Chapter – 03
Modern Systems of Classification

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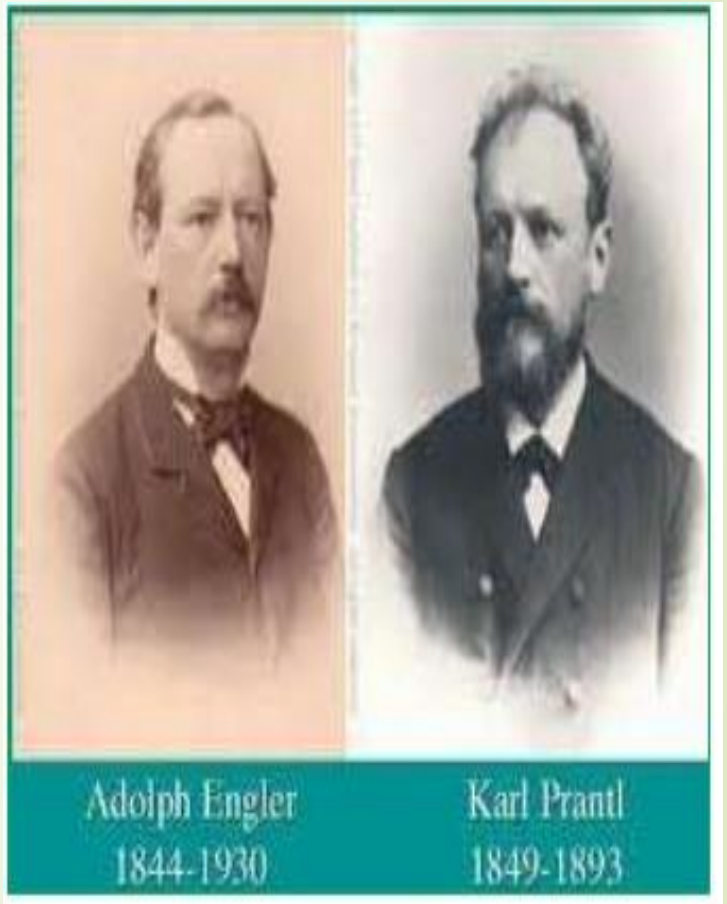
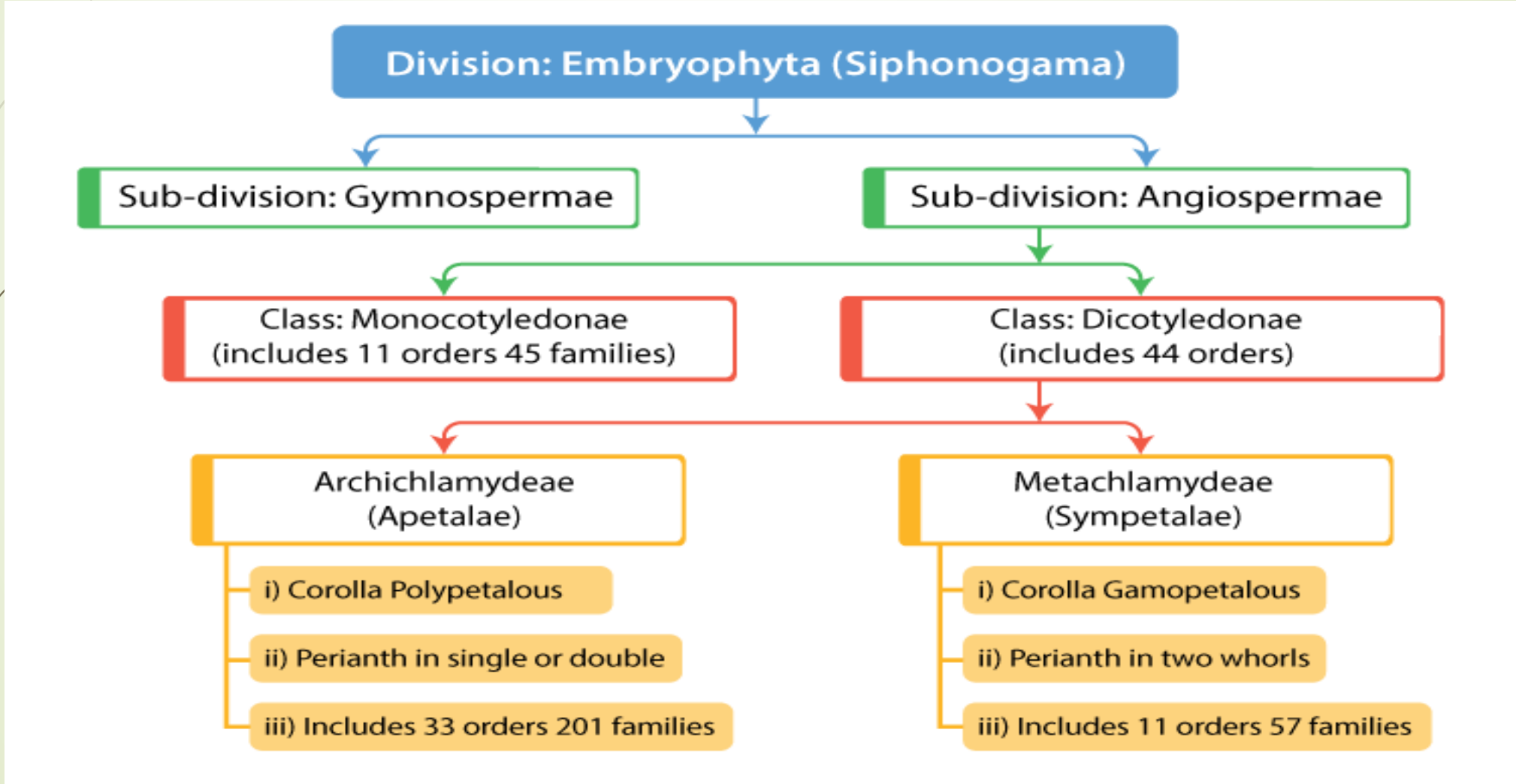
Engler and Prantl System of Classification

