

Description and identification of Family Meliaceae, M.Sv.II Lab course I

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Melia azedarach



Azadirachta indica



SCHEME TO DESCRIBE A FLOWERING PLANT

The following two schemes to be used while describing and identifying a flowering plant.

SCHEME -1

The list of characters used to describe the plants are (Habitat, Habit. Root , Stem, Leaf, Inflorescence, flower, calyx , corolla , androecium, gynoecium, fruit, seed, floral formula , Classification and Identification).

All the above characters should be described in scientific terminology.

SCHEME -2

2. Drawing the diagrams of plant

(a flowering twig , a flower , L.S. of flower, androecium, gynoecium, T. S. of ovary and floral diagram).

FOLLOWING ARE THE CHARACTERS OF GIVEN PLANT -1

Stem –Woody , much branched, erect, solid.

Leaves - Pinnately compound, imperipinnate, exstipulate, leaflet asymmetrical, acute apex, serrate margin.

Inflorescence - Cymose panicles

Flower - Pedicellate, ebracteate, complete, hermaphrodite, hypogynous, pentamerous, , with a nectariferous disc .

Calyx - Sepals 5, small , gamosepalous , valvate aestivation.

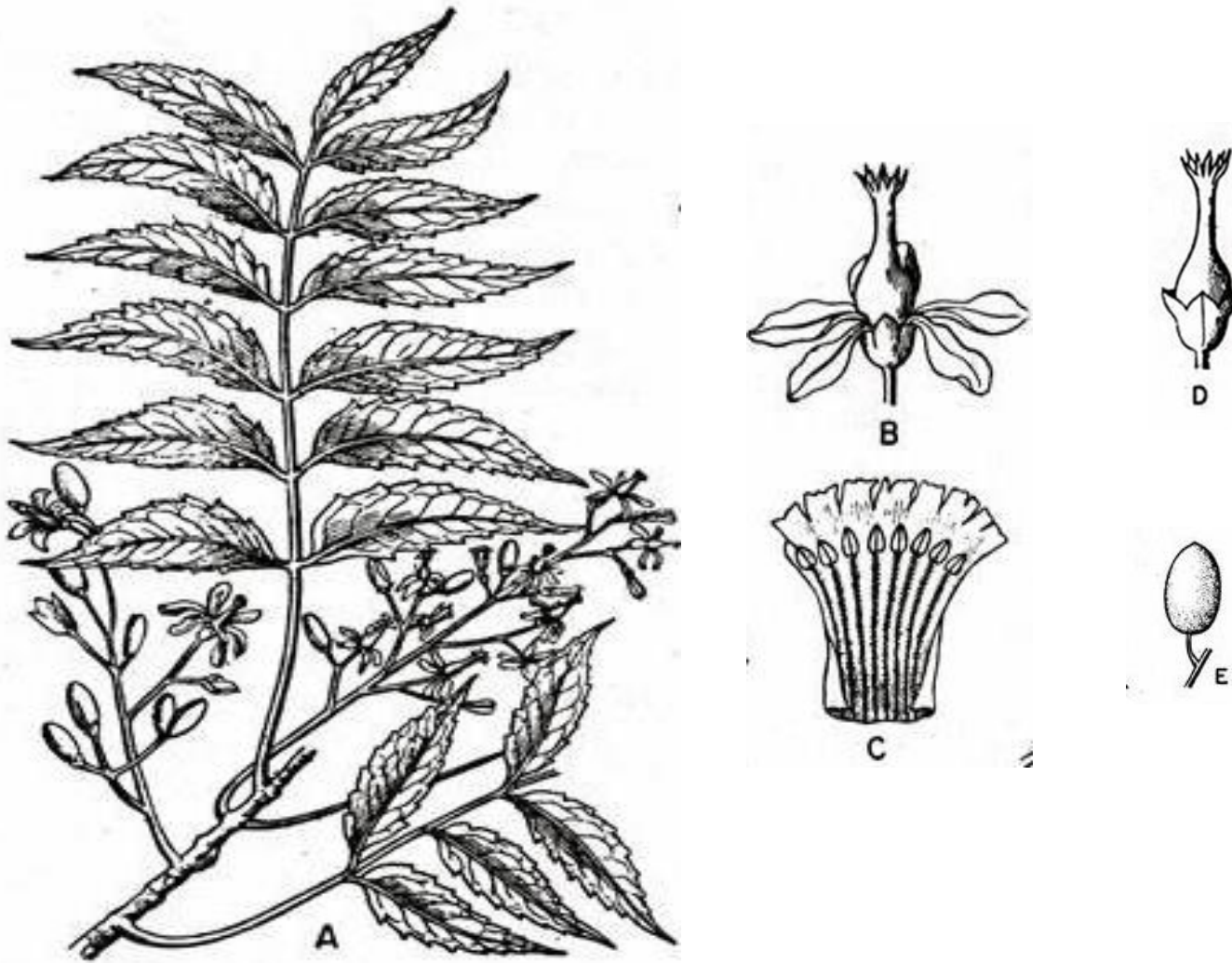
Corolla - Petals 5 polypetalous , imbricate aestivation, white in colour.

