CLASS XI BIOLOGY

PLANT GROWTH AND DEVELOPMENT DEVELOPMENT

DEVELOPMENT:

Development is a term that includes all changes that an organism goes through during its life
cycle from germination of the seed to senescence. Diagrammatic representation of the
sequence of processes which constitute the development of a cell of a higher plant is given in
Diagram. It is also applicable to tissues / organs. Increase in quantity & quality is called
development.

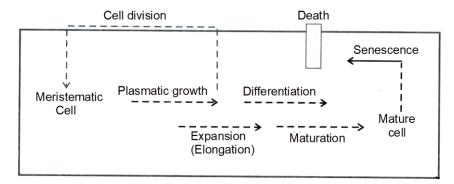


Fig: Sequence of the developmental process in a plant cell

 Plasticity:- Plants follow different pathways in response to environment or phases of life to form different kinds of structures. This ability is called Plasticity(NEET-2021), The phenomenon of heterophylly is also an example of plasticity.

TYPES OF HETEROPHYLLY

Developemental heterophylly	Environmental heterophylly	
The leaves of the juvenile plant are different	On the other hand, difference in shapes of	
in shapes from those in mature plants.	leaves produced in air and those produced in	

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e.g., Cotton, Cor i	ander and Larkspur.	water in some plants also represent the		
		heterophyllous	development	due to
		environment e.g.	, Buttercup(Ranu	nculus)
	(F. To gains and in Britaines.			