CAPTAINS TRYOUTS 2018 ECOLOGY KEY (WVHS)

1) B
2) A
3) C
4) C
5) D
6) B
7) A
8) C
9) D
10) A
11) C
12) B
13) C
14) A
15) C
16) B
17) D
18) B
19) C
20) D

1. A is better equipped for desert conditions. (1 point)
   a. Optional reasonings (1 point per reason, 2 total)
      i. Spines protect from animal interference
      ii. Leaves are able to store water
      iii. Fewer leaves = less evaporation
      iv. No annual loss and growth of leaves, less energy required
         1. **Total - 3 points**
2. Optional reasons (1 point per reason, 2 total)
   a. Large ears - cool blood and lower body temp
   b. Large ears - effective hearing against predators in the desert
   c. Large legs - efficient movement through sand
   d. Small size - easy to hide and find shelter
      i. **Total - 2 points**
3. Food web (1 point per organism with correct consumption, 5 total)
   a. Grass on bottom
   b. Beetles consume grass
   c. Zebra consumes grass
   d. Fox consumes BOTH beetle and grass
   e. Lion consumes BOTH fox and zebra
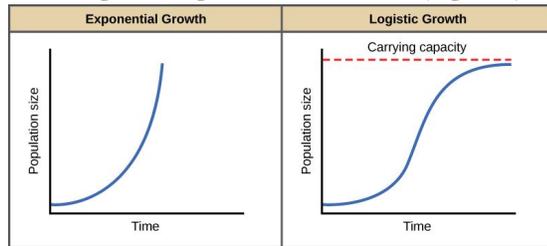
        i. **Total - 5 points**

4. Correct answer - 14 years (1 point)
   a. WORK SHOWN (1 point)
          i. **Total - 2 points**
5. Definition - a species upon which multiple ecosystem species depend upon (1 point)
   a. Characteristics - provide food for others, provide shelter, provide indication of a failing ecosystem (first to be harmed) (1 point)
   b. Examples - bison, kelp, otters, sea stars, beavers, elephants, hummingbirds (there are others). (1 point for any viable example)
          i. **Total - 3 points**
6. R example - prairie dog, any insect, mice, etc. (1 point)
   a. K example - elephants, lions, etc. (1 point)

   b.
   c. Correct r selected species graph (1 point)
   d. Correct k selected species graph (1 point)
          i. **Total - 4 points**