

**2009 Environmental Science and Natural Resources CDE Exam
Idaho FFA**

1. Which of the following is an example of non-renewable resources?
 - a. Wind
 - b. Water
 - c. Vegetation
 - d. Coal

2. Which of the following provides the best example of a primary consumer?
 - a. Maggot
 - b. Rabbit
 - c. Coyote
 - d. Grass Plant

3. All the populations of plants and animal species that live and interact in a given area at a particular time, as well as the chemical and physical factors that make up the non-living environment are called a[n] _____.
 - a. Ecosystem
 - b. Socio-Economic System
 - c. Symbiotic World Order
 - d. Environmental Microcosm

4. Which of the following is an example of a biotic component of environment?
 - a. Water
 - b. Wind
 - c. Plants
 - d. Temperature

5. There are 5 elements that make up about 95% of living organisms on earth. These elements are called macronutrients and they include:
 - a. Potassium, Phosphorus, Oxygen, Hydrogen, and Sodium
 - b. Carbon, Oxygen, Hydrogen, Nitrogen, and Phosphorus
 - c. Silica, Iron, Hydrogen, Potassium, and Carbon
 - d. Carbon, Hydrogen, Iron, Phosphorous, and Potassium

6. Detritus feeders:
 - a. Consume dead plants and animals
 - b. Get their energy by breaking apart phosphorous-based compounds
 - c. Eat animal flesh only
 - d. Are a type of phytoplankton

7. Ruminant animals can use high fiber food effectively because:
 - a. They secrete enzymes in the rumen that break down cellulose
 - b. Considerable fermentation and particle breakdown occurs in the cecum
 - c. They have microorganisms in the rumen that break down cellulose
 - d. They digest soluble carbohydrates and pass structural carbohydrates through the digestive system

8. What percent of the average soil is organic matter?
 - a. 45
 - b. 5
 - c. 25
 - d. 10

9. Which of the following is a consequence of soil compaction?
- Increased soil salinity
 - Decreased soil fertility
 - Increased weathering of rocks
 - Decreased absorption of water
10. This type of erosion can be responsible for up to 95% of soil loss due to erosion.
- Splash Erosion
 - Sheet Erosion
 - Gully Erosion
 - Wind Erosion
11. Which of the following soil is the best for plant growth?
- Sandy soil
 - Clay
 - Gravel
 - Loamy soil
12. Soil texture refers to:
- The size of soil particles
 - Nutritional status of the soil
 - Amount of soil organic relative to mineral matter
 - Arrangement of soil particles
13. Before the ingredients of soil are broken down and form soil they are known as:
- Felsic mix
 - Parent material
 - Organic minerals
 - Lithographites
14. The primary products of photosynthesis are:
- Proteins
 - Carbohydrates
 - Fats
 - Amino Acids
15. Approximately 78% of the earth's atmosphere is made up of what gas?
- Carbon
 - Nitrogen
 - Oxygen
 - Water Vapor
16. Excessive quantities of carbon dioxide, water vapor, methane, and nitrous oxide in the atmosphere, which reflect heat back onto the earth's surface is called _____.
- The Greenhouse Effect
 - Desertification
 - Acid Rain
 - Solar Introspection

17. Which of the following process converts carbon in fossil fuels to carbon dioxide in the atmosphere?
- Fixation
 - Denitrification
 - Combustion
 - Infiltration
18. The only gas in the atmosphere that can absorb the sun's dangerous ultraviolet radiation is _____.
- Ozone
 - Carbon Dioxide
 - Nitrous Oxide
 - Nitrogen
19. The device on an automobile that filters harmful pollutants out of the exhaust before it enters the air is a[n] _____.
- Radiator
 - Alternator
 - Catalytic Converter
 - Carburetor
20. Water cycles through the hydrological cycle in this order:
- Condensation → soaking in the ground → condensation → transpiration
 - Transpiration → soaking into the ground → evaporation → soaking into soil
 - Evaporation and transpiration → condensation → precipitation → soaking into the ground → plant absorption and runoff → evaporation and transpiration
 - Plant absorption and run off → soaking into the ground → precipitation
21. The buildup of nutrients in a body of water that leads to excessive algae growth is called:
- Equinoctial
 - Eradication
 - Equatorial
 - Eutrophication
22. Floods can be prevented by:
- Afforestation
 - Harvesting forests for lumber
 - Tilling adjacent lands
 - Trampling soil with livestock
23. About 70 percent of the earth is covered by water. Of this amount, about what percent of it is suitable for human use?
- less than one
 - 10
 - 25
 - 50
24. The largest amount of usable water found on earth is used for:
- Industrial uses
 - Household use
 - Crop irrigation
 - Recreation

