1. Which will help develop knowledge and skills by working as a team member to identify trees and solve problems related to timber production:
   NCCTE.9_12.AE.AN51.EN01.01
   RBT:
   
   A. Equine Science Proficiency Award
   **B. Forestry Career Development Event**
   C. Parliamentary Procedure Career Development Event
   D. Public Speaking Career Development Event

2. Students will develop leadership skills by:
   NCCTE.9_12.AE.AN51.EN01.01
   RBT:
   
   A. **Being an officer in an environmental organization.**
   B. Completing a proficiency award application.
   C. Cleaning up the school grounds.
   D. Identifying trees.

3. Which provides the BEST opportunity to develop student leadership in Natural Resources students?
   NCCTE.9_12.AE.AN51.EN01.01
   RBT:
   
   A. **Committee chairperson**
   B. Field trip
   C. Forestry CDE
   D. Envirothon CDE
4. The part of the Natural Resources program that provides opportunities to develop leadership, teamwork, citizenship, personal growth and career success is the:

NCCTE.9_12.AE.AN51.EN01.01
RBT:

A. FFA organization.
B. Classroom instruction.
C. Outside lab exercises.
D. Supervised Agricultural Experience program.

5. As a committee chairperson, Lori helped develop the Chapter Program of Activities. The things she learned can BEST be used later in an environmental association to:

NCCTE.9_12.AE.AN51.EN01.02
RBT:

A. Conduct safety inspection.
B. Cook and serve food.
C. Keep financial records.
D. Set goals and develop plans.

6. Juan is a member of the committee that developed the income, expense and profit plans for the tilapia fish sale. That experience can later be used in natural resources organizations to:

NCCTE.9_12.AE.AN51.EN01.02
RBT:

A. Write a fishing book.
B. Keep financial records.
C. Write minutes of meetings.
D. Prepare news articles.

7. Michelle wants to further develop her knowledge and skills by working as a team member to identify trees, mark timber, and solve problems related to pulpwood and timber. Which will BEST help her reach her goal?

NCCTE.9_12.AE.AN51.EN01.02
RBT:

A. Equine Science Proficiency Award
B. Forestry Career Development Event
C. Parliamentary Procedure Career Development Event
D. Envirothon Career Development Event
8. To conduct official business using well-defined rules and procedures so that all members can participate, the organization uses:

   A. Consensus.
   B. Harassment.
   **C. Parliamentary Procedure.**
   D. Threats.

9. A list of what will be done at a business meeting is the:

   A. Agenda.
   B. Committee reports.
   C. Minutes.
   D. Treasurer’s report.

10. In a business meeting, the chairman displays the symbol of authority by using the:

    A. Gavel.
    B. Official jacket.
    C. Treasurer’s report.
    D. U.S. Flag.

11. Giving all members the opportunity to make, second, discuss and vote on motions is an example of parliamentary procedure principle?

    A. Only one item is considered at a time
    B. Rights of the minority are protected
    C. The majority rules
    D. The president is the boss
12. Which procedure guarantees that more than one member wants an item of business brought before the group?

RBT:

A. Adjourn the meeting  
B. Division of the assembly  
C. Second the motion  
D. Take from the table

13. The MAJOR advantage of using parliamentary procedure in a business meeting is that:

RBT:

A. A small minority can control the meeting.  
B. Business is conducted fairly and quickly.  
C. Students learn how the courts work.  
D. Teachers have more control over meetings.

14. The part of an FFA meeting that explains the meaning of certain emblems is the:

RBT:

A. Creed.  
B. Minutes.  
C. Opening ceremony.  
D. Unfinished business.

15. The duty of the chairperson in a business meeting is:

RBT:

A. Make motions.  
B. Make the rules.  
C. Preside.  
D. Sing.
16. In a business meeting, the person who presides or leads the meeting is the:

A. Chairman.
B. Guest speaker.
C. Secretary.
D. Treasurer.

17. During the business meeting, John moved to sell Christmas trees for $50.00 each as a fundraiser project. Sue questioned whether the chapter could earn a profit, but no one could answer her question. What parliamentary procedure is used to resolve this question?

A. Amend the motion
B. Refer the motion to committee
C. Call for a division of the house
D. Adjourn the meeting

18. The motion to sell fruit for $20.00 a box is being discussed, but the members need to know the group’s cost to purchase the fruit before deciding the selling price. The motion used in this situation is:

A. Division of assembly.
B. Point of order.
C. Refer to a committee.
D. Take from the table.

19. Amber wants to present an idea to be discussed and voted on by other members. The first three words in making the main motion are:

A. "Hello, I am…"
B. "I move to…"
C. "I think we…"
D. "I want to…"
20. The president called for a voice vote on a main motion and announced that the motion passed. However, a member asked for a counted vote by:

NCCTE.9_12.AE.AN51.EN02.02
RBT:

A. Amending the motion.
B. **Calling for a division.**
C. Moving to adjourn.
D. Taking the motion from the table.

21. Alex believes that Jessica is discussing a motion that is not debatable. To correct this mistake, Alex should:

NCCTE.9_12.AE.AN51.EN02.02
RBT:

A. Call for a division.
B. Move to adjourn.
C. Move to amend.
D. **Rise to a point of order.**

22. Jim moved to sell fruit to raise money for FFA scholarships. Michelle wants to sell flowers. To change the motion, Michelle moves to:

NCCTE.9_12.AE.AN51.EN02.02
RBT:

A. Adjourn.
B. **Amend.**
C. Refer to a committee.
D. Stop discussion.

23. A student who enjoys explaining scenery to tourists and working with people will do well working as a/an:

NCCTE.9_12.AE.AN51.EN04.01
RBT:

A. Cartographer.
B. Engineer.
C. **Nature area tour guide.**
D. Wildlife biologist.
24. A person who prepares students for careers in the natural sciences and the agriculture industry is a/an:

A. Agricultural education teacher.
B. Soil conservationist.
C. Naturalist.
D. Forester.

25. A person employed as an environmental horticulturalist works in the career area of:

A. Air quality.
B. Recycling and composting.
C. Forestry and horticulture.
D. Wildlife protection.

26. A cartographer is someone who:

A. Reports weather conditions.
B. Studies nature.
C. Studies living things.
D. Prepares maps about the environment.

27. A person that studies fish and develops ways of raising them in captivity or in their natural habitat is a/an:

A. Conservation officer.
B. Fishery biologist.
C. Fisherperson.
D. Naturalist.
28. Someone who studies weather and climate information is a:
   NCCTE.9_12.AE.AN51.EN04.01
   RBT:

   A. Conservation officer.
   B. **Meteorologist.**
   C. Pesticide technician.
   D. Wildlife manager.

29. The management of wastewater collection and treatment facilities is MOSTLY associated with:
   NCCTE.9_12.AE.AN51.EN04.02
   RBT:

   A. Solid waste management.
   B. **Wastewater management and treatment.**
   C. Hazardous materials management.
   D. Recycling and composting.

30. Preparing forecasts and studying weather trends BEST describes careers in:
    NCCTE.9_12.AE.AN51.EN04.02
    RBT:

    A. **Weather and climate.**
    B. Air quality.
    C. Soil and water conservation.
    D. Education and communications.

31. The people who provide information about rainfall, temperature and planting times work in the environmental career area BEST known as:
    NCCTE.9_12.AE.AN51.EN04.02
    RBT:

    A. Air quality.
    B. Recycling and composting.
    C. Soils.
    D. **Weather and climate.**
32. The environmental area that employs people to provide information about rainfall, temperature, and planting tips is BEST described as:

NCCTE.9_12.AE.AN51.EN04.02

A. Air quality.
B. Biology.
C. Soils.
D. Weather and climate.

33. What would be considered the MOST important value of the natural resources industry?

NCCTE.9_12.AE.AN51.EN04.02

A. Provides habitat for wildlife
B. Protects the soil, water, and air
C. Educates society to appreciate resources
D. Provides information about our weather

34. The coal and gas needed to fuel power plants and homes comes from the environmental career area BEST known as:

NCCTE.9_12.AE.AN51.EN04.02

A. Air quality.
B. Forestry.
C. Mineral and fossil fuel extraction.
D. Weather and climate.

35. Which type of Supervised Agricultural Experience uses a "Project Log" to describe project activities?

NCCTE.9_12.AE.AN51.EN07.02

A. Analytical
B. Entrepreneurship
C. Exploratory
D. Placement
36. Which type of Supervised Agricultural Experience will have an entry under the "Review of Literature" heading?
NCCTE.9_12.AE.AN51.EN07.02
RBT:

A. Entrepreneurship
B. Experimental
C. Improvement
D. Placement

37. Brittany has an experimental type of Supervised Agricultural Experience. Under which heading in the SAE Record should she enter her prediction concerning her experiment?
NCCTE.9_12.AE.AN51.EN07.02
RBT:

A. Efficiency Factors
B. Hypothesis
C. Training Agreement
D. Type of Enterprise

38. Joey spent two hours on Saturday pruning a fruit tree although his Supervised Agricultural Experience program involves working as a forest technician. In which section of the SAE Record will he enter the fruit tree pruning activity?
NCCTE.9_12.AE.AN51.EN07.02
RBT:

A. Analytical
B. Experimental
C. Placement
D. Supplementary

39. Jose visited a state park to learn about careers. In which section of the SAE Record will he enter the activity?
NCCTE.9_12.AE.AN51.EN07.02
RBT:

A. Analytical
B. Entrepreneurship
C. Exploratory
D. Supplementary
40. In which Supervised Agricultural Experience does a student make entries in the SAE record under the heading of "Type of Enterprise" and "Efficiency Factors"?

