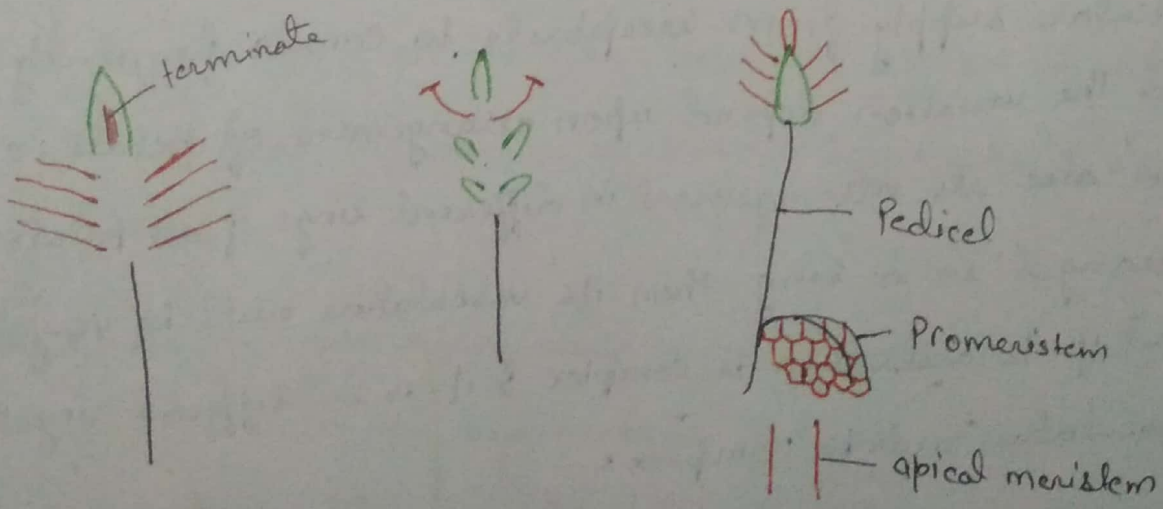
Floral Anatomy

Flower is the histological derivative of shoot in which lateral appendages from perianth calyx corolla stamen and the central part is very much similar to the shoot apex because it also bear apical meristem.

The apical meristem anticlinally divides below the epidermis to produce lateral appendages. All flower are either pedicellate or sessile. if it is pedicellate then it provides a medium for entry of shoot vascular bundle or vascular cylinder into the receptacle.

The receptacle looks like a mesh or network of vascular traces because from this very point vascular supply enters in all the appendages.

In receptacles the vascular supply first diverge itself then converge itself & then finally in carpel it terminates or fade off.



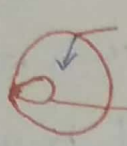
Scanned by CamScanner

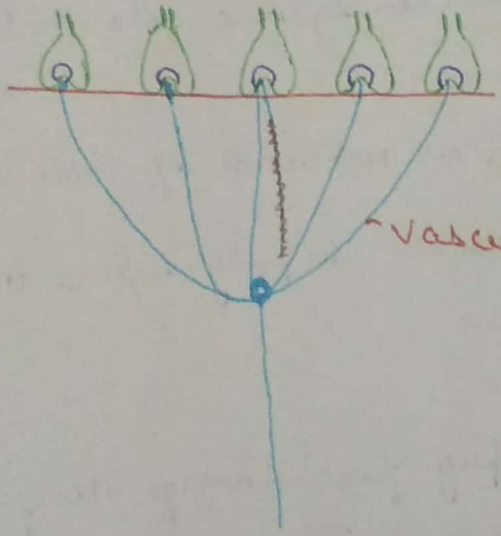
Vascular supply in different lateral appendages of receptacle

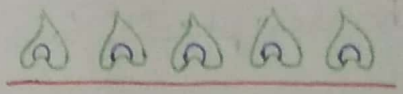
1) Perianth → similar to leaves

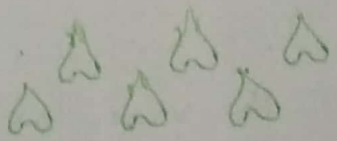
2) Calyx → similar to leaves

3) Corolla → Generally, 1 leaf trace is found but in members of some families like Ranunculaceae 3 traces followed by 3 gap.





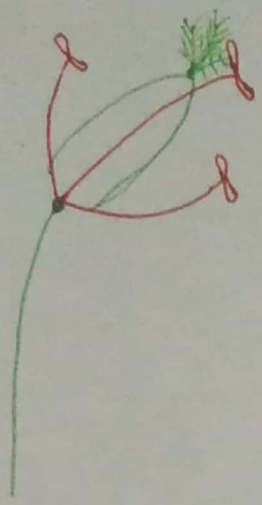




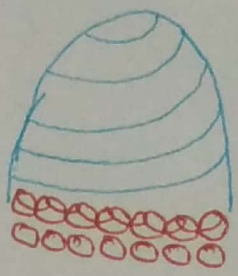
Vascular supply from receptacle to corolla frequently varies and the variation depend upon arrangement of petals i.e aestivation and also its arrangement in different rings if all petals are arranged in a ring then its vasculature will be very simple and if its aestivation is complex & it is in different ring then its vasculature will be complex.

In most of the cases all petal get only one trace and only one gap.

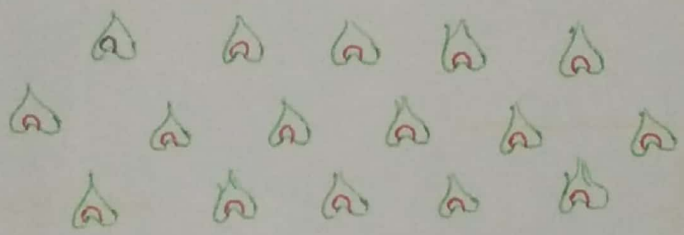
Scanned by CamScanner



Poaceae



Ranunculaceae



Arrangment of stamen in different plant varies generally in primitive members of family Ranunculaceae, Rosaceae infite number of stamens found and they are generally arranged either in spiral manner or in different rings so in such cases the vasculature becomes very complex on the other hand the member of advance family like Poaceae the number of stamen very reduced and generally three.

In such cases the vasculature will be very simple it means Vasculature in stamen and androecieum is highly variable and one stamen gets either one or three staminal faces.

Scanned by CamScanner