Engler and Prantl System of Classification

- Engler and Prantl system of classification was proposed by two German botanist Adolf Engler and Karl Prantl.
- It was published in a 23 volume monumental work “De Naturalischen Planzenfamilien”.
- They classified the entire plant kingdom starting from Algae up to Angiosperms.
- It is a phylogenetic system based on evolutionary trend.
- They studied about 303 families of flowering plants.



The outline of Engler and Prantl System of classification



Class : Monocotyledonae (Includes 11 orders)

Order I	Pandanales
Order 2	Helobiae
Order 3	Triuridinales
Order 4	Glumiflorae
Order 5	Principes
Order 6	Synanthae
Order 7	Spathiflorae
Order 8	Farinosae
Order 9	Liliflorae
Order 10	Scitamineae
Order 11	Microspermae

Class : Dicotyledonae

Sub-Class : Archichlamydeae (Includes

Order I	Verticellatae	Order I6	Polygonales
Order 2	Piperales	Order 17	Centrospermae
Order 3	Salicales	Order 18	Ranales
Order 4	Garryales	Order 19	Rhoedales
Order 5	Myricales	Order 20	Sarraceniales
Order 6	Balanopsidales	Order 21	Rosales
Order 7	Litneriales	Order 22	Pandales
Order 8	Juglandales	Order 23	Geraniales
Order 9	Batidales	Order 24	Sapindales
Order 10	Julianales	Order 25	Rhamnales
Order 11	Fagales	Order 26	Malvales
Order 12	Urticales	Order 27	Parietales
Order 13	Proteales	Order 28	Opuntiales
Order 14	Santalales	Order 29	Myrtiflorae
Order 15	Aristolochiales	Order 30	Umbelliflorae

Class : Dicotyledonae
Sub-Class : Metachlamydeae (Includes 10)

Order I	Ericales
Order 2	Primulales
Order 3	Plumbaginales
Order 4	Ebenales
Order 5	Contortae
Order 6	Tubiflorae
Order 7	Plantaginales
Order 8	Rubiales
Order 9	Cucurbitales
Order 10	Campanulatae

Salient Features of Engler and Prantl's System of Classification

- It is a phylogenetic system.
- Monocots are regarded more primitive than dicots.
- Orchids are more evolved than grasses.
- Amentiferae group is regarded as primitive.
- Polypetalae and Apetalae are placed in one group, Archichlamydeae.

Merits of Engler and Prantl's System of Classification

- It is an excellent treatment of the seed plants.
- Polypetalae and Apetalae are amalgamated.
- Gymnosperms are placed as a distinct group.
- Classification of Monocotyledons is better than Bentham and Hooker's.
- In Archichlamydeae and Metachlamydeae plants with epigynous flowers are considered towards the end.

Demerits of Engler and Prantl's System of Classification

- Monocots are placed earlier to dicots.
- Amentiferae which is a simple group because of reduction is considered primitive.
- Dichlamydeous flowers are regarded as primitive.
- Wind pollinated plants are regarded as primitive.
- Apetalous flowers are more primitive than petaloid flowers.