NCCTE.9_12.AE.AN51.EN07.02

RBT:

A. Analytical

B. Entrepreneurship

C. Improvement

D. Placement

41. Shannon has a placement-type Supervised Agricultural Experience program. In her SAE Record, she will have an entry for:

NCCTE.9_12.AE.AN51.EN07.02

RBT:

A. Conclusion.

B. Efficiency factors.

C. Hypothesis.

D. Training agreement.

42. Debts that a business owe are:

NCCTE.9_12.AE.AN51.EN08.01

RBT:

A. Assets.

B. Equity.

C. Liabilities.

D. Net worth.

43. Equity is the same as:

NCCTE.9_12.AE.AN51.EN08.01

RBT:

A. Assets.

B. Depreciation.

C. Liabilities.

D. Net worth.
44. An itemized list of things owned by a logging business is the:

NCCTE.9_12.AE.AN51.EN08.01
RBT:

A. Equity.
B. **Inventory.**
C. Liabilities.
D. Net worth.

45. Net worth is:

NCCTE.9_12.AE.AN51.EN08.01
RBT:

A. Current assets minus current liabilities.
B. Inventory plus depreciation.
C. **Total assets minus total liabilities.**
D. Total assets plus total liabilities.

46. Inventory is a list of:

NCCTE.9_12.AE.AN51.EN08.01
RBT:

A. Debts owed.
B. New employers.
C. Telephone numbers.
D. **Things owned.**

47. Something of real or tangible value that a person or a business owns is:

NCCTE.9_12.AE.AN51.EN08.01
RBT:

A. A liability.
B. **An asset.**
C. Debt.
D. Net worth.
48. Joe’s Recycling has $150,000 total assets and $100,000 total liabilities. What amount should be entered on the net worth line of the net worth statement?  

NCCTE.9_12.AE.AN51.EN08.02  
RBT:  

A. $50,000  
B. $150,000  
C. $200,000  
D. $300,000  

49. Sarah Smith’s tree farm has total assets of $400,000 and total liabilities of $300,000. What amount should she enter on the net worth line on the net worth statement?  

NCCTE.9_12.AE.AN51.EN08.02  
RBT:  

A. $100,000  
B. $200,000  
C. $300,000  
D. $400,000  

50. Jerry has $200,000.00 total assets and $100,000.00 total liabilities. What amount should be entered on the net worth line of the net worth statement?  

NCCTE.9_12.AE.AN51.EN08.02  
RBT:  

A. $50,000.00.  
B. $100,000.00.  
C. $200,000.00.  
D. $300,000.00.  

51. The wise use of natural resources is called:  

NCCTE.9_12.AE.AN51.EN12.01  
RBT:  

A. Conservation.  
B. Materialism.  
C. Natural resource interaction.  
D. Technology.
52. A naturally occurring material or organism that supports life, provides fuel, or is used in other ways by humans is a:

NCCTE.9_12.AE.AN51.EN12.01
RBT:

A. Renewable resource.
B. Productive resource.
C. Natural resource.
D. Consumable product.

53. The environment consists of all the factors and surroundings that affect:

NCCTE.9_12.AE.AN51.EN12.01
RBT:

A. Atmosphere.
B. Cartography.
C. Living organisms.
D. Minerals.

54. A natural resource that is colorless and transparent is:

NCCTE.9_12.AE.AN51.EN12.01
RBT:

A. Air.
B. Water.
C. Soil.
D. Mineral.

55. A chemical compound that provides nutrients for plant growth is:

NCCTE.9_12.AE.AN51.EN12.01
RBT:

A. DDT.
B. Fertilizer.
C. Manure.
D. Trichloroethane.
56. A chemical compound used to provide additional nutrients for plant growth is called:

A. Water.
B. Compost.
C. Fertilizer.
D. Mulch.

57. A section of natural land such as prairie, wetland, or woodland is called a:

A. Development.
B. Landscape.
C. Resource.
D. Symbiosis.

58. The action of natural resources on one another is called:

A. Development.
B. Interaction.
C. Renewal.
D. Preservation.

59. An inorganic substance needed for maintenance, growth and reproduction, and other body functions is called a:

A. Compound.
B. Fossil fuel.
C. Mineral.
D. Soil.
60. A natural resource that can be replaced when it is used up is called:
NCCTE.9_12.AE.AN51.EN12.02
RBT:
   A. Aerobic.
   B. Non-renewable.
   C. Renewable.
   D. Stationary.

61. The act of controlling wild plant and animal species for the benefit of humans is called:
NCCTE.9_12.AE.AN51.EN12.02
RBT:
   A. Domestication.
   B. Interaction.
   C. Restoration.
   D. Sustenance.

62. Wildlife can be described as:
NCCTE.9_12.AE.AN51.EN12.02
RBT:
   A. Animals that live in a forest and depend on one another for survival.
   B. Plants, animals, and other things that have been domesticated.
   C. Plants, animals, and other living things that have not been domesticated.
   D. Plants that grow wild in a natural habitat.

63. Being properly informed about environmental issues from various sources is the best way to:
NCCTE.9_12.AE.AN51.EN13.01
RBT:
   A. Become confused about the issue.
   B. Develop personal beliefs about the environment.
   C. Study about the environment.
   D. Make compromising decisions about environmental issues.
64. The BEST way to develop good personal beliefs about the environment and natural resources is:
A. Be properly and thoroughly informed from various sources.
B. Depend on the opinions of your parents.
C. Read the local newspaper.
D. Watch the Weather Channel.

65. Respiration is BEST described as the process an organism uses to provide its cells with oxygen so:
A. Sugar can be produced.
B. Cells can release aerobic nutrients.
C. Energy can be released from digested food.
D. Water can enter the cell.

66. The interconnection of all the food chains in an ecosystem is BEST called a:
A. Food system.
B. Food web.
C. Fiber ecosystem.
D. Habitat.

67. The GREATEST effect humans have had on the environment is:
A. Destruction of wildlife habitats.
B. Reduction of farm land.
C. Excessive hunting of wildlife.
D. Depletion of forest stands.
68. The MOST accurate term for the use of agricultural practices that assures the future production of crops and livestock is called:

NCCTE.9_12.AE.AN51.EN13.01
RBT:

A. Conservation agriculture.
B. Economical agriculture.
C. **Sustainable agriculture.**
D. Universal agriculture.

69. An important way that humans can improve the environment naturally is to:

NCCTE.9_12.AE.AN51.EN13.01
RBT:

A. Apply excessive insecticides.
B. Overuse lawn chemicals.
C. **Plant trees for their benefits.**
D. Use excess water.

70. When animals change something about themselves in response to a change in their environment, this is BEST described as:

NCCTE.9_12.AE.AN51.EN13.01
RBT:

A. **Adapting.**
B. Conserving.
C. Preserving.
D. Winterizing.

71. The MAJOR necessity required by all living organisms in order to survive is:

NCCTE.9_12.AE.AN51.EN13.01
RBT:

A. Companionship.
B. Food.
C. Shelter.
D. **Water.**
72. A symbiotic relationship is BEST described as one in which:
NCCTE.9_12.AE.AN51.EN13.01
RBT:
   A. Humans have positive and negative effects on the environment.
   B. Different species of organisms live together and benefit each other.
   C. Dominant wildlife survive.
   D. Organisms adapt to changes in the environment.

73. Considering environmental factors when making manufacturing and construction decisions is an example of the concept called:
NCCTE.9_12.AE.AN51.EN13.01
RBT:
   A. Aerobic environmental agriculture.
   B. Design for the environment.
   C. Farm and environmental contract.
   D. Environment and technology.

74. A person who feels that natural resources should be protected and not used is BEST described as a:
NCCTE.9_12.AE.AN51.EN13.01
RBT:
   A. Conservationist.
   B. Naturalist.
   C. Protectionist.
   D. Preservationist.

