    b. Increased weathering of rocks
    c. Decreased absorption of water
    d. Decreased soil fertility

8) Air is
    a. 78 percent argon
    b. 21 percent nitrogen
    c. 21 percent oxygen
    d. 10 percent carbon dioxide

9) The largest soil particle is
    a. Clay
    b. Gravel
    c. Sand
    d. Silt

10) Brackish water is
    a. Colored black
    b. Located in tidal areas
    c. Collected from small creeks and branches
    d. Mostly high in salinity (20-34 ppt)

11) This type of erosion can be responsible for up to 95 percent of soil loss.
    a. Splash Erosion
    b. Sheet Erosion
    c. Gully Erosion
    d. Wind Erosion

12) What role do forests have in the environment?
    a. Filter groundwater
    b. Prevent soil erosion
    c. Convert carbon dioxide into oxygen
    d. Provide wildlife habitat
    e. All of the above

13) The horizon that is most supportive of plant growth is
    a. Horizon O
    b. Horizon A
    c. Horizon B
    d. Horizon C

14) _____ is a species of fish adapted to cold, running water in streams.
    a. Carp
    b. Catfish
    c. Trout
    d. Sunfish

15) Ecosystems that are characterized by partially enclosed coastal bodies of water where salty seawater mixes with freshwater from streams and rivers are called?
    a. Euphotic zones
    b. Coral reefs
    c. Estuaries
    d. Benthic zones

16) _____ is the sequential replacement of species in an ecosystem which underwent an artificial or natural disturbance.
    a. Primary succession
    b. Secondary succession
    c. Tertiary succession
    d. None of the above

17) Which of the following is NOT one of the four basic elements of a habitat?
    a. Macronutrients
    b. Space
    c. Shelter
    d. Food
    e. Water

18) What is ecology?
    a. A complex network of living and nonliving organisms
    b. The branch of science dealing with the complex relationships of nonliving organisms
    c. The branch of science dealing with the complex relationships of living things and the environment
    d. The branch of science dealing only with natural resources
    e. The branch of science dealing with nature's effect of living things

19) Define riparian area.
    a. The grassy areas located along the borders of a field
    b. Land and vegetation adjacent or near the banks of a waterway
    c. Areas that are covered with water at least part of the year
    d. The ridge or high area from which water drains either toward or away from a watershed

20) A snag tree is most commonly defined as a
    a. Live standing tree that shelters wildlife and is a valuable timber source
    b. Dead tree which is also a shelter for wildlife but is of little to no timber value
    c. Live tree that is hollow or contains holes large enough to shelter wildlife
    d. None of the above

21) Fish that migrate between freshwater and saltwater are called?
    a. Diadromous
    b. Desalination
    c. Flocculation
    d. Hygrophyte

22) Transpiration is
    a. The process when a plant absorbs water into its roots and then gives off water vapor through the pores in its leaves
    b. The process of water filtering down through aerated soil due to gravity
    c. The process of turning from liquid to vapor
    d. The process of precipitating a substance from a solution

23) Which of the following is considered a non-exhaustible resource?
    a. Solar energy
    b. Geothermal sources
    c. Tidal energy
    d. Wind power
    e. All of the above

24) What percentage of the average soil are minerals?
    a. 25 percent
    b. 45 percent
    c. 5 percent
    d. 10 percent

25) Which of the following is considered the largest contributor to the problem of acid precipitation?
    a. Sulfur
    b. Sulfur Dioxide
    c. Sulfur Monoxide
    d. None of the above

26) What is the first step in the chemical breakdown by bacteria during the nitrification process?
    a. Ammonia to nitrates
    b. Ammonia to nitrites
    c. Nitrates to nitrites
    d. Nitrites to nitrates

27) Which of the following is a primary producer?
    a. cows
    b. trees
    c. blue crab
    d. striped bass

28) Contaminants of food and water include
    a. Registered pesticides
    b. Contact by cockroaches
    c. Feces and urine
    d. All of the above