Androecium - Stamens 10, monadelphous , forming a tube, anthers dithecous , introrse.

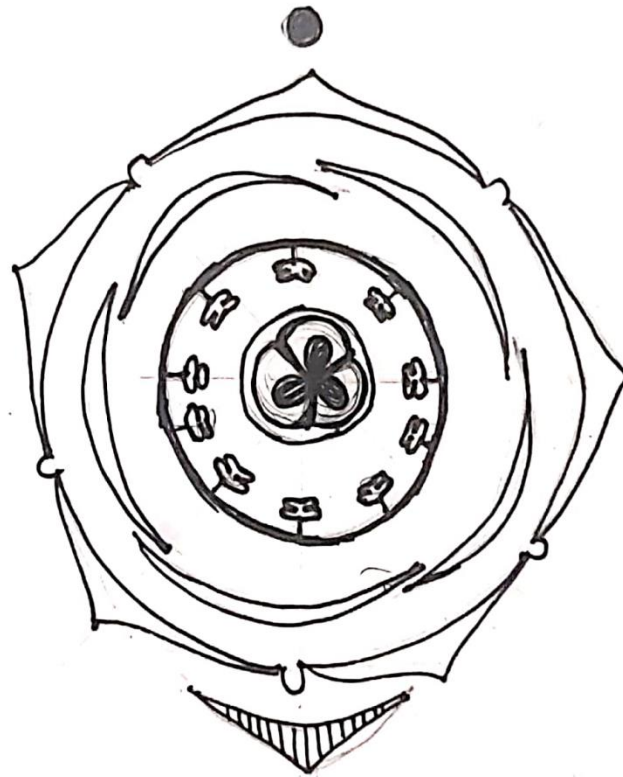
Gynoecium - carpels 3, syncarpous, 3 locular , 1 ovule in each locule , axile placentation, stigma capitate.

Fruit - Drupe.

Floral formula - $B_{\times} \oplus \overset{\uparrow}{\underset{\downarrow}{\text{♀}}} K_{(5)} C_{5A} (10) \underline{G_{(3)}}$



.Azadiracta indica juss A .leafy twig with panicles B.flower C. Staminal tube with anthers D. flowers with petals removed to show ovary E.fruit.



Floral diagram: Azadirachta indica

Floral formula- $B\gamma \oplus \overset{\uparrow}{\underset{\downarrow}{\phi}} K(5) C5 A(10) \underline{G(3)}$

Classification and identification

- 1. Venation reticulate**
- 2. Flower pentamerous**

Class - *Dicotyledonae*

- 1. Petals free**

Sub- class - *Polypetalae*

- 1. A disc is usually present below the ovary.**
- 2. Ovary superior and flowers hypogynous.**

Series - *Disciflorae*

- 1. Disc usually adnate to the stamen or reduced to gland.**

Order - *Geraniales*

- 1. Leaves pinnately compound , exstipulate, leaflets asymmetrical**
- 2. Flowers in cymose panicles**
- 3. Stamens form a staminal tube**

Family – *Meliaceae*

- 1. Compound leaf, alternate, margin serrate**
- 2. Woody branched tree**

Genus - *Azadirachta*

- 1. Flowers white and fruit with single seed.**
- 2. Fruits on ripening, aromatic with garlic like odour.**
- 3. It is native of India and are of great medicinal value.**

Species - *Azadirachta indica*

(Common name –Margosa , local name - Neem)

FOLLOWING ARE THE CHARACTERS OF GIVEN PLANT:-2.

Stem -Woody much branched, erect, solid.

Leaves - Bipinnately compound , imperipinnate, exstipulate, leaflet asymmetrical, acute apex, serrate margin.

Inflorescence – Axillary panicle cyme

Flower - Pedicellate, bracteate, bractiolate, complete, hermaphrodite, hypogynous, pentamerous, with a nectiferous disc.

Calyx - Sepals 5, small , polysepalous , quincuncial aestivation.