75. The BIGGEST concern about the worldwide population explosion is:
NCCTE.9_12.AE.AN51.EN13.02
RBT:
   A. The use of excessive motor vehicles.
   B. Lack of adequate telephones.
   C. The demand for life necessities.
   D. The demand on recreational businesses.
76. Longer life spans are causing an increased demand for:

A. Money.
B. Clothes.
C. Medical doctors.
D. **Necessities of life.**

77. The demand for the necessities of life is growing rapidly due to:

A. The success of businesses.
B. Availability of money.
C. **Longer life spans of people.**
D. The influence of television.

78. The concept of having the birth rate equal the death rate is **BEST** called:

A. Child conservation.
B. Controlled pregnancy.
C. Technological reproduction.
D. **Zero population growth.**

79. Demography can **BEST** be defined as the science of:

A. **Human population.**
B. Natural resource demands.
C. Under population.
D. Human geographic migration.
80. Which areas of the United States have generally seen a greater increase in population?
NCCTE.9_12.AE.AN51.EN13.02
RBT:

A. East and West
B. North and South
C. South and West
D. West and North

81. The process of an organism increasing in size is:
NCCTE.9_12.AE.AN51.EN14.01
RBT:

A. Assimilation.
B. Digestion.
C. Ingestion.
D. Growth.

82. The basic building block of life is a/an:
NCCTE.9_12.AE.AN51.EN14.01
RBT:

A. Bacteria.
B. Cell.
C. Organism.
D. Specimen.

83. An organism is anything that carries out:
NCCTE.9_12.AE.AN51.EN14.01
RBT:

A. Movement.
B. Breathing.
C. Life processes.
D. Photo synthesis.
84. The period of time that an organism lives is its:
NCCTE.9_12.AE.AN51.EN14.01
RBT:

   A. Age.
   B. Life span.
   C. Living condition.
   D. Process.

85. Biological science is the study of:
NCCTE.9_12.AE.AN51.EN14.01
RBT:

   A. Plants.
   B. Living organisms.
   C. Animals.
   D. Rocks and minerals.

86. A function or activity that is needed for living is a/an:
NCCTE.9_12.AE.AN51.EN14.01
RBT:

   A. Metabolism.
   B. Life process.
   C. Life span.
   D. Mutation.

87. Animals that have backbones are called:
NCCTE.9_12.AE.AN51.EN14.02
RBT:

   A. Oysters.
   B. Invertebrates.
   C. Mollusks.
   D. Vertebrates.
88. The ability to move from one place to another is called:

RBT:

A. Assimilation.
B. Digestion.
C. Locomotion.
D. Respiration.

89. The exchange of oxygen (O2) and carbon dioxide (CO2) by an organism with its environment is called:

RBT:

A. Assimilation.
B. Digestion.
C. Locomotion.
D. Respiration.

90. The process that changes food into simple forms that can be absorbed by cells is:

RBT:

A. Assimilation.
B. Digestion.
C. Ingestion.
D. Repair.

91. Mitosis is the process of cells:

RBT:

A. Changing food substances into new material.
B. Replacing damaged parts.
C. Dividing to produce cells for growth and repair.
D. Removing unabsorbed food.
92. The part of a cell that gives the cell shape and protects it from injury is the:
A. Cell membrane.
B. Cell wall.
C. Nucleus
D. Protoplasm.

93. The scientific classification of organisms uses a system that shows:
A. Biological relationships and differences.
B. Chemical compositions.
C. Environmental processes.
D. Procariotic embolisms.

94. A group of animals within a species that has easily identifiable characteristics is called a/an:
A. Breed.
B. Cultivar.
C. Genus.
D. Variety.

95. The kingdom which includes species that have no cell walls and have ability of locomotion is:
A. Animalia.
B. Monera.
C. Plantae.
D. Zygotes.
96. The Monera kingdom includes:

A. Green moss.
B. Blue-green algae.
C. Fungi.
D. Amoeba.

97. Common members of the kingdom Protista are:

A. Amoeba, paramecia and many algae.
B. Bacteria, blue-green algae and plants.
C. Horses, cattle and fish.
D. Yeasts, mildew and mushrooms.

98. Which genus of plants include the common maple trees?

A. Acer
B. Homo
C. Picea
D. Quercus

99. A person involved in the study of the structure of the solid part of the earth and how it was formed is BEST known as a:

A. Biologist.
B. Geologist.
C. Microbiologist.
D. Technologist.
100. One complete rotation of the earth around the sun is BEST described as:

NCCTE.9_12.AE.AN51.EN14.04
RBT:

A. Diametric.
B. Equinox.
C. Revolution.
D. Solstice.

101. The surface, mantle, and core of the earth is BEST known as the:

NCCTE.9_12.AE.AN51.EN14.04
RBT:

A. Lithosphere.
B. Atmosphere.
C. Biosphere.
D. Hydrosphere.

102. The shape of the earth can BEST be described as being:

NCCTE.9_12.AE.AN51.EN14.04
RBT:

A. Equal at the equator and the pole.
B. Larger at the equator than at the pole.
C. Larger at the poles than the equator.
D. Perfectly round.

103. Volcanoes, tectonics, earthquakes and tsunamis are all examples of:

NCCTE.9_12.AE.AN51.EN14.04
RBT:

A. Earth’s internal movements.
B. Earth’s surface movements.
C. Projection.
D. Weathering.
104. The splitting of a large land mass to form continents is BEST known as:

A. Continental migration.
B. Continental drift.
C. Land formation.
D. Land evolution.

105. When can matter change from one state to another?

A. Always
B. At night
C. During daylight
D. Under certain conditions

106. Any combination of two or more different kinds of matter is called a/an:

A. Element
B. Mixture.
C. pH.
D. Pure substance.

107. An example of a change in chemical property would be:

A. The burning of wood.
B. The boiling of water.
C. The cutting of wood.
D. The freezing of water.
108. A state which has neither a definite shape or volume is said to be:
NCCTE.9_12.AE.AN51.EN15.01
RBT:

A. Altered.
B. **Gaseous.**
C. Liquid.
D. Solid.

109. The ability to do work or cause change is called:
NCCTE.9_12.AE.AN51.EN15.01
RBT:

A. **Energy.**
B. Matter.
C. Proton change.
D. Valence.

110. A substance that is the same from one sample to another is called:
NCCTE.9_12.AE.AN51.EN15.01
RBT:

A. Aerobic.
B. Mixed.
C. **Pure.**
D. Gaseous.

111. Solid materials floating in a liquid medium, such as a stream, is called a/an:
NCCTE.9_12.AE.AN51.EN15.01
RBT:

A. Element.
B. Metal.
C. Solution.
D. **Suspension.**
112. Color, shape and length are properties of a substance classified as:
NCCTE.9_12.AE.AN51.EN15.01
RBT:

   A. Altered property.
   B. Chemical property.
   C. Gaseous property.
   D. **Physical property.**

113. Kinetic energy is:
NCCTE.9_12.AE.AN51.EN15.01
RBT:

   A. The energy of composition.
   B. Stationary energy.
   C. **The energy of an object in motion.**
   D. The energy of a chemical property.

114. The smallest amount of a substance that can exist and keep its properties is BEST described as/an:
NCCTE.9_12.AE.AN51.EN15.02
RBT:

   A. Atom.
   B. Compound.
   C. Element.
   D. **Molecule.**

115. The union of two or more elements to form a substance with different qualities other than the elements alone is BEST known as a/an:
NCCTE.9_12.AE.AN51.EN15.02
RBT:

   A. Atom.
   B. **Compound.**
   C. Element.
   D. Molecule.
116. Something that cannot be broken down by chemical change is BEST described as a/an:

NCCTE.9_12.AE.AN51.EN15.02
RBT:

A. Compound.
B. Element.
C. Metal.
D. Metalloid.

117. Why is Ag the symbol for silver?

NCCTE.9_12.AE.AN51.EN15.02
RBT:

A. Ag means Agrisilver
B. The old Spanish name was augmentin
C. Silver is used in agriculture
D. The old Latin name for silver was argentum

118. The combination of chemical symbols and numbers that depict a compound is BEST described as a/an:

NCCTE.9_12.AE.AN51.EN15.02
RBT:

A. Chemical formula.
B. Chemical reaction.
C. Chemical statement.
D. Chemical replacement.

119. Chemical bonding can BEST be described as the process of:

NCCTE.9_12.AE.AN51.EN15.02
RBT:

A. Elements separating to form new elements.
B. Compounds separating to form a new compounds.
C. Elements bonding to form new compounds.
D. Molecules bonding to form new molecules.
120. During a discussion of salts in the Environmental class at Agriculture High School, the teacher told students that table salt was the most well known salt. The chemical formula for table salt is:

NCCTE.9_12.AE.AN51.EN15.03

RBT:

A. CaOH.
B. NaCl.  
C. NaOH.
D. Salt.

121. When doing a pH test on soil an interested student questioned his teacher about why the letters pH are used. He was told the letters pH mean:

NCCTE.9_12.AE.AN51.EN15.03

RBT:

A. Absolutely nothing.
B. Passive hydration.
C. Permissive handling.
D. Potential hydrogen.

122. When asked to perform a pH test on a soil sample, Melinda was curious and asked her teacher why it is really necessary to do this. She was told:

NCCTE.9_12.AE.AN51.EN15.03

RBT:

A. Alkaline soils preserve plant life.
B. Excess acid in soil kills weed seeds.
C. Plants need a pH of 5.0 to 8.0 to best grow.
D. Water flows better through acidic soil.

