

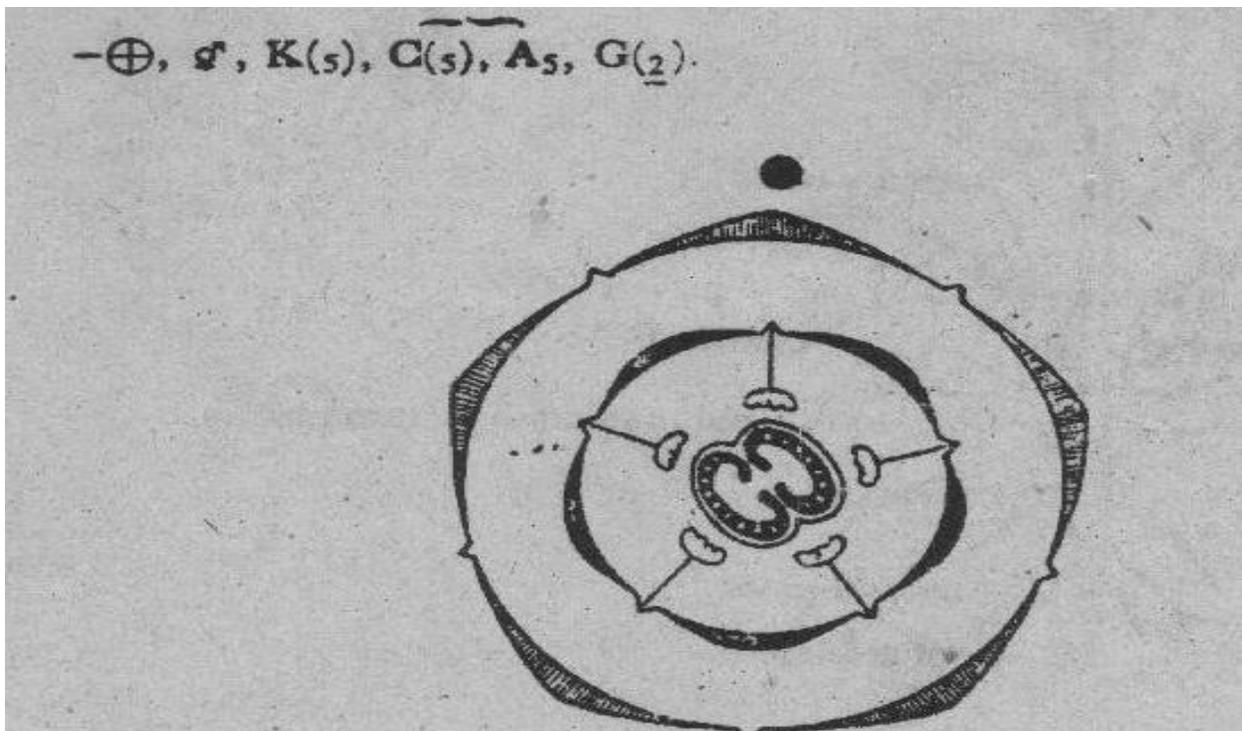
## FAMILY: SOLONACEAE

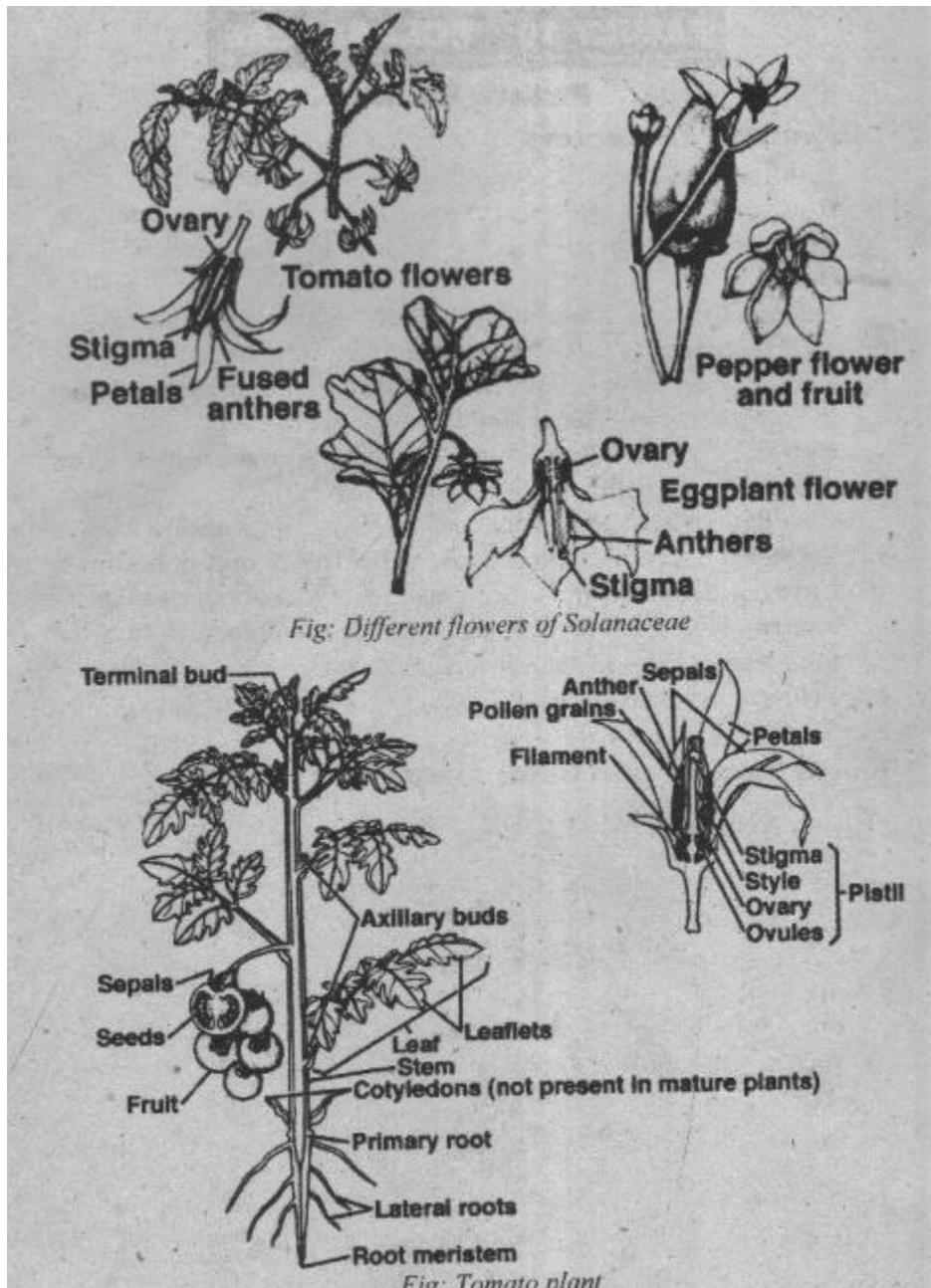
### Potato Family

#### Diagnostic characters

1. **Habit:** Annual, biennial or perennial herbs, or small tree.
2. **Roots:** Fibrous or tuberous tap root.
3. **Stem:** Herbaceous or <sup>Nsood.</sup>; sometimes underground stem (tuber).
4. **Leaves:** Petiolate; alternate or opposite; simple; exstipulate;
5. **Inflorescence:** Terminal or lateral cyme or solitary.
6. **Flower:** Pedicillate; ebracteate; actinomorphic or zygomorphic; Regular; complete; hermaphrodite; hypogynous;
7. **Calyx:** 5 sepals; fused (gamosepalous); green; often much enlarged in the fruit.
8. **Corolla:** 5 petals; gamopetalous; bell shaped or funnel shaped.
9. **Stamens:** 5 stamens; epipetalous; anther free or united; basifixed
10. **Carpel:** Bicarpellary; syncarpous; ovary superior; obliquely placed; bilocular, sometimes, become multilocular by the . formation of false septum. Placentation axile.
11. **Fruits:** Capsule or berry
12. **Seed:** Endospermic seed.

#### Floral formula and floral Diagram





## Economic Importance

1. **Food:** Many plants of this family are used as food.
  - **Solanum tuberosum** (potato-white or Irish potato): It is an important plant in this family. It is used as food. The people of Ireland completely depend on potato for food.
  - **Lysopersicum esculentum** (tomato): Once it was believed to be a poisonous plant. Now it is used as a vegetable.
