

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

1. What is ecology?
  - a. the branch of science dealing with the complex relationships among living things and their environment**
  - b. the branch of science dealing with the complex relationships of nonliving organisms
  - c. the branch of science dealing with only natural resources
  - d. complex network of living and nonliving organisms
  
2. What is an ecosystem?
  - a. a complex network of living and non living organisms in which each organism may be affected by the others**
  - b. a complex relationship among living things and their environment
  - c. a complex relationship among nonliving organisms
  - d. natural resources
  
3. What is known as the universal solvent?
  - a. gasoline
  - b. kerosene
  - c. any liquid
  - d. water**
  
4. Decaying plant and animal matter produce...
  - a. chlorofluorocarbons
  - b. methane**
  - c. nitrous oxide
  - d. ozone
  
5. A gas that is poisonous that can't be removed from auto exhaust is...
  - a. carbon monoxide**
  - b. hydrocarbons
  - c. nitrous oxides
  - d. radon
  
6. Which of the following is not associated with photosynthesis?
  - a. carbon dioxide
  - b. oxygen
  - c. radon**
  - d. water

7. Air pollutants which adhere to precipitation and falls to the earth is called \_\_\_\_\_.
- acid drainage
  - acid rain**
  - leachate
  - leaching
8. What is groundwater that is available for plant root absorption called?
- capillary**
  - free
  - gravitational
  - hygroscopic
9. Which of the following is the smallest soil particle?
- clay**
  - gravel
  - sand
  - silt
10. Which of the following would not be a recommended practice to reduce or prevent wind and water erosion?
- crop rotation
  - contour farming
  - liming the soil**
  - strip cropping
11. pH of water is a measure of...
- cations
  - oxygen ions
  - hydrogen ions**
  - salts
12. When plants lose water through pores in their leaf surface it is known as....
- condensation
  - evaporation
  - precipitation
  - transpiration**

13. What is an organism called that is sensitive to pollution and is used to determine the suitability of a living environment?
- a. **indicator species**
  - b. invasive species
  - c. limiting factor
  - d. native species
14. What type of water is held tightly to the soil particles and is not available to plant roots?
- a. capillary water
  - b. gravitational water
  - c. **hygroscopic water**
  - d. saturated water
15. When you measure the total concentration of all dissolved ions in water you are measuring the...
- a. dissolved oxygen
  - b. pH
  - c. **salinity**
  - d. saturation point
16. Which of the following influences the solubility of oxygen?
- a. alkalinity
  - b. water hardness
  - c. **temperature**
  - d. pH
17. What is the process by which organic matter is reduced to organic compounds?
- a. **decomposition**
  - b. photosynthesis
  - c. respiration
  - d. symbiosis
18. In an ecosystem one of the components that produces new food by means of photosynthesis is known as...
- a. decomposers
  - b. **producers**
  - c. synthesizer
  - d. transformers

19. A green plant can be a member of which of the following groups?
- decomposers and producer
  - producer and transformer**
  - synthesizer and decomposer
  - transformer and synthesizer
20. Which is the process by which plant tissues are broken down to produce heat, water, and carbon dioxide?
- chlorophyll
  - decomposition
  - photosynthesis
  - respiration**
21. What happens when lightening strikes in an environment?
- decomposition
  - denitrification
  - nitrogen fixation**
  - transpiration
22. Which of the following is not an example of a type of hydroponic system?
- aeroponic culture
  - aggregate culture
  - conventional bench culture**
  - nutriculture
23. What is a biotic factor?
- the living parts of an ecosystem**
  - any non living factor in our environment that is useful in our lives
  - anything that is produced that is useful in our lives
  - living things organized into various levels
24. What is the over accumulation of pollutants at successive levels of the food chain called?
- biomagnification**
  - bio permeability
  - eutrophication
  - non point source pollution