123. Trent was studying about acids and bases in his environmental and natural resources class. An example of a compound formed when he combined acids and bases is:

NCCTE.9_12.AE.AN51.EN15.03

RBT:

A. Acetic acid (CH₃zCO₂ H).
B. Table salt (NaCl).
C. Sulfuric acid (H₂SO₄).
D. Baking soda (NaHCO₃).
124. When doing a test to determine the salt content of a soil, Donna asked how soils can become salty if salts are not added and she was told it can happen when:

NCCTE.9_12.AE.AN51.EN15.03
RBT:

A. Acetic acid from crops reacts with the soil.
B. Chemicals in animal manure get in the soil.
C. Tree leaves containing chlorophyll decompose.
D. Water containing a base is used on an acidic soil.

125. Bryan was questioning his Agriculture teacher about the differences in the pH scale. When he asked if there was a major difference in pH readings, he was told:

NCCTE.9_12.AE.AN51.EN15.03
RBT:

A. A pH of 4 is more acidic than a pH of 9.
B. A pH of 4 is more basic than a pH of 8.
C. A pH of 4 is the same as a pH of 7.
D. A pH of 4 is less acidic than a pH of 5.

126. Hydrocarbons are substances harmful to the environment caused by:

NCCTE.9_12.AE.AN51.EN15.04
RBT:

A. Radiation.
B. Burning fossil fuels.
C. Heavy metals.
D. Spraying pesticides.

127. A common material caused by radioactivity, which poses problems for the environment, is:

NCCTE.9_12.AE.AN51.EN15.04
RBT:

A. Water.
B. Non-metal oxide.
C. Glucose.
D. Radon.
128. Synthetic detergents can cause environmental damage because they often contain:

RBT:

A. Acidifiers.
B. Pesticides.
C. Phosphates.
D. Soap.

129. The natural replacement of pine trees by hardwoods is BEST known as:

RBT:

A. Adaptation.
B. Eclectic.
C. Selection.
D. Succession.

130. A warm-blooded animals is more correctly referred to as a/an:

RBT:

A. Homeotherm.
B. Poikilotherm.
C. Natality.
D. Unilateral.

131. The study of how living organisms, such as deer, exist in their natural environment is:

RBT:

A. Biosphere.
B. Ecology.
C. Periodicity.
D. Technology.
132. Daily and seasonal describe:
   A. Natural selection.
   B. Periodicity.
   C. Succession.
   D. Homeostasis.

133. The area of the earth that supports life is most correctly called:
   A. Biosphere.
   B. Carnivore.
   C. Hemisphere.
   D. Niche.

134. Periodicity is described as the occurrence of things at:
   A. Assorted times.
   B. Nighttime.
   C. Random intervals.
   D. Regular intervals.

135. The number of different types of living things in a community is called:
   A. Diversity.
   B. Dominance.
   C. Niche.
   D. Organizations.
136. In reference to terrestrial species of animals, it can best be said that:

A. Aquatic species are better.
B. Most secrete biospheres.
C. **There is interaction with aquatic species.**
D. They only need a terrestrial environment.

137. The biome where streams flow into the ocean and the fresh and salt waters mix, is the:

A. Desert.
B. **Estuaries.**
C. Grassland.
D. Ponds.

138. In an environmental community, it can be said that:

A. Adaptation never happens.
B. Natural selection never happens.
C. Species lose their individuality.
D. **Species maintain their individuality.**

139. An omnivore can **BEST** be described as one that:

A. **Feeds on both plants and animals.**
B. Feeds only on animals.
C. Feeds only on plants.
D. Feeds on primarily soil.
140. Another name of decomposing plant and animal matter is:

NCCTE.9_12.AE.AN51.EN16.02

RBT:

A. Biomass.
B. **Detritus.**
C. Grazing chain.
D. Saprophage.

141. When rainfall is too little to support tree growth, yet is enough to support grasses, this area can be called a:

NCCTE.9_12.AE.AN51.EN16.02

RBT:

A. Desert.
B. Forest.
C. **Savanna.**
D. Tundra.

142. The word that BEST describes the function or role of a living thing within its habitat or community is best known as:

NCCTE.9_12.AE.AN51.EN16.02

RBT:

A. Biome.
B. Density.
C. **Niche.**
D. Ruminant.

143. The production of a new individual in a population is BEST known as:

NCCTE.9_12.AE.AN51.EN16.02

RBT:

A. Amorphism.
B. Distribution.
C. Mortality.
D. **Natality.**
144. The study of how populations of plants and animals affect each other in a community is BEST described as:
NCCTE.9_12.AE.AN51.EN16.02
RBT:
   A. Carnivore survival.
   B. Mortality interaction.
   C. **Population ecology.**
   D. Species structure.

145. Precipitation is formed from:
NCCTE.9_12.AE.AN51.EN17.01
RBT:
   A. Altitude.
   B. Latitude.
   C. **Moisture.**
   D. Permafrost.

146. A weather front is described as:
NCCTE.9_12.AE.AN51.EN17.01
RBT:
   A. Rain meeting snow.
   B. **Warm air meeting cold air.**
   C. Temperature meeting humidity.
   D. Fog meeting a cloud.

147. The point on the elevation of the land which lies above sea level is called:
NCCTE.9_12.AE.AN51.EN17.01
RBT:
   A. **Altitude.**
   B. Latitude.
   C. Longitude.
   D. Weather.
148. The current condition of the atmosphere including temperature, wind and moisture is:
NCCTE.9_12.AE.AN51.EN17.01
RBT:

A. Humidity.
B. Latitude.
C. Precipitation.
D. Weather.

149. The imaginary lines that run east and west on the earth and parallel to the equator are called:
NCCTE.9_12.AE.AN51.EN17.01
RBT:

A. Climate.
B. Latitude.
C. Longitude.
D. Regions.

150. The average of all the weather conditions in a location is called:
NCCTE.9_12.AE.AN51.EN17.01
RBT:

A. Climate.
B. Longitude.
C. Precipitation.
D. Relative humidity.

151. The BEST temperature range for most plants and animals to grow is:
NCCTE.9_12.AE.AN51.EN17.02
RBT:

A. 60° - 80°F.
B. 65° – 85 °F.
C. 70° - 90°F.
D. 78° – 95 °F.
152. The weather element that relates specifically to hibernation and migration and life cycles is: 

A. Altitude.
B. Pressure.
C. Temperature.
D. Wind.

153. The temperature scale used when water freezes at 0° and boils at 100° is the:

A. Celsius scale.
B. Fahrenheit (F) scale.
C. Kelvin (K) scale.
D. Weintraub (W) scale.

154. Generally, when there is high atmospheric pressure, the weather is expected to be:

A. Cold.
B. Fair.
C. Stormy.
D. Wet.

155. Which weather factor includes "planetary" and "jet stream" and is measured with an anemometer?

A. Altitude
B. Precipitation
C. Temperature
D. Wind
156. Rain, snow, sleet and hail along with the dew point are all specifically related to the weather element called:

**NCCTE.9_12.AE.AN51.EN17.02**

RBT:

A. Altitude.
B. Pressure.
C. **Humidity.**
D. Wind.

157. A MAJOR factor that affects temperature in the temperate zone is:

**NCCTE.9_12.AE.AN51.EN17.02**

RBT:

A. **Altitude.**
B. Latitude.
C. Longitude.
D. Precipitation.

158. Generally speaking, warm areas and those near large bodies of water have more:

**NCCTE.9_12.AE.AN51.EN17.02**

RBT:

A. **Precipitation.**
B. Cold weather.
C. Extreme temperature change.
D. Snow.

159. The science of soils is properly called:

**NCCTE.9_12.AE.AN51.EN18.01**

RBT:

A. Biology.
B. Dirtology.
C. **Pedology.**
D. Soilology.
160. The actual soil horizon with the MOST organic matter is the:
NCCTE.9_12.AE.AN51.EN18.01
RBT:

