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## **1.** What are the different ways in which individuals with a particular trait may increase in a population?

An individual attribute could increase in a population within the following 2 ways:- (a) **Natural selection:** if an attribute is useful to a population, it'll increase naturally.

As an example – inexperienced colorize beetles is favorable because it helps them in camouflage against the predators.

(b) Genetic drift: if a population faces AN accident such majority of its members get killed, the remaining members can pass away their traits to the following generations. This may result in a rise of the attribute within the population.

### 2. Why are traits acquired during the life-time of an individual not inherited?

The non-inheritable traits don't effect on the genetic makeup of an individual; thus they're not transferred to or familial by the longer term generations.

# **3.** Why are the small numbers of surviving tigers a cause of worry from the point of view of genetics?

As the tiger population is decreasing sharply, the genetic pool of the tigers is additionally decreasing. This results in a limitation on the variations which will be introduced within the genetic makeup of the tigers. This might need serious implications. For example, if a un-wellness spreads within the tiger population, it would swipe the whole population while not going any survivors. This might even cause their extinction.

### 4. What factors could lead to the rise of a new species?

Factors that would cause the increase of a brand new species are as follows:

#### (a) Natural activity.

- (b) Method of genetic drift.
- (c) Mutation.
- (d) Geographical isolation.
- (e) Environmental factors on the isolated populations.
- $\left(f\right)$  Generative isolation for a protracted time.
- (g) Quantum of genetic variant transmissible from one generation to the following generation.