

## **Quadrant II – Transcript and Related Materials**

**Programme: Bachelor of Science (Third Year)**

**Subject: Botany**

**Paper Code: BOC 105**

**Paper Title: Classical Taxonomy and Phylogeny**

**Unit: 1**

**Module Name: Inflorescence types**

**Module No: 16**

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### **Notes**

Inflorescence: Arrangement of flowers on floral axis on the plant or mode of flower bearing.

The flowers may either occur singly or may be organized into distinct inflorescence.

### **Raceme**

A simple, elongated, indeterminate inflorescence with pedicelled or stalked flowers e.g., *Desmodium heterocarpon*.

### **Panicle**

An indeterminate branching raceme; an inflorescence in which the branches of the primary axis are racemose and the flowers are pedicellate e.g., *Lagerstroemia indica*.

### **Spike:**

A usually unbranched, elongated, simple, indeterminate inflorescence whose flowers are sessile, the flowers either congested or remote e.g., *Crossandra infundibuliformis*.

### **Spadix**

A thick, or fleshy spike of certain plants, as in members of the Araceae, surrounded or subtended by a spathe e.g., *Anthurium andraeanum*.

### **Corymb**

Short and broad, more or less flat-topped indeterminate inflorescence, the outer flowers opening first e.g., *Iberis sempervirens*.

### **Catkin**

A scaly-bracteate, usually flexuous spike or spike like inflorescence e.g., *Juglans regia*.

### **Umbel**

An indeterminate, often flat topped inflorescence whose pedicel and peduncles (rays) arise from a common point, resembling the stays of an umbrella; umbels are characteristics of Umbelliferae/Apiaceae and are there usually compound, each primary ray terminating by secondary umbel e.g., *Daucus carota*

### **Capitulum:**

A dense inflorescence comprised of an aggregation of usually sessile flowers e.g., *Tridax procumbens*.

### **Cyme**

A broad, more or less flat-topped, determinate flower cluster, with central flower opening first.

### **Types of Cyme**

1. Monochasium/Monochasial Cyme
2. Dichasium/Dichasial cyme

**1. Monochasium/Monochasial Cyme:** A cyme reduced to single flower on each axis (the laterals of the dichasium having been lost by reduction).

- i. **Helicoid cyme:** A sympodial determinate inflorescence whose lateral branches develop from the same side e.g., *Heliotropium indicum*.
- ii. **Scorpioid cyme:** A determinate inflorescence with the seemingly lateral flowers borne alternately on opposite sides of a pseudoaxis and sometimes appearing racemose e.g., *Solanum laciniatum*.

**2. Dichasium/Dichasial cyme:** A determinate inflorescence represented by a false dichotomy with the first flower to open is situated between two lateral flowers e.g., *Allamanda cathartica*.

### **Specialized types of Inflorescence**

**Cyathium:** A type of inflorescence characteristic of Euphorbia; the unisexual flowers condensed and congested within bracteate envelope from which they emerge at anthesis e.g., *Euphorbia pulcherrima*.

**Verticillaster/verticillate inflorescence:** One with flowers in whorls about the axis, the whorls remote from one another or congested into head-like structure. Such whorls are false, since they are actually sessile cymes arranged opposite one another in the axils of opposite bracts or leaves e.g., *Ocimum tenuiflorum*.

**Hypanthodium:** Fleshy receptacle forms a hollow pear-shaped cavity with a narrow small opening. The flowers are borne on the inner wall of the cavity and are unisexual. Male flowers are borne on upper side towards mouth and female flowers are borne at the base of the cavity e.g., *Ficus carica*.