A. A Horizon.
B. B Horizon.
C. C Horizon.
D. R Horizon.

161. Humus consists of:
NCCTE.9_12.AE.AN51.EN18.01
RBT:

A. Clay.
B. Decomposed parent material.
C. Well decomposed organic matter.
D. Silt.

162. The O horizon in a soil profile is:
NCCTE.9_12.AE.AN51.EN18.01
RBT:

A. Not a true soil.
B. Is made up of rocks.
C. Is mostly parent material.
D. Is commonly called subsoil.

163. The A horizon of a soil profile has:
NCCTE.9_12.AE.AN51.EN18.01
RBT:

A. The most rocks.
B. The most subsoil.
C. The most organic matter.
D. The most parent material.
164. Precipitation, temperature, wind and other climate factors are referred to as:
RBT:

A. Silt.
B. Parent material.
C. Topography.
D. Weathering.

165. Decaying plants and animals in the soil are called:
RBT:

A. Clay.
B. Gravitational water.
C. Organic matter.
D. Silt.

166. The mineral and organic matter that forms soil is called:
RBT:

A. Capillary water.
B. Clay.
C. Humus.
D. Parent material.

167. While evaluating soil structure, Kevin discovered that each soil particle stood alone and did not clump together. He determined the structure to be:
RBT:

A. Blocky.
B. Platy.
C. Single grain.
D. Massive.
168. Phil used his thumb and extended forefinger to apply pressure to a clump of soil. It offered no resistance to crumbling. He determined that the consistence was:

NCCTE.9_12.AE.AN51.EN18.02
RBT:

A. Loose.
B. Friable.
C. Firm.
D. Very firm.

169. Shania found that a soil sample felt gritty and would not form a soil ribbon. She determined the texture to be:

NCCTE.9_12.AE.AN51.EN18.02
RBT:

A. Clayey.
B. Sandy.
C. Platy.
D. Loamy.

170. While evaluating soil erosion, Juan determined the erosion class to be "none to slight" because:

NCCTE.9_12.AE.AN51.EN18.02
RBT:

A. The top six inches were alike in characteristics.
B. The subsurface layer was mixed with the topsoil layer.
C. Most of the original topsoil was gone.
D. One half of the top six inches was clay.

171. When Nick was trying to determine how much fertilizer to use on his fields, he asked the County Agriculture Agent and was told that he should:

NCCTE.9_12.AE.AN51.EN18.02
RBT:

A. Use 25 pounds of fertilizer.
B. Perform a nutrient analysis or soil test.
C. Contact a fertilizer distributor.
D. Perform a plant tissue analysis.
172. When learning about soils, Jeannie was told that permeability is determined by:

RBT: 

A. Infiltration and pH.
B. **Infiltration and percolation.**
C. Profile and structure.
D. Percolation and pH.

173. In addition to determining the uses of soil and the cultural practices needed, soil texture is also used:

RBT: 

A. As a fertilizer.
B. For nutrient testing.
C. **In naming a soil.**
D. To till a soil.

174. Which statement would be true if a soil was analyzed and found to be 40% sand, 40% silt and 20% clay?

RBT: 

A. Only certain crops could be grown
B. Few crops could be grown
C. No crops could be grown
D. Practically all crops could be grown

175. While observing a specimen of soil, a student noticed that it had a grayish color. After some research, she found that the gray color could have been caused by:

RBT: 

A. Carbonic acid formation.
B. High iron content and/or organic matter.
C. Quartz parent material and excellent drainage.
D. **Wet soil and/or quartz parent material.**
176. Roy was discussing soils with his instructor and was told that granular, platy and blocky are terms sometimes used to describe soil characteristics. Which soil property was the instructor describing?

RBT:

A. Color
B. Permeability
C. Structure
D. Texture

177. Fred’s family owns steep forestland in the mountains and a home on the beach. To his surprise, he learned that the land classification for both locations was:

RBT:

A. A.
B. D.
C. II.
D. VIII.

178. If a soil was found to be 80% sand, 10% clay and 10% silt, the soil would have:

RBT:

A. Fast drainage.
B. No drainage.
C. Perfect drainage.
D. Slow drainage.

179. The MAIN type of erosion that happens on sandy soils is:

RBT:

A. Glaciers.
B. Land slippage.
C. Water.
D. Wind.
180. Of all the types of erosion, which form is the MAJOR cause of soil loss in North America?

NCCTE.9_12.AE.AN51.EN19.01

RBT:

A. Glacier erosion
B. Land slippage
C. Water erosion  
D. Wind erosion

181. When small channels form on sloping land where running water from precipitation has washed soil away, it is BEST called:

NCCTE.9_12.AE.AN51.EN19.01

RBT:

A. Gully erosion.
B. Rill erosion.  
C. Sheet erosion.
D. Slippage erosion.

182. When rill erosion is not controlled, the MAIN result is:

NCCTE.9_12.AE.AN51.EN19.01

RBT:

A. Aseptic erosion.
B. Glacial erosion.
C. Gully erosion.  
D. Sheet erosion.

183. When topsoil is removed at an excessive rate, usually caused by humans, it is BEST called:

NCCTE.9_12.AE.AN51.EN19.01

RBT:

A. Accelerated erosion.
B. Glacial erosion.
C. Natural erosion.
D. Shore erosion.
184. Land slippage is best described as soil erosion that occurs:
RBT:
   A. On level, clayey soils.
   B. On bottomlands near rivers.
   C. **On sloping, water saturated soils.**
   D. On sandy soils near the tree line.

185. Planting on the contour is a soil conservation method described as:
RBT:
   A. Making ridges of earth across a slope.
   B. **Planting across the slope of a hill.**
   C. Planting different crops from year to year.
   D. Constructing small ditches across slopes.

186. The planting of vegetation on excavated soil to hold it in place is a land treatment called:
RBT:
   A. **Cover crop.**
   B. Mulching.
   C. Silt fence.
   D. Strip cropping.

187. Not planting the same crop in the same place year after year is know as:
RBT:
   A. Conservation tillage.
   B. Diversion ditches.
   C. **Rotating crops.**
   D. Strip cropping.
188. What is it called when rows of trees are planted to prevent soil erosion on level, sandy land?
NCCTE.9_12.AE.AN51.EN19.02
RBT:

A. Conservation tillage
B. Diversion ditch
C. Strip cropping
D. Windbreak

189. The use of rip-rap, fabrics, straw, vegetation or concrete on a creek or roadside bank to prevent erosion is called:
NCCTE.9_12.AE.AN51.EN19.02
RBT:

A. Mulching.
B. Silt fence.
C. Stabilizing.
D. Waste management.

190. Planting different crops in alternate sections on sloping land is called:
NCCTE.9_12.AE.AN51.EN19.02
RBT:

A. Conservation tillage.
B. Rotating crops.
C. Strip cropping.
D. Terracing.

191. Which statement is the MOST accurate about water?
NCCTE.9_12.AE.AN51.EN20.01
RBT:

A. All water is pure
B. Water distillation is filtering
C. Water found in nature is pure
D. Water found in nature is not pure
192. What effect does water have on the temperature of the earth?

   A. It extends daylength.
   B. It has no effect.
   C. It makes it hotter.
   D. It moderates it.

193. The BEST estimate of the amount of water the average person in the United States uses every day is:

   A. 25 gallons.
   B. 45 gallons.
   C. 75 gallons.
   D. 100 gallons.

194. The BEST way to describe the chemical makeup of water is:

   A. One atom of Hydrogen and two atoms of oxygen.
   B. One atom of Helium and two atoms of oxygen.
   C. Two atoms of Hydrogen and one atom of oxygen.
   D. Two atoms of Helium and one atom of oxygen.

195. What is it called when water is boiled and the steam vapors are collected and cooled into liquid water?

   A. Aquifer
   B. Distillation
   C. Irrigation
   D. Salination
196. Which percentage BEST describes the percent of the earth’s water that is saltwater?
NCCTE.9_12.AE.AN51.EN20.01
RBT:

A. 20 percent  
B. 42 percent  
C. 79 percent  
D. 97 percent

197. A watershed can BEST be described as:
NCCTE.9_12.AE.AN51.EN20.01
RBT:

A. A land area from which all of the water that does not infiltrate the soil runs to a downhill location.  
B. An area from within the earth that collects water.  
C. A land area used to pump water to higher elevations.  
D. A device used to sanitize water for human consumption.

198. When water is stored in tanks, reservoirs or other structures, it is MOST correctly referred to as:
NCCTE.9_12.AE.AN51.EN20.02
RBT:

A. Artificial water storage.  
B. Coliform water storage.  
C. Natural water storage.  
D. Surface water storage.

199. Which term BEST describes water that is stored in a lake, sea or ocean?
NCCTE.9_12.AE.AN51.EN20.02
RBT:

A. Artificial water storage  
B. Distribution of water  
C. Natural water storage  
D. Watershed of water
200. Two common materials found in water that are BEST described as heavy metals are:

A. Bacteria and salt.
B. Lead and boron.
C. Mercury and lead.
D. Salt and iron.

201. What is the BEST reason for having water storage tanks elevated above ground?

A. Elevation protects the water supply from vandals.
B. Elevation provides pressure for water distribution.
C. Elevation keeps the water warm.
D. Elevation reduces the need for expensive water pumps.