  - **Solanum melangena** (egg plant or brinjak'): It is also used as food.
  - **Capsicum annum** and **Capsicum frutescens** are rich in vitamin C and Vitamin A. They are used as condiments .

- **Physalis** (4-jet-Ground-Cherry): it produces an edible fruit. This fruit is enclosed in a bladder like calyx called husk. So it is called **husk tomato**.
- 2. **Tobacco: Nicotiana tobacum** (tobacco) has great commercial value. Its leaves are dried and made into tobacco. This tobacco is used for making cigarettes.
- 3. **Medicinal plants:** Many members of this family produce powerful alkaloids . e.g. **Atropa belladonna, Datura** are rich in **atropine** and **daturines**. These are used in many medicines.
- 4. **Ornamental Plants:** Many plants are cultivated in the gardens for their beautiful flowers. Examples: **Petunia, Nicotiana, Cestrum and Solanum etc.**
- 5. **Weeds:** Some plants are weeds, e.g. **Solanum nigrum**

### **Distribution pattern**

“This family has about **90** genera and **2000** species. These plants are distributed in temperate and tropical areas. **14** genera and **52** species of this family are present in Pakistan.

### **Common species**

1. *Solanum tuberosum*: Potato
2. *Nicotiana glauca*: Tobacco
3. *Lycopersicon esculentum*: Tomato
4. *Capsicum frutescens*: Red pepper
5. **Solanum melongena** (egg plant or brinjal)