

# GENETICS

Chapter = 5 → principles of Inheritance  
And VARIATION

- \* father of Genetics → Gregor Johan Mendel.
  - \* Term Genetics given by → Bateson
  - \* father of Modern Genetics → Bateson
  - \* father of Experimental Genetics  
→ T. H Morgan
  - \* father of *Drosophila* genetics.  
→ T. H Morgan
- # Genetics → study of mechanism of heredity and cause of variation in living beings.

# INHERITENCE  
OR  
HEREDITY

→ Transfer of character from parent generation to their offspring generation.

Transfer of characters from one generation to another generation.

OR  
Transfer of character from one generation to next, either by gametes—sperm & ova in sexual reproduction or bodies in asexual reproduction.

VARIATION is the cause of differences b/w individuals

Permanent

Temporary

is genetically determined  
Ex -> [Body height] ——— { Tall  
Medium  
Short

Body colour ——— { Dark  
Medium  
Fair

Eye colour ——— { Black  
Blue  
Brown

Character

is feature of an individual.

Heritable

~~Character~~ Character (Trait)

Non heritable  
Character

- > Is expression of gene.
- or
- > Is controlled by gene.
- or
- > Is determined by gene.

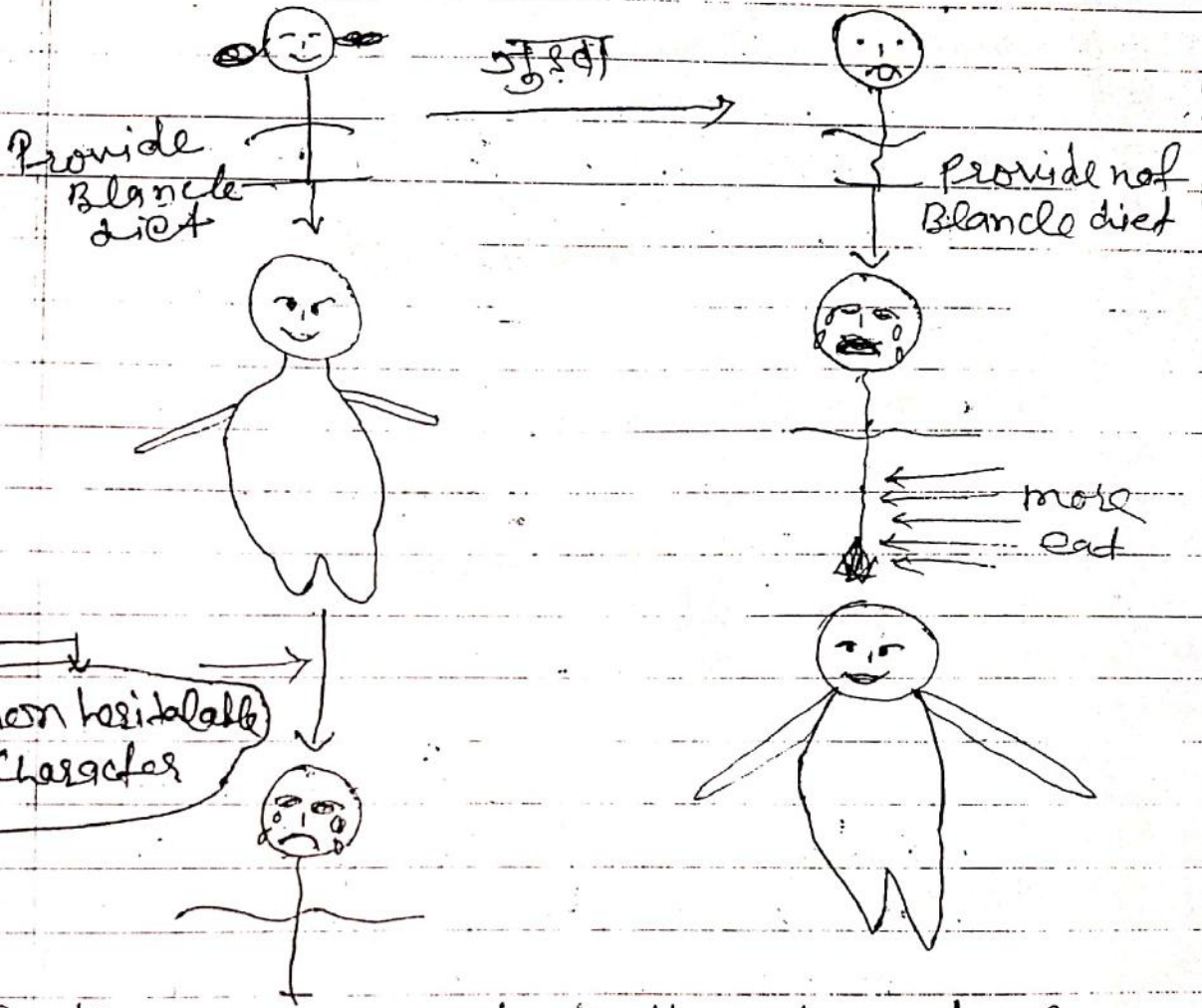
(ii) Non heritable character

Not determined or controlled by gene.

Temporary

→ due to environmental factors

Tall  
Indians  
eat



Q How gene controls the character?

Ans