202. The presence of suspended solid materials in water, giving it a cloudy appearance, creates a condition called:

A. Coliform.
B. Density.
C. Hardness.
D. Turbidity.

203. In addition to killing bacteria, adding chlorine to water will also:

A. Change hardness.
B. Filter water.
C. Oxidize iron.
D. Waste water.
204. A home water filtration system is also known as:
NCCTE.9_12.AE.AN51.EN20.02
RBT:
   A. FFA.
   B. HWF.
   C. IOU.
   D. POU.

205. The water surface treatment to remove large objects is BEST described as:
NCCTE.9_12.AE.AN51.EN20.02
RBT:
   A. Chlorination.
   B. Sedimentation.
   C. Filtration.
   D. Screening.

206. Ben discovered that his fish had died in his aquarium. He performed a water quality test and determined that the problem was:
NCCTE.9_12.AE.AN51.EN20.03
RBT:
   A. A slight drop in water temperature.
   B. A drop in pH to 7.5.
   C. Too little chlorine in the water.
   D. A drop in dissolved oxygen to below 3.0 ppm.

207. When evaluating water for quality, Donna was uncertain about what really determines "quality". When she researched water quality, she found that quality referred to:
NCCTE.9_12.AE.AN51.EN20.03
RBT:
   A. Hardness of the water and residue.
   B. pH of the water.
   C. Residue and pH of the water.
   D. The condition of water for a particular use.
208. Alan observed that the color of the stream had changed. His observation is best described as a type of physical monitoring called:

RBT:

A. Odor detection.
B. Stream change of direction.
C. Visual monitoring.
D. Audio monitoring.

209. Small pieces of material in the air similar to dust and liquid droplets are BEST known as:

RBT:

A. Gases.
B. Oxides.
C. Particulate matter.
D. Photochemical matter.

210. The MOST common way that air pollution is moved across large areas is:

RBT:

A. Cars.
B. Humans.
C. Streams.
D. Weather fronts.

211. The BEST example of air pollution that affects wildlife, especially fish, is:

RBT:

A. Acid rain.
B. Asphyxiation.
C. Odor.
D. Ozone depletion.
212. When the body is not getting adequate oxygen, the condition is BEST described as:
NCCTE.9_12.AE.AN51.EN21.01
RBT:

A. Asphyxiation.
B. Diabetes.
C. Halitosis.
D. Respiration.

213. The two MAJOR types of air pollutants are:
NCCTE.9_12.AE.AN51.EN21.01
RBT:

A. Bacteria and fungi.
B. Gases and carbon dioxide.
C. Suspended solid particles and oxygen.
D. Suspended solid particles and gases.

214. The GREATEST problems of air pollution are caused by:
NCCTE.9_12.AE.AN51.EN21.01
RBT:

A. Animals.
B. Humans.
C. Nature.
D. Water.

215. The MAJOR effect of air pollution on the climate has been:
NCCTE.9_12.AE.AN51.EN21.01
RBT:

A. The greenhouse effect.
B. The global climate effect.
C. Eutrophication.
D. The standard cosmological model.
216. Which two variables BEST explain the difficulty of testing air quality?

A. Air is invisible and odorless.
B. Air density and sampling techniques may vary.
C. Air is invisible and readily moves about.
D. Air content and pressure vary.

217. The reusing and recycling method of controlling air pollution is BEST described as:

A. Using new products to control pollution.
B. Containing and reducing the release of pollutants caused by manufacturing.
C. Releasing the fumes and gases from factories into the air.
D. Using coal to generate power for factories.

218. A catalytic converter on a car and a scrubber used on a smokestack:

A. Control emissions.
B. Damage ecosystems.
C. Increase recycling.
D. Create particulate matter.

219. The BEST example of using alternative methods to reduce air pollution is:

A. Catalytic converter use.
B. Integrated pest management.
C. Recycling glass.
D. Ventilation.
220. Dimension measurement can BEST be described as measuring:
NCCTE.9_12.AE.AN51.EN21.02
RBT:

A. Solid air particulates.
B. Air volume.
C. Air density.
D. Gaseous air particulates.

221. The air quality measurement method that is used to measure the concentration of a pollutant in the air is BEST known as:
NCCTE.9_12.AE.AN51.EN21.02
RBT:

A. Dimension measurement method.
B. Fumigation measurement method.
C. Volume per volume method.
D. Weight per volume method.

222. If a waste is determined to be ignitable, corrosive, reactive, or toxic and poses a potential danger to humans, it is classified as:
NCCTE.9_12.AE.AN51.EN22.01
RBT:

A. Household waste.
B. Hazardous waste.
C. Industrial waste.
D. Municipal waste.

223. Tracey decided to determine the public’s opinion on the worst environmental problem in the world today. Her research found the problem to be:
NCCTE.9_12.AE.AN51.EN22.01
RBT:

A. Air pollution.
B. Global warming.
C. Pesticide use.
D. Waste management.
224. Mr. Johnson lead his class in a discussion about the sources of waste in the United States. After much debate students determined the WORST solid waste problem came from the production of:

NCCTE.9_12.AE.AN51.EN22.01
RBT:

A. Food.
B. Paper.
C. Plastic.
D. Wood.

225. A local county landfill that uses the six natural mechanisms of adsorption, biological removal, ion exchange, dilution, filtration and chemical precipitation is called:

NCCTE.9_12.AE.AN51.EN22.02
RBT:

A. Containment landfill.
B. Hazardous waste landfill.
C. Natural Attenuation landfill.
D. Recycling landfill.

226. While visiting her county landfill, Susan found that the site had liners and collection pipes to drain water. Based on her studies in natural resources, she determined that the site was a:

NCCTE.9_12.AE.AN51.EN22.02
RBT:

A. Natural attenuation landfill.
B. Containment landfill.
C. At-grade landfill.
D. Recycling landfill.

227. Mr. Howard’s class worked on a group project to investigate the use of recycling in their community. After much research and discussion, they found that the MAJOR reason to practice recycling is that recycling is:

NCCTE.9_12.AE.AN51.EN22.02
RBT:

A. Cheaper than solid waste disposal.
B. Easier than solid waste disposal.
C. More difficult than solid waste disposal.
D. More expensive than solid waste disposal.
228. The pond management factor that BEST describes the area that drains into a pond is:
NCCTE.9_12.AE.AN51.EN23.01
RBT:

A. Dam.
B. Pond bank.
C. Pond basin.
D. Watershed.

229. The littoral zone in a lake is BEST described as:
NCCTE.9_12.AE.AN51.EN23.01
RBT:

A. Shallow with rooted vegetation.
B. Deep with no vegetation.
C. The area in the middle of the lake.
D. Bottom zone of the lake.

230. Lake management techniques such as draining and poisoning, are methods PRIMARILY used in:
NCCTE.9_12.AE.AN51.EN23.01
RBT:

A. Fertilization.
B. Fish sampling.
C. Pond development.
D. Population adjustment.

231. The best MINIMUM depth for an embankment pond is:
NCCTE.9_12.AE.AN51.EN23.01
RBT:

A. 2 feet.
B. 6 feet.
C. 12 feet.
D. 25 feet.
232. The water conditions of 68° F or greater, adequate oxygen and a pH of 6.5 to 9.0 are BEST for:
NCCTE.9_12.AE.AN51.EN23.01
RBT:

A. Cover crop production.
B. Boating.
C. Fish production.
D. Vegetation growth.

233. When a lake or pond is used for fish production, it is especially important to consider:
NCCTE.9_12.AE.AN51.EN23.01
RBT:

A. Cover crops.
B. Safety equipment.
C. Soil characteristics.
D. Water quality.

234. Which fish is native to North Carolina and is also called papermouth, calico bass, and speckled perch?
NCCTE.9_12.AE.AN51.EN23.02
RBT:

A. Black crappie
B. Bluegill
C. Catfish
D. Trout

235. Which fish species is characterized by a pan shaped body with black blotches at the base of the dorsal fins?
NCCTE.9_12.AE.AN51.EN23.02
RBT:

A. Bluegill
B. Brook trout
C. Rainbow trout
D. Small mouth bass
236. A species of fish native to the pollution free, higher elevation streams and brooks of Western North Carolina is the:

NCCTE.9_12.AE.AN51.EN23.02

RBT:

A. Bluegill.
B. **Brook trout.**
C. Catfish.
D. Large mouth bass.

237. What is another name for the silver-green, black blotched speckled perch?

NCCTE.9_12.AE.AN51.EN23.02

RBT:

A. **Black crappie**
B. Bluegill
C. Large mouth bass
D. Rainbow trout

238. Which species of fish prefer cool, clear streams with gravel bottoms and have a broad pink band along its sides?

NCCTE.9_12.AE.AN51.EN23.02

RBT:

A. Black crappie
B. Bluegill
C. **Rainbow trout**
D. Small mouth bass

239. Which freshwater game fish is so popular that the industry has created specialized gear for catching them?

NCCTE.9_12.AE.AN51.EN23.02

RBT:

A. Crappie
B. **Large mouth bass**
C. Small mouth bass
D. Trout
240. When compared to other bodies of water, the nutrient content of estuary water is:

   A. Much less.
   B. **Much more.**
   C. Slightly more.
   D. The same.

241. The concentration of sodium, chlorine, magnesium and potassium in the water is called:

   A. Alkalinity.
   B. Density.
   C. **Salinity.**
   D. Acidity.

242. Because of the conditions and location of estuaries, what percent of the marine fish harvested by American fisheries either comes from or passes through the estuarine ecosystem?

