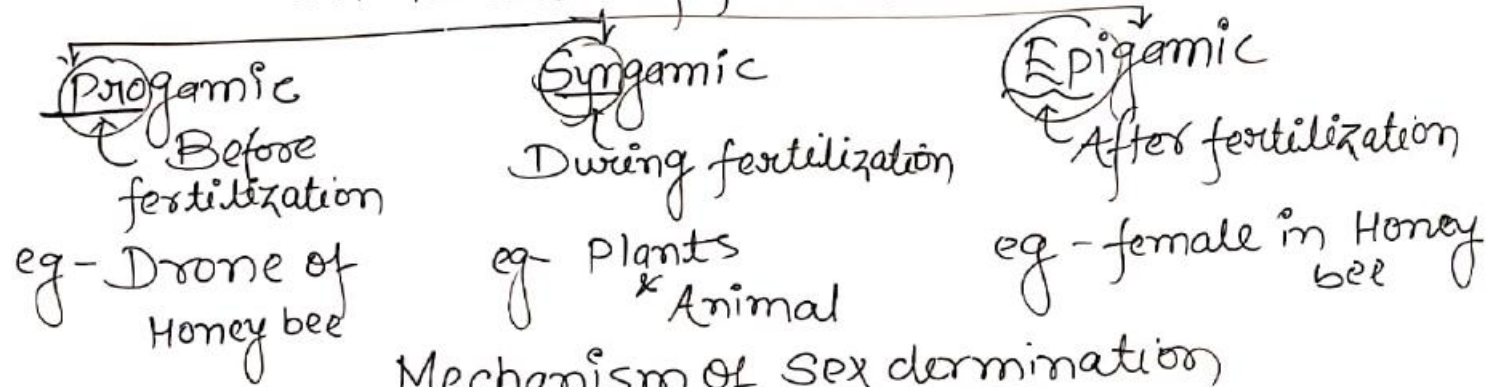
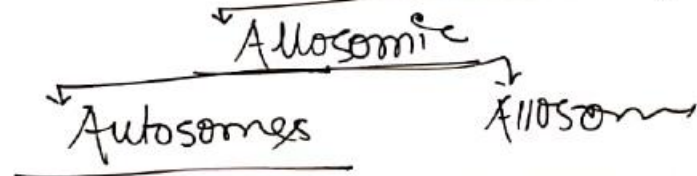


