

UNIT IV : PLANT SYSTEMATICS

8. TAXONOMY OF ANGIOSPERMS**(1 × 2) + (1 × 4) = 6 Marks****ROOT POINTS**

- Plant systematics** is the study of the diversity and history of plants and the evolutionary relationships among them.
- The **flowering plants** are known as **Angiosperms**.
- Taxonomy of angiosperms** deals with their identification, nomenclature and classification.
- Types of Taxonomy:** (i) Alpha taxonomy (ii) Beta taxonomy (iii) Omega taxonomy.
- Alpha taxonomy:** It is purely based on the description of **Morphological characters**.
- Beta taxonomy:** It deals with Genetics, Anatomy, Physiology besides Morphology.
- Omega taxonomy:** It is an advanced taxonomy which deals with Embryology, Cytology, Palynology, Phytochemistry, Serology along with Morphology. **[IPE]**
- Formation of fruit **inside the soil** is called **geocarpy**. **Ex:** *Arachis hypogea* **[IPE]**
- Floral diagram** is the diagrammatic representation of floral parts and their arrangement. **[IPE]**
- Floral formula** represents various floral parts by means of symbols. **[IPE]**
- Non-essential floral parts of Fabaceae** are Calyx and Corolla. **[IPE]**
- Essential floral parts of Liliaceae** are Androecium and Gynoecium. **[IPE]**
- Essential organs of Solanaceae** are Androecium and Gynoecium. **[IPE]**
- Economic importance of Fabaceae plants :** They produce **[IPE]**
 - (i) Pulses (ii) Edible oils (iii) Vegetables (iv) Timber (v) Fiber
 - (vi) Blue dye (vii) Fodder (viii) Gree manure

FRUITY Qs OF IPE**(1 × 2) + (1 × 4) = 6 Marks**

- What is "Omega Taxonomy"?
- What is natural system of plant classification? Name the scientists who followed it?
- What is geocarpy? Name the plant which exhibits this phenomenon.
- Write the floral formula of solanum plant.
- Describe the non-essential floral parts of plants belonging Fabaceae.
- Describe the essential floral parts of plants belonging to Liliaceae.
- Write a brief account on the class of dicotyledonae of Bentham and Hooker's classification.
- Describe the essential organs of Solanaceae
- Give economic importance of plants belonging to Fabaceae.