

Date  
12th May 2020

Page No. :- 01

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Question 59 :- Neoteny ko classify karke hue sachitra vachan kare?

Answer :-

Neoteny (Nipitanii), also called juvenilization, is the delaying or showing of the physiological <sup>core</sup> somatic development of an organism, typically an animal. Neoteny is found in modern humans. In progenesis (also called paedogenesis), sexual development is accelerated.

Both neoteny and progenesis result in paedomorphism (or paedomorphosis), a type of heterochrony. Some authors define paedomorphism as the retention of larval traits, as seen in salamanders.

Both neoteny and progenesis cause the retention in adults of traits previously seen only in the young. Such retention is important in evolutionary biology, domestication and evolutionary developmental biology.

10/12/2020

Page No. :- 02

Final  
PAGE NO  
DATE

## History and etymology :-

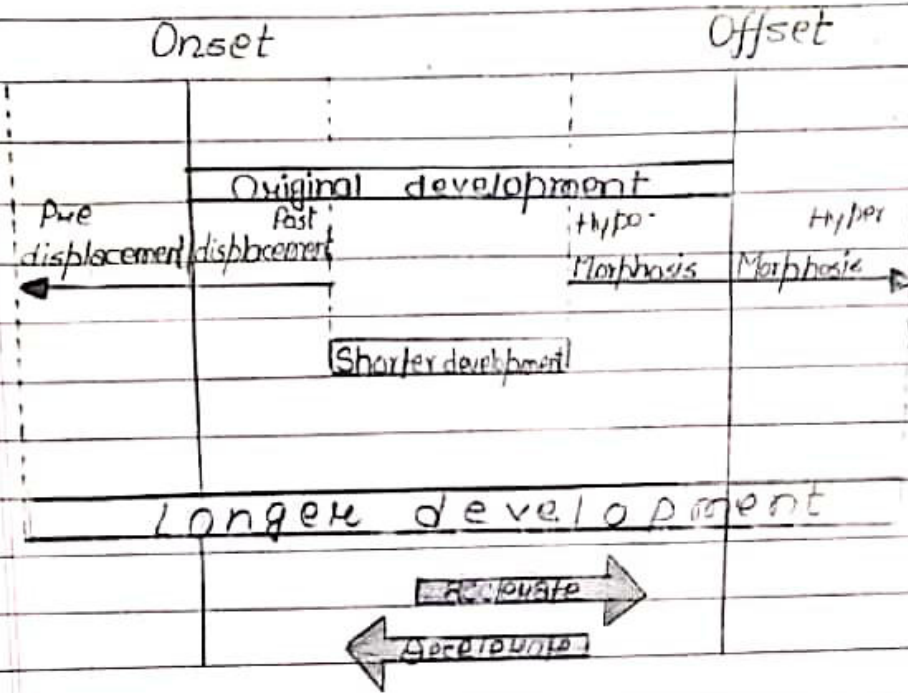


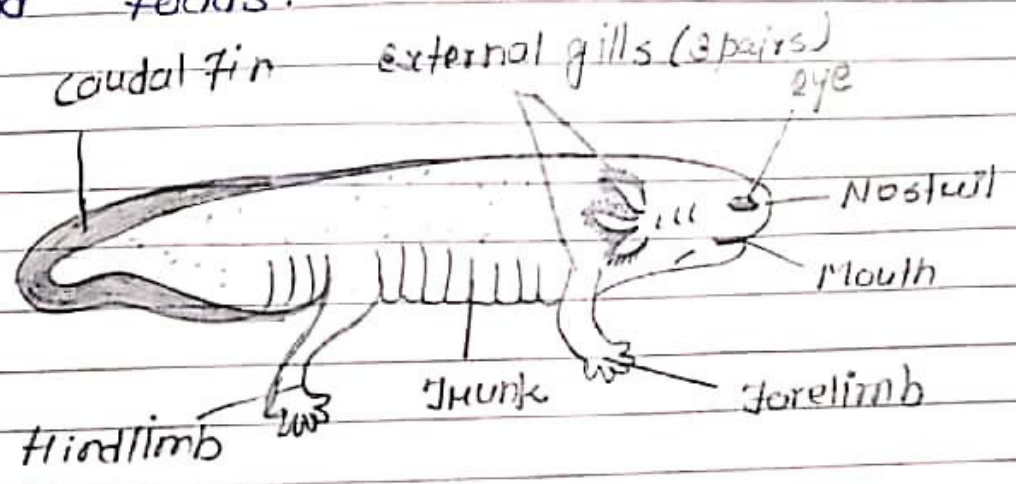
Diagram of six types of shift in heterochrony, a change in the timing or rate of any process in embryonic development. Prodisplacement, hypermorphosis, and acceleration (red) extend development (peromorphosis); postdisplacement, hypomorphosis, and deceleration (blue) all truncate it (paedomorphosis).

