

\* Pedigree Analysis: → All the Conclusions


regarding gene action (dominant/recessive) we have discussed so far has been obtained from the result of Controlled Cross. Rather we need to analysis an Existing population. This is always the case when studying population and human genetics. Scientists have developed another approach, called pedigree Analysis.

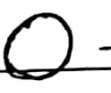
\* → To study the inheritance of human genetics


\* → pedigree analysis also useful when studying any population.


\* → pedigree analysis is helpful in studying species with a long generation time.

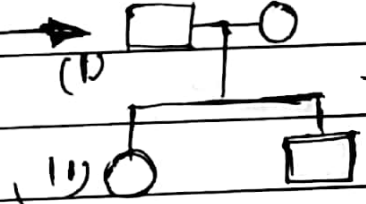
→ Symbols are used to represent different aspects of a pedigree.

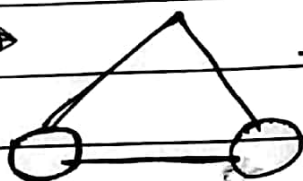
→  → male

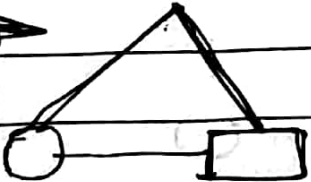
→  → female.

→  → Affected individuals.

→  → mating.

→  → offspring in birth order; I and II are generations; offspring I-1 and II-1 and II-2

→  → Identical Twins

→  → non-identical Twins

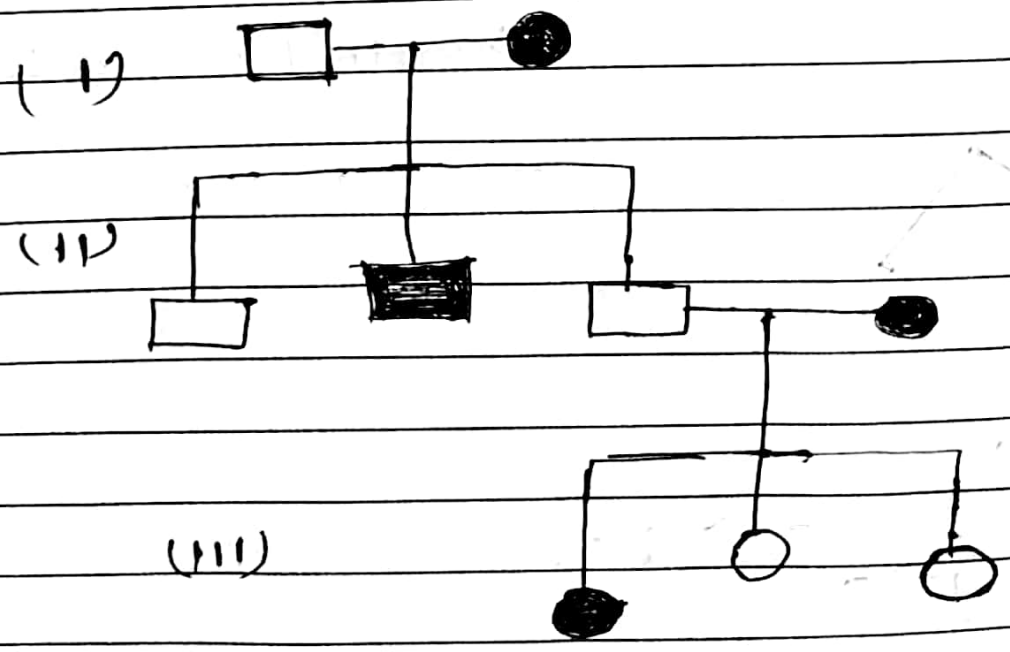
for those traits exhibiting dominant gene action: →

→ Affected individuals have at least one affected parent.

→ The phenotype generally appears every generation.

→ Two unaffected parents only have unaffected offspring.

⇒ DOMINANT PEDIGREE



→ And for those traits exhibiting recessive gene action.

→ Unaffected parents Can have affected offspring.

→ Affected ~~parent~~ progeny are both male and female.

— RECESSIVE PEDIGREE —