   A. 25%
   B. 60%
   C. **90%**
   D. 100%

243. What characteristic of ocean water averages 35%?

   A. Barometric pressure
   B. Humidity
   C. pH
   D. **Salinity**
244. When the amount of dissolved oxygen in the waters of an estuary is compared to the oxygen level in other waters, the amount is:

A. Much less.
B. Much greater.
C. Slightly less.
D. The same.

245. Because of the high level of dissolved oxygen found in the waters of estuaries, what else is normally found there?

A. Bacteria
B. Currents
C. pH
D. Salinity

246. In terms of miles, sovereign rights over the continental shelf by coastal states can best be described as being:

A. 2 miles from the shore.
B. 20 miles from the shore.
C. 200 miles from the shore.
D. 2000 miles from the shore.

247. Which description BEST represents the change in aquaculture production from 1988 to 1998?

A. Doubled
B. Quadrupled
C. Tripled
D. Stayed the same
248. What is the BEST name for the 200 nautical mile zone where coastal states have sovereign rights?
NCCTE.9_12.AE.AN51.EN24.02
RBT:

A. Economic Estuary Zone
B. Estuarine Edible Zone
C. Exclusive Economic Zone
D. Exclusive Estuary Zone

249. Water is important to wildlife because the bodies of game animals are:
NCCTE.9_12.AE.AN51.EN25.01
RBT:

A. 20-40 percent.
B. 50-60 percent.
C. 60-80 percent.
D. 90-100 percent.

250. The basic requirements of food, cover, water, territory, and home range are collectively called:
NCCTE.9_12.AE.AN51.EN25.01
RBT:

A. Carrying capacity.
B. Density.
C. Habitat.
D. Predators.

251. The amount of essentials of life for game that is provided by a given land area is:
NCCTE.9_12.AE.AN51.EN25.01
RBT:

A. Carrying capacity.
B. Population density.
C. Predator control.
D. Stocking advisory.
252. The control of animals that feed on game animals is called:
NCCTE.9_12.AE.AN51.EN25.01
RBT:

A. Artificial stocking.
B. Density control.
C. Hunting regulations.
D. Predator control.

253. Two common methods for habitat development are woodland management and:
NCCTE.9_12.AE.AN51.EN25.01
RBT:

A. Artificial stocking.
B. Fence row plantings.
C. Refuges.
D. Wildlife hunting.

254. Animals that are in the amphibious habitat can live:
NCCTE.9_12.AE.AN51.EN25.01
RBT:

A. On land and in the water.
B. Only on land.
C. Only in water.
D. Only in forests.

255. One way a farmer can help improve game management is to stop:
NCCTE.9_12.AE.AN51.EN25.01
RBT:

A. Crop growth.
B. Fertilizer use.
C. Plowing fields.
D. Woodland grazing.
256. In which habitat do wading birds belong?
NCCTE.9_12.AE.AN51.EN25.01
RBT:
   A. Amphibious.
   B. Land.
   C. Terrestrial.
   D. Woodland.

257. Predator animals can be useful to wildlife management by:
NCCTE.9_12.AE.AN51.EN25.01
RBT:
   A. Draining water supply.
   B. Killing weak animals.
   C. Creating disease.
   D. Using the food supply.

258. The survival of animals, such as bears and wildcats, was once threatened because:
NCCTE.9_12.AE.AN51.EN25.02
RBT:
   A. They were being killed as sport.
   B. People wanted their fur.
   C. People wanted their meat.
   D. They appeared hostile.

259. A program in North Carolina designed to educate people about migratory birds, train people to monitor
    birds, and better appreciate birds is BEST known as:
NCCTE.9_12.AE.AN51.EN25.02
RBT:
   A. Better Bird Council.
   B. Ducks Unlimited.
   C. Partners in Flight.
   D. Trained Birders.
260. The extinction or endangerment of animals has been the result of:

   A. Using more accurate firearms.
   B. Killing animals faster than they multiply.
   C. Having more highways in rural areas.
   D. Having more deadly animal diseases.

261. Which agency is PRIMARILY responsible for providing assistance to landowners in regard to monitoring the habitat of bog turtles and salamanders?

   A. Department of Agriculture
   B. Department of Public Instruction
   C. State Highway Patrol
   D. Wildlife Resource Commission

262. Most recently, what is the MOST accurate amount of grant money given to North Carolina to do wildlife conservation projects?

   A. Almost one thousand dollars
   B. Almost ten thousand dollars
   C. Almost two million dollars
   D. Almost twenty million dollars

263. The MOST appropriate name for conservation programs that determine the current wildlife situation is:

   A. Checking.
   B. Monitoring.
   C. Photographing.
   D. Watching.
264. If an environmental education class were to visit a marshy area near the coast, what species of birds would they most likely see?

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. **Canada goose, osprey and duck**  
B. Eastern bluebird, mourning dove and crow  
C. Red-tail hawk, crow and hummingbird  
D. Turkey vulture, hummingbird, and wood thrush

265. If a student observing birds notices a Canada Goose, Mallard Duck, Osprey, and a Bald Eagle, chances are the habitat is:

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. In a dense woods.  
B. In an open field.  
C. **Near a body of water.**  
D. On the ocean.

266. Jennie was outside enjoying nature. She was specifically looking to identify bird species that live near her home. During her time outside, Jeannie observed a Red-tail Hawk, Bobwhite Quail, Eastern Bluebird and a Mourning Dove. What habitat was Jeannie near?

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. **Edge of woods**  
B. Open field  
C. Wetlands  
D. Woodland

267. If a student observes a gray squirrel, bobcat, and black bear, he/she is MOST likely in a/an:

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. Brook.  
B. **Hardwood forest.**  
C. Pasture.  
D. Swampland.
268. Which type of animal habitat are you most likely to find a Red fox, a Cottontail rabbit, and a Woodchuck?

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. Forest
B. Pastures
C. Swampland
D. Water

269. Trent and Ben decided to do a class project to identify species of birds in the dense woods near their home. During their time in the woods, they found:

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. Bobwhite quail, Eastern bluebird and Ospreys.
B. Crow, Mallard duck and Mourning dove.
C. Red-tail hawk, Bald eagle and Osprey.
D. Turkey vulture, Hummingbird, and Wood thrush.

270. Jack was bird watching in an open field. The bird species most likely to be seen would be:

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. Mallard duck.
B. American crow.
C. Wood thrush.
D. Turkey.

271. A group of interested students decided to make a list of the animals that would be LEAST likely to be seen on a series of nature hikes in the state forest. Which group of animals would most likely be on the list?

NCCTE.9_12.AE.AN51.EN26.01

RBT:

A. Deer and chipmunk
B. Gray Squirrel and rabbit
C. Mink and beaver
D. Woodchuck and fox
272. During a hike with his friends, Doug saw a beaver and a muskrat. Which habitat was he MOST likely near?
NCCTE.9_12.AE.AN51.EN26.01
RBT:
A. Farmland
B. Hardwood Forest
C. Pasture
D. Stream

273. Which animal helps keep mice and rat populations down because of its appetite for rodents?
NCCTE.9_12.AE.AN51.EN26.02
RBT:
A. Beaver
B. Bobcat
C. Deer
D. Red fox

274. Two bird species that are sensitive to environmental problems such as pesticide use and pollution are:
NCCTE.9_12.AE.AN51.EN26.02
RBT:
A. Bobwhite quail and vulture.
B. Canada goose and American crow.
C. Osprey and Eastern bluebird.
D. Wood duck and mourning dove.

