

Quadrant II – Transcript and Related Materials

Programme: Bachelor of Science (First Year)

Subject: Botany

Paper Code: BOC 102

Paper Title: Biodiversity II (Vascular plants)

Unit: 01

Module Name: Classification and Morphology of *Pteris*

Module No: 17

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Notes

Classification of *Pteris*:

Division : Filicophyta

Class : Leptosporangiopsida

Order : Filicales

Family : Polypodiaceae

Sub family : Pteridioideae

Genus : *Pteris*

Morphology of *Pteris*

The main sporophytic plant body is differentiated into:

1. Rhizome: May be creeping or erect, branched and perennial. It is covered with brown scales.

2. Roots: are small and branched. Roots arise from the lower surface of rhizome or all over the surface. Function of roots is anchorage and absorption.

3. Leaves: are borne on the upper surface of the rhizome in an acropetal pattern. They are pinnately compound. Petioles are covered with scales.

Pinnae are smaller near the base as well as towards the apex and larger near the middle which gives spindle- like appearance to the frond. Leaf apex is occupied by odd leaflet or pinna.

Pinnae are sessile, broad at the base and gradually taper towards the apex and are organized in pairs except for the terminal leaflet. The pinnae are very often coriaceous or rough to touch.

Young leaves are spirally coiled and show circinate vernation that is typical of true ferns. All leaves are fertile, bearing sori along the ventral margin of pinnae, except the apices of the segments. Venation is open furcate type.