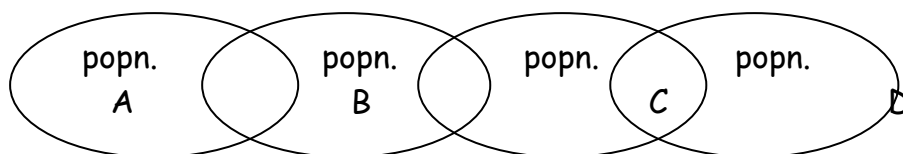


## Higher Biology

### Natural Selection and Speciation Checktest

1. Explain the meaning of the following terms:
  - (a) Species
  - (b) Gene pool
  - (c) Gene flow
2. Why do organisms tend to produce more offspring than the environment can support?
3. Explain how a mutation could result in a new phenotype emerging within a population.
4. What is the term used to describe the "weeding out" of weaker organisms?
5. Explain why the dark form of the peppered moth had a selective advantage over the light form in the 1950's.
6. Name the **three** types of isolating mechanisms and give an example of each.
7. What role does an isolating mechanism play in the process of speciation?
8. If a population is split and each population separated, at what point can it be stated that they have evolved into separate species?
9. In the diagram below, how many species are there? Justify your answer.



10. State **two** points, which suggest that the evolution of Darwin's finches is an example of adaptive radiation.