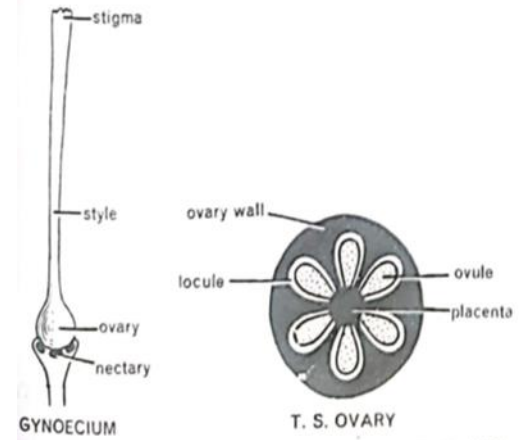
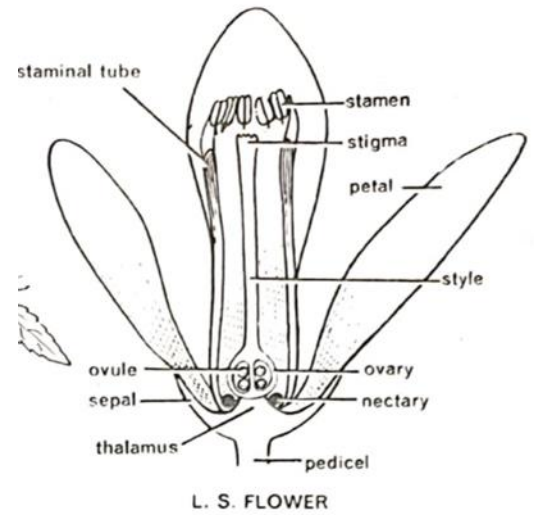
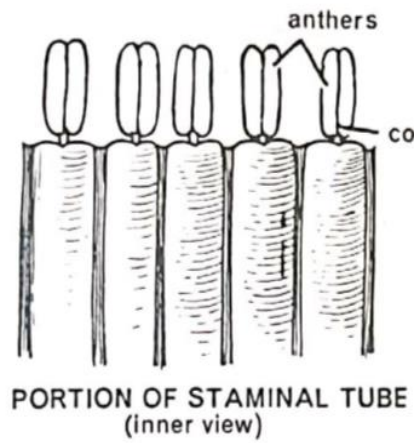
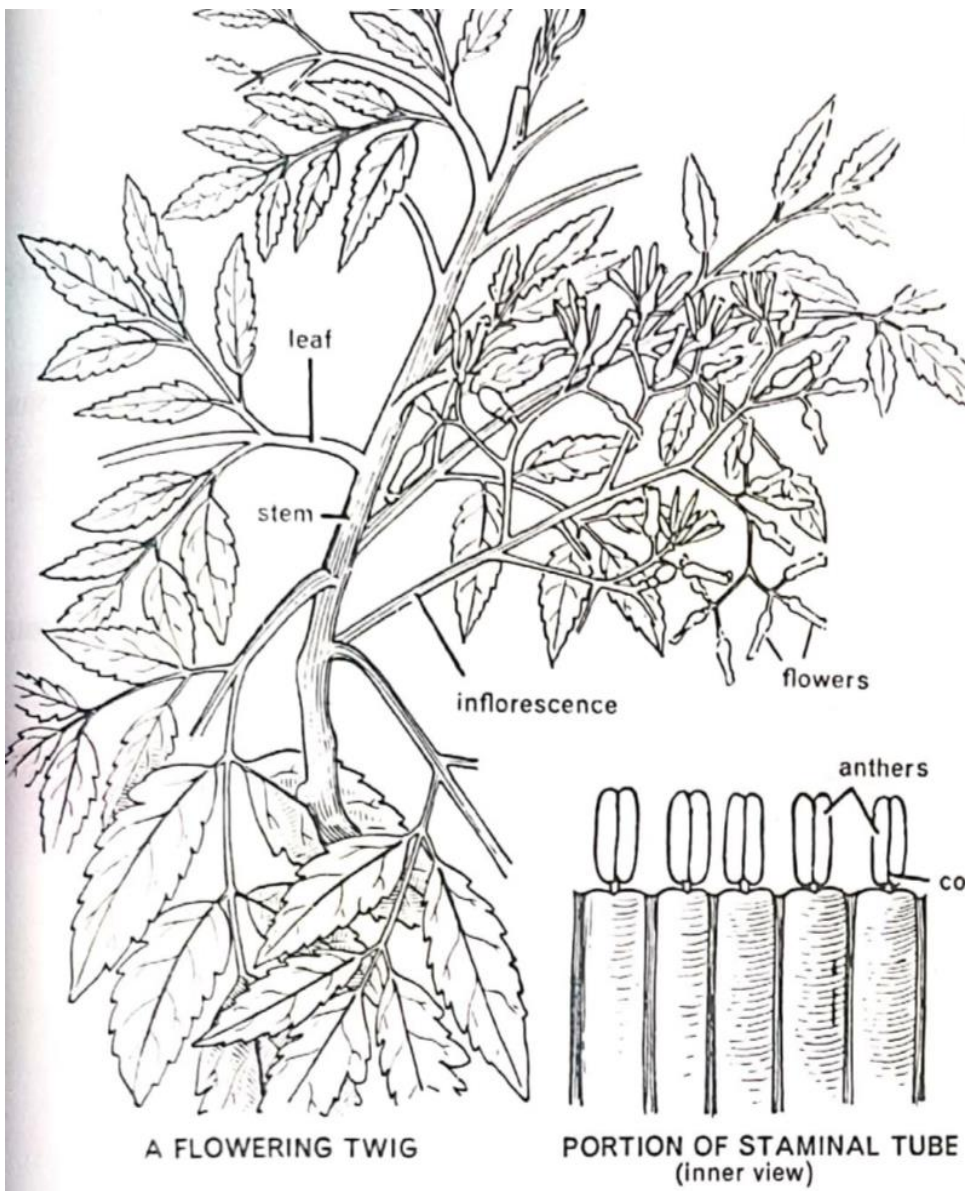
Corolla - Petals 5 polypetalous , quincuncial aestivation, purple (lilac) in colour.