The origins of the concept of heterochrony have been traced the Bible (as argued by Ashley Montagu) and to the poet William Wordsworth's "The child is the father of the man" (as argued by Barry Bogin). The term itself was invented in 1885 by Julius Kalkmann as

Date  
17th May, 2020

Page No. :- 03

he described the axolotl's maturation while remaining in a tadpole-like aquatic stage complete with gills, unlike other adult amphibians like frogs and toads.



Axolotl larva of *Amblystoma tigrinum* (tiger salamander)

In domestic animals :-

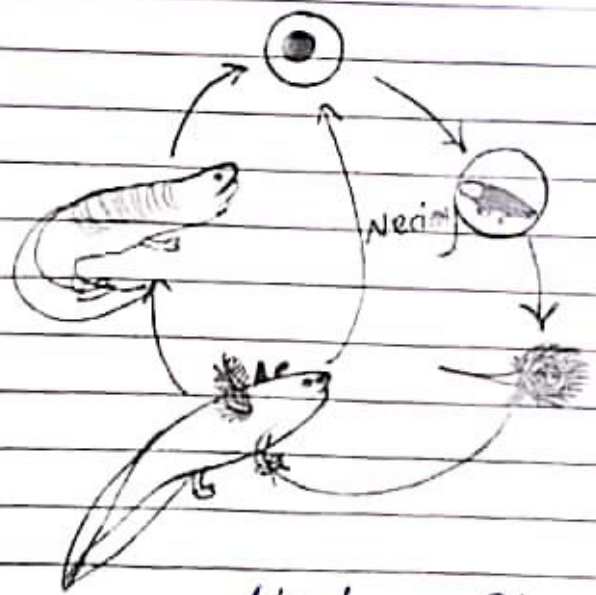
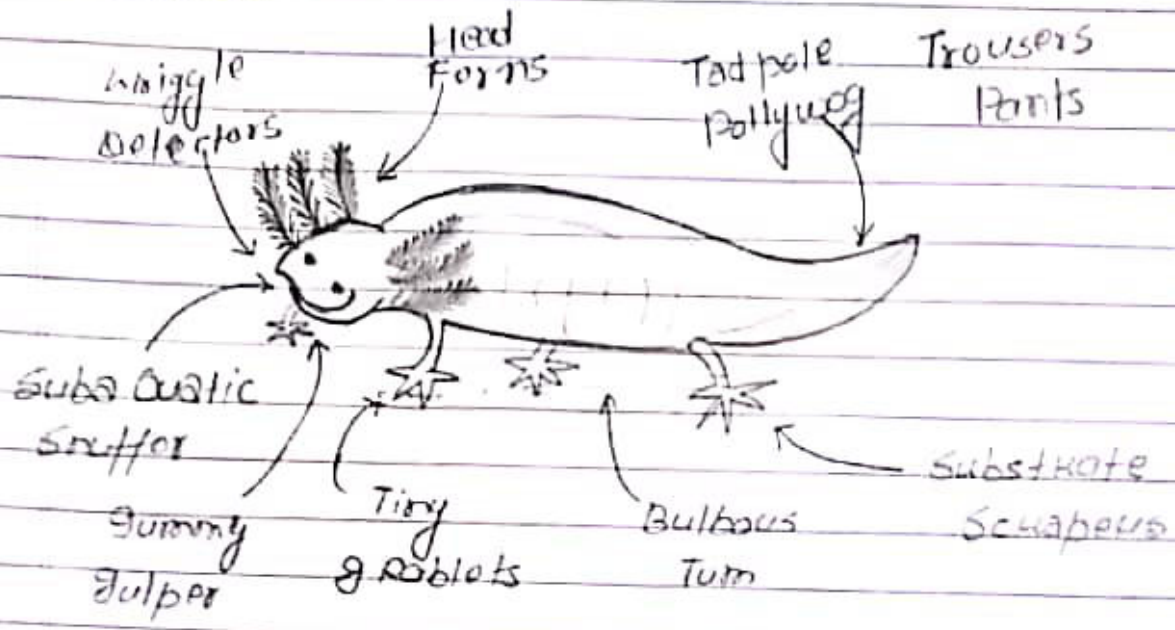
Neoteny is seen in domesticated animals such as dogs and mice. This is because there are more resources available, less competition for those resources, and with the lowered competition the animals expend less energy obtaining those resources. This allows them to mature and reproduce more quickly than their wild counterparts. The environments that domesticated animals are raised in determines

Date  
12.05.2020

Page No. :- 04

Animal

whether or not neoteny is present in those animals.



Neoteny Diagram