25. Thermal pollution has a harmful effect on aquatic environments because
- it decreases the nutrient levels in aquatic environments
  - it reduces the amount of dissolved oxygen in aquatic environments**
  - it increases the number of disease-causing organisms in aquatic environments
  - water has been circulated around power plant generators.
26. Which of the following is not a process of soil degradation?
- soil erosion
  - salinization
  - nitrogen fixation**
  - soil pollution
27. Soil pH is generally increased by adding
- complete fertilizer
  - nitrogen
  - lime
  - sulfur**
28. Which type of soils are deposited and transported by streams?
- alluvial deposits**
  - colluvial deposits
  - glacial deposits
  - lacustrine deposits
29. The insect-control practice that relies on the introduction of parasites and predators is...
- biological**
  - chemical
  - cultural
  - regulatory

30. What is a natural resource?
- a. **anything that was not produced by humans and that is useful in our lives**
  - b. any living factor in our environment that is useful in our lives
  - c. any non living factor in our environment that is useful in our lives
  - d. any product produced that is useful in our lives
31. Which of the following is least likely to be considered a wetland?
- a. a floodplain
  - b. a marsh
  - c. **a plateau**
  - d. a prairie pothole
32. Primary succession occurs when...
- a. an ecosystem is damaged or partly destroyed
  - b. **organisms live in an area where they did not live before**
  - c. Plants displace animals from an environment
  - d. Remnants of a former community still exist
33. Which of the following pollutants causes artificial eutrophication?
- a. heavy metals from unlined landfills
  - b. **inorganic plant nutrients from wastewater and fertilizer run off**
  - c. radioactive waste from nuclear power plants
  - d. toxic chemicals from factories
34. The area of earth that supports life is called the...
- a. Atmosphere
  - b. **Biosphere**
  - c. Rhizosphere
  - d. Stratosphere
35. The primary source of food energy in a food chain comes from...
- a. consumers
  - b. decomposers
  - c. **producers**
  - d. water

36. Carbon is returned to the atmosphere through
- carbon is completely used and never returns to the environment
  - the burning of fossil fuels
  - the water cycle
  - respiration of producers, consumers, and decomposers**
37. Consumers.....
- are the beginning of any food chain..
  - cannot make their own food**
  - manufacture their own food by participating in food chains or webs.
  - out number the producers in the world.
38. Pollution that can be traced back to a specific source is known as...
- carcinogenic
  - non-point source pollution
  - mutagenic
  - point source pollution**
39. What is it called when a group of ecosystems within a region have similar types of vegetation and similar climatic conditions?
- biome**
  - estuary
  - habitat
  - stratum
40. What is a group of similar organisms that is found in a defined area known as?
- community
  - family
  - herd
  - population**
41. Transpiration is important in which natural cycle?
- the carbon cycle
  - the conservation of matter
  - the nitrogen cycle
  - the water cycle**

42. Highly degraded soil organic matter is/are known as....
- a. **humus**
  - b. microbial soil
  - c. pedogenesis
  - d. soil beginnings
43. The conversion of energy from one form to another is always accompanied by the loss of...
- a. carbon
  - b. **heat**
  - c. matter
  - d. water
44. The most abundant element found in living organisms is...
- a. **carbon**
  - b. hydrogen
  - c. nitrogen
  - d. oxygen
45. What is the function of a watershed?
- a. protect potable water tanks from the weather
  - b. protect water from contaminants
  - c. **release a consistent flow of water throughout the year**
  - d. shelter a water pump
46. Which of the following is not a function of a wetland?
- a. **a safe dumpsite for leftover farm and garden chemicals**
  - b. natural water-treatment site for nitrates and phosphates
  - c. migratory bird refuge
  - d. sediment filtering from surface water
47. What is the relationship called when a plant or animal that is in, on or with another, neither sharing its food but neither helping nor harming it?
- a. **commensalism**
  - b. competition
  - c. predation
  - d. symbiosis



48. What percentage of the average soil is organic matter?
- a. **5 %**
  - b. 17%
  - c. 25 %
  - d. 45 %
49. Which has the least tendency to form clods, the least moisture holding capacity, and the least fertility?
- a. clay
  - b. loam
  - c. **sand**
  - d. silt
50. Abiotic factors influencing ecosystems include.....
- a. food chains and the loss of heat at each step
  - b. producers, consumers, and decomposers
  - c. the living parts of an ecosystem
  - d. **water, soil, air, climate, and space**