Androecium - Stamens 10, monadelphous forming a tube enclosing the ovary , anthers dithecal , basifixed , introrse.

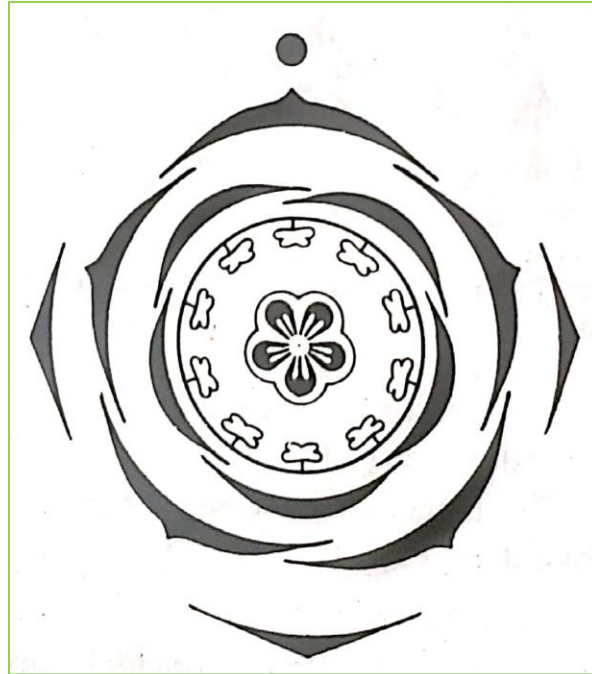
Gynoecium – Pentacarpellary , syncarpous, 5 locular , 1 ovule in each locule, axile placentation, style slender

Fruit - drupe.

Floral formula - $Br\ brl\ \oplus\ \overset{\uparrow}{\underset{+}{\text{O}}}\ K_5\ C_5\ A_{(10)}\ \underline{G}_{(5)}$

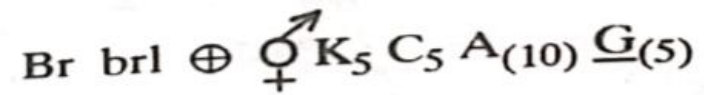


Melia azedarach



Floral diagram of *Melia azedarach*

Floral formula -



Classification and identification

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Order - *Geraniales*

1. Leaves pinnately compound and exstipulate, leaflets asymmetrical.
2. Flowers in cymose panicles.
3. Stamens form a staminal tube.

Family – *Meliaceae*

1. Bipinnately compound leaf, margin serrate.
2. Woody drooping branched tree.

Genus - *Melia*

1. Flowers purple and fruit with many seeds.
2. Fruits are poisonous to human.
3. Fruits are hanging on the tree in clusters.

Species - *Melia azedarach*

(Common name - Pride of India , local name – Bakain)

Thank you