# SEX Determination

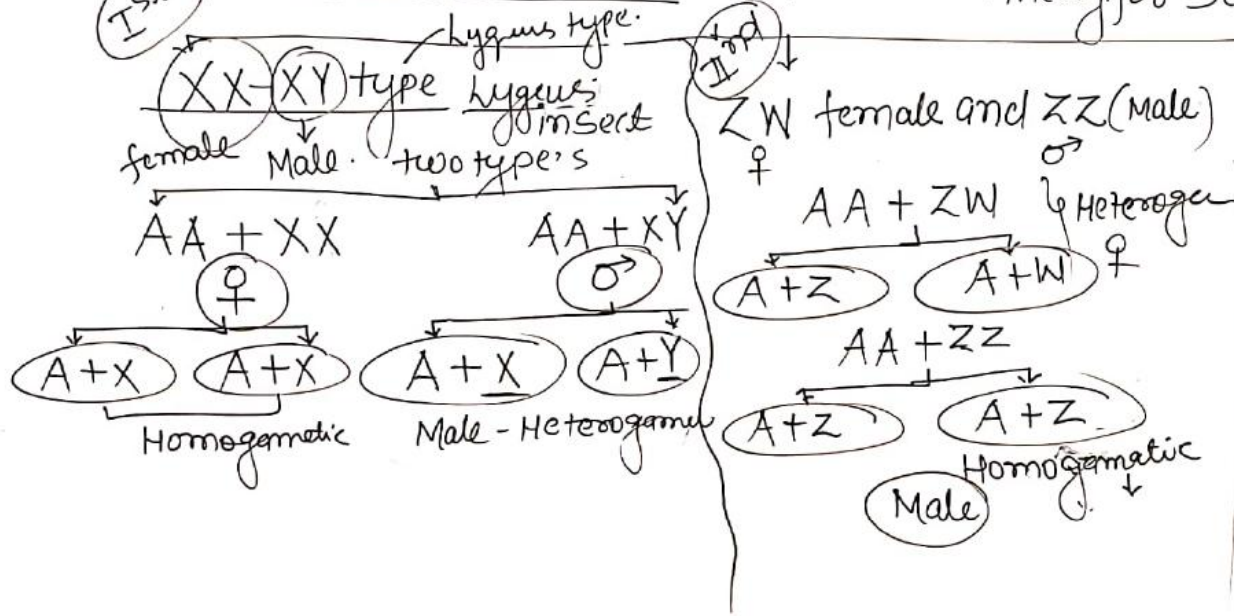
on the basis of fertilization

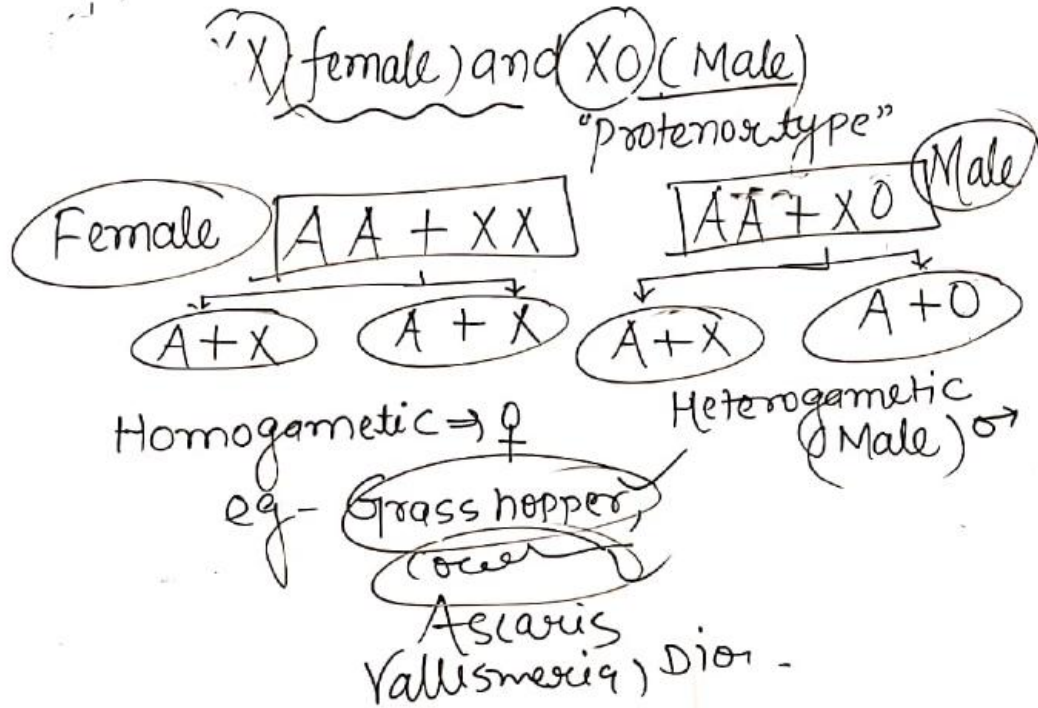


## Mechanism of Sex determination



Wilson and Stevens :- Chromosomal theory for Sex det.





Genic balance theory

C.B. Bridges  $\Rightarrow$  Drosophila

<sup>\*\*</sup>  $\boxed{SIR = \frac{X}{A} = 1}$  (female)  $\Rightarrow AA + XX \rightarrow (A+X), (A+X)$

$\frac{X}{A} = 0.5$  (Male)  $\rightarrow$   $AA + XY$  (fertile male)  
 $\rightarrow$   $AA + XO$  (sterile male)

$\frac{X}{A} = 1.5$  (superfemale)  $AA + (XXX)$

$\frac{X}{A} = \text{less than } 0.5$  (Supermale)  $(3A + XY)$   
 $AAA + XY$

$\frac{X}{A} = \text{In b/w } 0.5 \text{ to } 1 \Rightarrow$  intersex (sterile)  
 $(3A + XX)$