



ARTIFICIAL
TAXONOMIC KEY TO
THE FAMILIES

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CLASS I- DICOTYLEDONS, SUBCLASS – POLYPETALAE, GROUP I-
THALAMIFLORAE

1. Stamens numerous (15 or more) :
2. Carpels distinct or solitary :
3. Terrestrial plants (Trees or erect shrubs); carpels not in the enlarged torus :
4. Sepals and petals in fives, each in a single whorl; sepals
persistant.....Dilleniaceae
4. Sepals and petals in threes; petals in several whorls; sepals not persistent with
exstipulate leaves (Carpels combined in fruit).....Annonaceae
2. Carpels syncarpous; ovary unilocular or multilocular :
5. Placentation parietal :
6. Herbs : ovary sessile :
7. Sepals 2-3, caduceus : plants usually with yellow juice; fruit mostly a porous
dehiscent capsule..... Papaveraceae
7. Sepals 4-5, deciduous; plants foetid or not; fruits valvular with deshicent
capsule.....Cleomaceae
6. Trees or shrubs, sometimes straggling or climbing :
8. Ovary raised on gynophore.....Capparaceae
8. Ovary sessile :
9. Petals absent : plants with yellow juice.....Flacourtiaceae
5. Placentation usually axile :
10. Anthers one-celled :
11. Herbs or shrubs, rarely trees; leaves simple or entire or variously lobed; pollen
grains muricate.....Malvaceae
- 11.Trees; leaves digitately compound; pollen grains
smooth.....Bombacaceae
10. Anthers two-celled :
- 12.Stamens monadelphous, sometimes ovary raised on a
gynophore.....Sterculiaceae
- 12.Stamens distinct; ovary not raised on
gynophore.....Tiliaceae
1. Stamens limited upto 10 :

- 13. Plants usually twining; carpels free; seeds usually reniform or horse-shoe shaped.....Menispermaceae
- 13. Plants erect; herbs, shrubs or trees; carpels united; seeds not as above :
- 14. Leaves scale likeTamaricaceae
- 15. Flowers zygomorphic :
- 16. Petals and anthers not spurred; stamens monadelphous above the middle; placentation axile.....Polygalaceae
- 15. Flowers actinomorphic :
- 17. Sepals two; ovary half adnate..... Portulacaceae
- 17. Sepals 4-5; ovary superior :
- 18. Petals 4, cruciform; stamens tetradynamous; placentation parietal; fruit a siliqua.....Brassicaceae
- 18. Petals 4-5, not cruciform; stamens 5, non-tetradynamous; placentation axile or free central :
- 19. Stipules scarious or hyaline; placentation free central..... Caryophyllaceae
- 19. Stipules not as above; placentation axile.....Elatinaceae
- CLASS I- DICOTYLEDONS, SUBCLASS – POLYPETALAE, GROUP II- DISCIFLORAE
- 1. Inflorescence leaf-opposed :
- 2. Plants usually erect.....Leeaceae
- 2. Plants climbing, usually with leaf-opposed tendrils..... Vitaceae
- 1. Inflorescence not leaf-opposed :
- 3. Herbs :
- 4. Plants with tendrils.....Sapindaceae
- 4. Plants without tendrils :
- 1. Flowers actinomorphic :
- 2. Fruits indehiscent of 4-6 cocci; each occurs with two sharp divarticate spines; stamens 5+5.....Zygophyllaceae
- 6. Fruits a dehiscent capsule; stamens 5+5..... Oxalidaceae
- 5. Flowers zygomorphic..... Balsaminaceae
- 3. Trees or shrubs :
- 3. Leaves simple compound :
- 8. Leaflets two..... Balanitaceae
- 9. Plants resinous; fruit trigonous with cordate shaped pyrenes.....Burseraceae

9. Plants resinous, fruits not as above :
 10. Leaflets gland dotted..... Rutaceae
 10. Leaflets not gland dotted :
 11. Flowers regular; placentation axile or basal :
 12. Stamens monadelphous..... Meliaceae
 12. Stamens free :
 13. Plants with acrid resinous juice..... Anacardiaceae
 13. Plants not as above :
 14. Ovary lobed; disc not unilateral..... Simaroubaceae
 14. Ovary entire, disc unilateral..... Sapindaceae
 11. Flowers irregular; placentation parietal..... Moringaceae
 7. Leaves simple :
 15. Trees; if shrubs, seeds not arillate :
 16. Plants armed with straight or hooked spines..... Rhamnaceae
 15. Shrubs or woody twiners or climbers :
 17. Fruits a capsule; seeds arillate..... Celastraceae