29) The product of decaying plant or animal matter is
    a. Chlorofluorocarbons
    b. Methane
    c. Nitrous oxide
    d. Ozone

30) Decay of organic matter is caused by
    a. Large animals
    b. Microbes
    c. Rodents
    d. Water

31) The land class with the fewest limitations is
    a. Class I
    b. Class III
    c. Class VI
    d. Class VIII

32) There are about _____ acres of productive forests in the continental United States
    a. 105 million
    b. 235 million
    c. 500 million
    d. 751 million

33) The most important commercial species of trees in the United States is
    a. Oak
    b. Douglas fir
    c. Redwood
    d. Walnut

34) A forest that has never been harvested is called
    a. Virgin
    b. Hardwood
    c. Clear cut
    d. Seedling

35) The seed-tree method of harvesting
    a. Cuts all trees over a certain diameter
    b. Cuts all trees under a certain diameter
    c. Cuts about one-third of the trees in a woodlot
    d. Cuts all but a few trees left for seed

36) Forest wildlife generally survive best in forest that are
    a. Of mixed-age trees
    b. Deciduous
    c. Evergreen
    d. Of even age trees

37) Trees going along streams help to
    a. Regulate water flow
    b. Provide food for aquatic wildlife
    c. Regulate stream temperatures
    d. All of the above

38) When two species of wildlife live together for the benefit of both, the relationship is called
    a. Mutualism
    b. Predation
    c. Commensalism
    d. Competition

39) Wetlands should be made up of about _____ shallow, standing water for optimum wildlife use.
    a. One fourth
    b. One third
    c. One-half
    d. Two-thirds

40) The highest salinity level is measured in
    a. Pond water
    b. Irrigation water
    c. Creeks
    d. Ocean water

41) A fish death can occur when a pond "rolls over"
    a. Because of the temperature shock
    b. Because the sages sink to the bottom
    c. Because of low levels of dissolved oxygen
    d. Because the fish turn upside down

42) The rate at which photosynthesis is carried out depends on
    a. The amount of fertilizer in the water
    b. The amount of oxygen in the atmosphere
    c. The amount of respiration carried on during the daylight hours
    d. The intensity, temperature and concentration of carbon dioxide

43) Conservation is best defined as…
    a. An attempt to prevent the use or modification of some natural resource.
    b. A natural resource that for all practical purposes will never run out.
    c. The "wise use" of our natural resources to provide as much usefulness as possible to people both now and in the future.
    d. A social or political activity intended to benefit a Natural Resource.

44) Slope, texture, flood hazard, and drainage are used to describe physical properties of …
    a. Soils
    b. Forestry
    c. Watersheds
    d. None of the Above

45) Which of these would be considered a keystone species?
    a. Grey wolf
    b. White-footed mice
    c. White-tailed deer
    d. Red fox

46) _____ is the process by which an organism maintains a fairly constant internal environment when the external environment changes.
    a. Homeostasis
    b. Periodicity
    c. Poikilotherm
    d. Homeotherm

47) This made it a federal offense to transport illegally acquired wildlife across state boundaries
    - **a. Lacey Act,1900**
    - b. Migratory Bird Act, 1929
    - c. Lea Act, 1948
    - d. Pitman-Robertson Act, 1950

48) The ability of a given area to provide food, water, and shelter for the population of a given animal is defined as:
    - a. Maximum daily load
    - **b. Carrying capacity**
    - c. Resource consumption
    - d. Minimum viable population

49) _____ is a special type of wetland that may only last for a few months each year.
    - **a. Vernal pool**
    - b. Excavated pond
    - c. Embankment pond
    - d. None of the above

50) Chlorophyll is important in plants because it
    - a. Creates an atmosphere where it can determine the osmotic pressure
    - b. Allows the plant to make good xylem tissue
    - **c. Allows photosynthesis to occur**
    - d. Is also known as the chloroplasts