

Types of chromosomes

① Types of chromosomes based on number of centromere.

② Types of chromosomes based on position of centromere.

① Types of chromosomes based on number of centromere -

→ usually there are two centromere one on each chromatid but there may be more or none depending upon the number of centromere, the chromosomes may be -

① Monocentric → with one centromere.

② Dicentric → with two centromere, one in each chromatid.

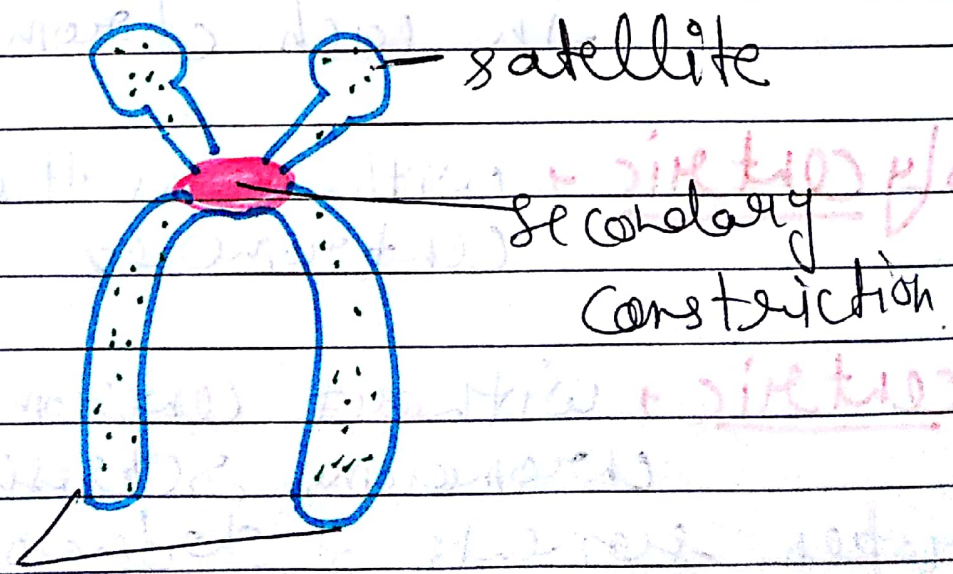
③ Polycentric → with more than two centromeres

④ Acentric → without centromere, such chromosomes represent freshly broken segments of chromosomes which do not survive for long.

⑤ Diffused or nonlocated - with centromere diffused throughout the length of chromosome. The microtubules of spindle fibres are attached to chromosome arms at many points. The diffused centromeres are found in insects, some algae and some groups of plants.

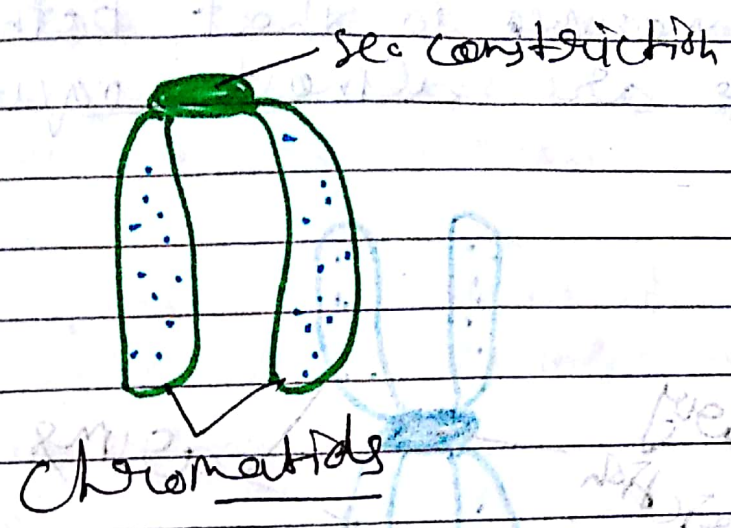
2. Types of chromosomes based on position of centromere -

① Acrocentric - are rod-shaped chromosomes with centromere occupying a terminal position. One arm is very long and the other is absent.

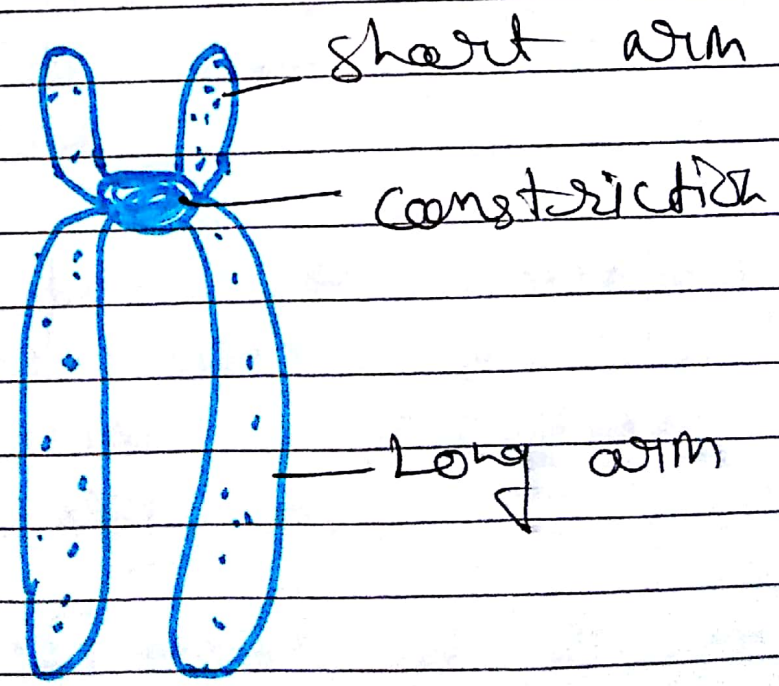


arms of chromosome

② Telocentric - are rod-shaped chromosomes having subterminal centromeres.



③ Submetacentric - are S-shaped chromosomes with centromeres slightly away from the mid-point so that the two arms are unequal.



(4)

Metacentric - are V-shaped chromosomes in which centromere lies in the middle of chromosome so that both or two arms are almost equal.