CLASS I- DICOTYLEDONS, SUBCLASS – POLYPETALAE, GROUP III- CALYCIFLORAE

 1. Carpels monocarpellary; fruits a legume :
 2. Flowers zygomorphic or sub-zygomorphic :
 3. Corolla papilionaceous..... Fabaceae
 4. Corolla caesalpinaceous..... Caesalpinaceae
 2. Flowers actinomorphic..... Mimosaceae
 1. Carpels more than one; fruit not a legume :
 4. Carpels united; fruit not an achene :
 5. Plants usually tendrillar..... Cucurbitaceae
 5. Plants usually erect herbs, shrubs, undershrubs or trees; rarely twiners but without tendrils..... Molluginaceae
 6. Petals absent :
 7. Herbs :
 8. Stamens hypogynous; ovary 3-5 celled..... Molluginaceae
 8. Stamens perigynous; ovary 1-2-celled..... Aizoaceae
 7. Trees..... Combretaceae
 6. Petals present :

9. Ovary superior :
 10. Soft wooded trees..... Caricaceae
 10. Herbs and shrubs..... Lythraceae
 9. Ovary inferior :
 11. Flowers unisexual; sepals and petals 2; fruit winged..... Begoniaceae
 11. Flowers bisexual; sepals, petals and fruits not as above except Combretaceae :
 12. Trees :
 13. Leaves opposite, with intramarginal nerves..... Myrtaceae
 13. Leaves alternate; leaves without intramarginal nerves..... Alangiaceae
 12. Herbs :
 14. Inflorescence usually umbellate, fruit schizocarpic..... Apiaceae
 14. Inflorescence not umbellate; fruit a capsule :
 15. Capsule 4-5 celled, linear, leaves mostly alternate, if opposite, flowers axillary, solitary..... Onagraceae
 12. Woody climbers; ovary one-celled; fruit samara..... Combretaceae
- CLASS I- DICOTYLEDONS, SUBCLASS – GAMOPETALAE
1. Ovary inferior :
 2. Leaves opposite, usually stipulate..... Rubiaceae
 2. Leaves alternate, exstipulate :
 3. Inflorescence on involucre head..... Asteraceae
 3. Inflorescence not as above :
 4. Placentation axile :
 5. Corolla zygomorphic; anthers united into a tube..... Lobeliaceae
 5. Corolla nearly regular, anthers free..... Campanulaceae
 4. Placentation parietal..... Gesneriaceae
 1. Ovary superior :
 6. Parasitic plants :
 7. Placentation axile..... Scrophulariaceae
 7. Placentation parietal..... Orobanchaceae
 6. Aquatic plants with leaf bladders..... Lentibulariaceae
 6. Terrestrial plants, but not parasite :
 8. Corolla regular :
 9. Leaves opposite :
 10. Plants usually with milky latex or greenish yellow watery sap :

- 11. Pollen grains agglutinated into wax like masses or pollinia; styles two :
- 12. Filaments united.....Asclepiadaceae
- 12. Filaments free.....Periplocaceae
- 11. Pollen masses not as above; anthers sagitate, stigma dumbel shaped; style one..... Apocynaceae
- 10. Plants without milky latex or greenish-yellow sap; if latex present, anthers, stigma not as above and pollinia absent :
- 13. Inflorescence usually second or one sided cyme :
- 14. Leaves alternate :
- 15. Herbs erect, diffuse or prostrate; style one; fruits of nutlets or capsule :
- 16. Glandular pubescent herbs; fruit a capsule..... Hydrophyllaceae
- 16. Herbs, not as above; fruit of nutlets..... Boraginaceae
- 15. Trees or shrubs; style once forked or style 2 distinct; fruit a drupe... ..Ehretiaceae
- 13. Inflorescene not as above :
- 17. Leaves opposite :
- 18. Stamens two..... Oleaceae
- 18. Stamens 4-5 :
- 19. Trees or shrubs; fruit or berry..... Salvadoraceae
- 19. Herbs, fruit a capsule :
- 20. Placentation parietal.....Gentianaceae
- 17. Leaves alternate :
- 21. Flowers usually unisexual; stamens inserted on the receptacle..... Ebenaceae
- 21. Flowers bisexual; stamens inserted on the corolla :
- 22. Trees; plants with milky juice, corolla 4-8 lobed..... Sapotaceae
- 22. Herbs, undershrubs or twining; corolla usually 5 lobed :
- 23. Carpels 2; ovary 2 rarely 4-celled; ovules few to many on axile placentation :
- 24. Erect herbs or undershrubs; ovaries 2 celled or rarely 4-celled, ovules many in each cell..... Solanaceae
- 24. Mostly climbing, sometimes diffuse or prostrate herbs; ovaries 2-celled; ovules few in each cell..... Convolvulaceae
- 23. Carpels 5; styles 5; free, ovary one celled; ovule one on basal placentation..... Plumbaginaceae
- 8. Corolla irregular; sometimes actinomorphic in some; ovary 2-4 celled :
- 24. Leaves compound..... Bignoniaceae