25. Which of the following is a leading groundwater contaminant?
- Sewage and wastes
 - Nitrates and pesticides
 - Car exhaust and oil spills
 - Cattle and hog wastes
26. The resources and processes that are supplied to humans by the natural ecosystem are:
- Biosphere balancing
 - Ecological services
 - Biological control
 - The greenhouse effect
27. Which sphere contains all of the plant and animal life on the earth's surface?
- Hydrosphere
 - Atmosphere
 - Biosphere
 - Lithosphere
28. Which of the following is not part of the nitrogen cycle?
- Denitrification
 - Sublimation
 - Nitrogen Fixation
 - Ammonification
29. The gradual transformation of a plowed field into a perennial grassland over the passage of years is an example of:
- Limiting factors
 - A community rather than an ecosystem
 - Ecological succession
 - Ecological transformation
30. Control of pests by disrupting their ecological status, as through the use of organisms that are natural predators, parasites, or pathogens is known as:
- Integrated Pest Management (IPM)
 - Genetically Modified Organisms (GMO's)
 - Organo-Culture
 - Biological Control (or Biocontrol)
31. In a population of organisms, the number of infants or seedlings that reach breeding age is called the _____ rate.
- Reproductive
 - Survival
 - Recruitment
 - Fertility
32. What is no-till crop production?
- Preparing a good seedbed for crops
 - Plowing ground, but not disking
 - The planting of seeds in the previous year's residue
 - Disking ground prior to planting

33. The dramatic increase in agricultural production that has been made possible by high yield crops and inorganic fertilizers is called the _____.
- a. Green Revolution
 - b. Bioeconomic Revolution
 - c. Biotechnical Revolution
 - d. Greenhouse Effect
34. Which of the following is not a fossil fuel?
- a. Natural Gas
 - b. Petrol
 - c. Coal
 - d. Uranium
35. Biogas generation is mainly based on the process of _____.
- a. Fermentation
 - b. Degradation
 - c. Putrification
 - d. Succession
36. Which of the following forms of energy is a renewable resource?
- a. Synthetic natural gas
 - b. Breeder fission
 - c. Biomass
 - d. Oil shale
37. Which of the following is the greatest threat to populations of migratory North American songbirds?
- a. Predation by raptors
 - b. Clearing of tropical forest
 - c. Disease from polluted water
 - d. International trade in pets
38. A biosphere reserve conserves and preserves _____.
- a. Heirloom varieties of crops and livestock
 - b. Wild animals and natural vegetation
 - c. Agricultural lands and agricultural heritage
 - d. Endangered and exotic plants
39. Arable land is land that:
- a. Can be used for growing crops
 - b. Has excessive infiltration rates
 - c. Is recovering from desertification
 - d. In late stage of succession
40. The definition of a riparian area is:
- a. The grassy area at the border of fields
 - b. Lands and vegetation adjacent to streams, rivers and ponds
 - c. Land that is at the top of a watershed border
 - d. Strips of trees planted to reduce wind erosion
41. According to the Endangered Species Act (ESA), a species that is "*likely to become endangered in the foreseeable future throughout a significant portion of its range*" is:
- a. Endangered
 - b. Precious
 - c. Threatened
 - d. Distressed

42. What is the name of the area in which an individual animal conducts its normal daily activities (i.e., resting, foraging, drinking)?
- Habitat
 - Home Range
 - Territory
 - Potential Range
43. What is the name for a native animal that is not, or never has been, domesticated?
- An exotic species
 - A redomesticated species
 - A feral species
 - A wildlife species
44. A plant or animal that is not native to North America is called:
- Noxious
 - Feral
 - Exotic
 - Naturalized
45. The location and extent of the terrestrial ecosystems of the world are primarily determined by:
- The Phosphorus Cycle
 - Human Activities
 - Albedo and Fixation
 - Temperature and Precipitation
46. Which of the following is not a characteristic of a grass?
- Fibrous roots
 - Dies back to crown after growth every year
 - Narrow, thin leaves
 - Solid stem
47. Which of the following trees are examples of softwoods?
- Pines and Spruces
 - Maple and Hickory
 - Oaks and Mesquite
 - Willows and Rushes
48. Ecosystems dominated by large trees are called forests and they make up about ____% of the earth's land surface:
- 15
 - 30
 - 45
 - 60
49. Wilderness is defined as land that is:
- Dominated by large trees and used as wildlife habitat
 - Rangeland that are not useful for livestock grazing
 - Forest Service land used only for recreation
 - Not strongly affected by humans where humans are "visitors"
50. Human activities that cause changes in an ecosystem are called:
- Retrogressive
 - Biogenic
 - Anthropogenic
 - Eco-services