275. Which animal is known to be the MAIN carrier of rabies in North America?
NCCTE.9_12.AE.AN51.EN26.02
RBT:
A. Deer
B. Elk
C. Skunk
D. Woodchuck
276. Which species of birds, in addition to being a game bird, also is know for eating weed seeds from fields?
NCCTE.9_12.AE.AN51.EN26.02
RBT:

A. Crow
B. **Mourning dove**
C. Osprey
D. Turkey vulture

277. The animal MOST likely to cause damage to the dams and dikes of an aquaculture operation is the:
NCCTE.9_12.AE.AN51.EN26.02
RBT:

A. Beaver.
B. Grey Fox.
C. Mink.
D. **Muskrat.**

278. The animal that is MOST likely to cause overall damage to agriculture by eating both field and nursery crops is the:
NCCTE.9_12.AE.AN51.EN26.02
RBT:

A. Beaver.
B. **Deer.**
C. Red fox.
D. Woodchuck.

279. The animals that someone is LEAST likely to see out in the wild are:
NCCTE.9_12.AE.AN51.EN26.02
RBT:

A. **Bobcat and Virginia opossum.**
B. Mink and Red fox.
C. Muskrat and deer.
D. Red fox and squirrel.
280. Two species of birds that have been known to suffer from woodlands being cut are:

NCCTE.9_12.AE.AN51.EN26.02
RBT:

A. Barned owl and crows.
B. Bluebird and red-tail hawk.
C. Osprey and quail.
D. Wood thrush and turkey vulture.

281. Which two animals are MOST likely to include a farmer’s small animals in their diet?

NCCTE.9_12.AE.AN51.EN26.02
RBT:

A. Beaver and bobcat
B. Cottontail rabbit and woodchuck
C. Red Fox and grey squirrel
D. Virginia opossum and skunk

282. One agricultural and environmental impact of forests is the:

NCCTE.9_12.AE.AN51.EN28.01
RBT:

A. Conserving of soil and water.
B. Providing of lumber for homes.
C. Providing of homes for wildlife.
D. Providing of nature areas for people.

283. The BEST protector of soil that conserves soil and water is:

NCCTE.9_12.AE.AN51.EN28.01
RBT:

A. Concrete.
B. Forest.
C. Tar.
D. Vegetable crops.
284. In recent years, forest production has increased and the area of forested land has:
NCCTE.9_12.AE.AN51.EN28.01
RBT:

A. Decreased a lot.
B. Decreased a little.
C. Increased a lot.
D. Stayed the same.

285. Because of transpiration, trees in a forest affect the climate by:
NCCTE.9_12.AE.AN51.EN28.01
RBT:

A. Warming the air temperature.
B. Providing rainfall.
C. Cooling the air temperature.
D. Providing shade.

286. The part of the trunk that provides protection from drying is the:
NCCTE.9_12.AE.AN51.EN28.02
RBT:

A. Cambium.
B. Heartwood.
C. Sapwood.
D. Outer bark.

287. Another name for sapwood is:
NCCTE.9_12.AE.AN51.EN28.02
RBT:

A. Cambium.
B. Heartwood.
C. Phloem.
D. Xylem.
288. The part of the tree responsible for taking in water and nutrients is the:
NCCTE.9_12.AE.AN51.EN28.02
RBT:

A. Crown.
B. **Roots.**
C. Sapwood.
D. Trunk.

289. A large, valuable forest tree with star-shaped leaves and also known as a red gum is the:
NCCTE.9_12.AE.AN51.EN29.01
RBT:

A. American holly.
B. Red oak.
C. **Sweet gum.**
D. Tupolo gum.

290. A deciduous conifer growing in swamps that are flooded for a long time is:
NCCTE.9_12.AE.AN51.EN29.01
RBT:

A. **Bald cypress.**
B. Fraser fir.
C. Red pine.
D. Tupelo gum.

291. The largest conifer of eastern North America with needles growing in clumps of five is the:
NCCTE.9_12.AE.AN51.EN29.01
RBT:

A. Black walnut.
B. Red cedar.
C. Sweetgum.
D. **White pine.**
292. An evergreen tree with shiny green leaves and red berries is the:

RBT:

A. American holly.
B. Black oak.
C. Red maple.
D. Willow oak.

293. A hardwood tree with leaves that are five to nine inches long with seven to nine rounded deep lobes is the:

RBT:

A. Beech.
B. Hickory.
C. Loblolly pine.
D. White oak.

294. Which hardwood tree can have leaves with irregularly shaped lobes and pointed tips or can have pear-shaped leaves with three rounded lobes at the outer end?

RBT:

A. American holly
B. Loblolly pine
C. Southern red oak
D. Sweetgum

295. Bryan harvested timber and had it cut at the local sawmill. He had 50 pieces 2" x 6" x 10' and 10 pieces 1" x 10" x 12'. What is the total board feet in this lumber?

RBT:

A. 20
B. 51
C. 510
D. 600
296. How many 16 foot logs would be in a tree with a merchantable height of 64 feet?

RBT:

A. 3
B. 4
C. 5
D. 7

297. How many cords of wood would be in a 16' x 16' x 4' stack of wood?

RBT:

A. 4
B. 6
C. 7
D. 8

298. How many 16' merchantable logs are in a 56' tree?

RBT:

A. 2
B. 3.5
C. 7
D. 12

299. Measuring a tree with a forestry tool 66' from the tree and 25'' from the eye indicates that the forester is using a:

RBT:

A. Caliper.
B. Biltmore stick.
C. Tree diameter tape.
D. Circumference tape.
300. A tree that is 12" in diameter (dbh) is considered to be:
NCCTE.9_12.AE.AN51.EN29.02
RBT:

A. 10" in diameter at 3' above the ground.
B. 12" in diameter at 4 ½' above the ground.
C. 12" in diameter at 5' above the ground.
D. 11" in diameter at 7' above the ground.

301. Removing dominant taller trees from a timber stand is called:
NCCTE.9_12.AE.AN51.EN29.03
RBT:

A. Liberation.
B. Sanitation cutting.
C. Shelter wood cutting.
D. Thinning.

302. The MOST certain and quickest way to reproduce trees in a forest is:
NCCTE.9_12.AE.AN51.EN29.03
RBT:

A. Cuttings.
B. Direct seeding.
C. Natural.
D. Seedling planting.

303. Sanitation cutting is a management practice that involves:
NCCTE.9_12.AE.AN51.EN29.03
RBT:

A. Removing injured or diseased trees from the forest.
B. Removing, dominant, taller trees.
C. Harvesting all trees at one time.
D. Harvesting the trees in two or three operations.
304. Leaving some standing tree’s after harvest to shelter the sprouts or suckers produced by a tree stump and to encourage vegetative regeneration is called:

NCCTE.9_12.AE.AN51.EN29.03

RBT:

A. Coppice cutting.
B. Liberation.
C. Seed tree cutting.
D. Thinning.

305. Removing injured, diseased or insect infested trees from a forest is called:

NCCTE.9_12.AE.AN51.EN29.03

RBT:

A. Liberation.
B. Prescription burning.
C. Sanitation cutting.
D. Shelter wood cutting.

306. What is the name of the management practice used when a mature forest is harvested in two or three stages, leaving some to produce seeds:

NCCTE.9_12.AE.AN51.EN29.03

RBT:

A. Salvage cutting.
B. Selective cutting.
C. Shelterwood cutting.
D. Thinning.

307. When all the trees in a stand are cut at one time, it is called:

NCCTE.9_12.AE.AN51.EN29.03

RBT:

A. Clear cutting.
B. Coppice cutting.
C. Selective cutting.
D. Shelterwood cutting.
308. Which type of Supervised Agricultural Experience requires a written training agreement signed by the student, parent or guardian, teacher and employer or supervisor?

RBT:

A. Exploratory
B. Improvement
C. Placement
D. Supplementary

309. An example of an analytical Supervised Agricultural Experience is:

RBT:

A. Conducting a scientific experiment.
B. Making a marketing display.
C. Painting park benches.
D. Producing timber.

310. Which type of Supervised Agricultural Experience includes planning, implementing, operating and assuming financial risks to produce tilapia?

RBT:

A. Analytical
B. Entrepreneurship
C. Improvement
D. Placement

311. Which is a type of Supervised Agricultural Experience?

RBT:

A. Career Development Event
B. Club officer
C. Exploratory
D. Renewal
312. The PRIMARY purpose of the Supervised Agricultural Experience part of the natural resources program is to:
NCCTE.9_12.AE.AN51.EN07.01
RBT:

A. Develop leadership.
B. **Gain work experience.**
C. Make money.
D. Receive proficiency awards.

313. The component of the natural resources program which has as its PRIMARY purpose for students to gain work experience is the:
NCCTE.9_12.AE.AN51.EN07.01
RBT:

A. Classroom.
B. FFA.
C. Field trips.
D. **Supervised Agricultural Experience.**