- 24. Leaves simple :
- 25. Flowers with conspicuous bracts and bracteoles, bracts seldom absent..... Acanthaceae
- 25. Flowers with or without bracts :
- 26. Inflorescence a verticillaster; style gynobasic..... Lamiaceae
- 26. Inflorescence not as above; style terminal :
- 27. Placentation parietal; fruit hard, woody, black with two prominent curved hooks..... Martyniaceae
- 27. Placentation axile; fruit an urmed capsule or drupe :
- 28. Ovules many in each cell; fruit a capsule :
- 29. Flowers with distinct glands at the base of pedicel..... Pedaliaceae
- 29. Flowers without extra-floral glands..... Scrophulariaceae
- 28. Ovules 1-2 in each cell..... Verbenaceae
- CLASS I- DICOTYLEDONS, SUBCLASS – MONOCHLAMYDAE
- 1. Ovary superior :
- 2. Leaves with ochreate stipules..... Polygonaceae
- 2. Leaves estipulate or with a thin stipular line :
- 3. Ovary tricarpevery; style 3-6 distinct..... Euphorbiaceae
- 3. Ovary 1 to 2 carpellery :
- 4. Perianth petaloid, contracted at the base, enveloping the ovary... ..Nyctaginaceae
- 4. Perianth not petaloid, if petaloid not as above :
- 5. Plants with milky latex or watery juice :
- 6. Herbs..... ..Urticaceae
- 6. Trees or shrubs :
- 7. Plants with milky juice; inflorescence a hypanthodium..... ..Moraceae
- 7. Plants with watery juice; inflorescence a panicle or in axillary fascicles.....Ulmaceae
- 5. Plants without milky latex or watery juice :
- 8. Bracts and bracteoles scarious..... Amaranthaceae
- 8. Bracts and bracteoles absent; if present herbaceous.....Chenopodiaceae
- 1. Ovary inferior :
- 9. Root parasite..... ..Santalaceae
- 9. Stem parasite..... ..Loranthaceae

CLASS- MONOCOTYLEDONS

1. Perianth present :
2. Ovary inferior :
 3. Inflorescence usually umbellate..... ..Amaryllidaceae
 3. Inflorescence racemosa or paniculate, sometimes flowers solitary :
 4. Flowers actinomorphic :
 5. Plants climbing..... ..Dioscoreaceae
 5. Plants not climbing :
 6. Plants aquatic..... .. Hydrocharitaceae
 7. Arborescent; leaves all radical, fibrous; inflorescence paniculate on a woody scape..... ..Agavaceae
 7. Herbaceous; inflorescence not as above :
 8. Leaves plicate; ovary three celled with axile placentation..... Hypoxidaceae
 8. Leaves not plicate; ovary one celled, with three parietal placentas..... Taccaceae
 4. Flowers zygomorphic :
 9. Corolla spurred; ovary spirally twisted, gynostagium present; anthers with pollinia..... .. Orchidaceae
 9. Corolla and ovary not as above, gynostagium and pollinia absent..... .. Zingiberaceae
 2. Ovary superior :
 10. Terrestrial plants :
 11. Carpel one or more, apocarpous :
 12. Trees with annulated trunk or trunks covered with persistent leafy bases, leaves always in terminal crown..... ..Arecaceae
 13. Herbs or herbaceous climber :
 14. Flowers not in head :
 15. Flowers bracteate..... .. Commelinaceae
 15. Flowers abraceate..... .. Liliaceae
 1. Perianth none, at least in male flowers (if the flowers unisexual) or rudimentary or represented by bristles or scales :
 3. Inflorescence various of terminal spikelets :
 16. Culms trigonous solid; leaves tristichous, eligulate; spikelets bisexual; fruit nut..... .. Cyperaceae

16. Culms mostly below, cylindrical or flattened, leaves ligulate; spikelets uni or bisexual; fruit a caryopsis..... Poaceae

3. Inflorescence not made up of spikelets :

17. Flowers enclosed in the spathe; stamens 1-3; connective produced beyond the anthers; ovary stipitate..... Typhaceae

17. Flowers enclosed in a spathe; stamens 1; connective not produced; ovary sessile..... Araceae