SUMMARY

The constituents of a number of plants were studied under a scheme for investigation of indigenous medicinal plants. Interesting constituents were isolated from four of these and structural studies on these form the basis of the work presented in the thesis.

Gnetum ula (Gnetaceae)

The acetone extract of the plant was subjected to column chromatography over silica gel. Some of the products isolated from this chromatography have been discussed in another thesis*. During the course of the present work two new compounds have been isolated and assigned the structures (XI) and (XV). Besides this structure (IV) assigned earlier to the trihydroxy-monomethoxy stilbene has now been revised to (VI).

*Ph.D. thesis of Dr. Jamal Ahmad (1981), Department of Chemistry, Aligarh Muslim University, Aligarh, India.
Maytenus emarginata (Celastraceae)

Maytenus species came into prominence with the isolation of compounds having antileukemic and antitumor activity. Extraction of the leaves of Maytenus emarginata collected from South India afforded crude alkaloid in poor yields which was shown by TLC to be a mixture of several components. Further chromatographic separation yielded only one compound in a sufficient degree of purity for identification. Spectral data shows it to be celacinnine (XVII) with traces of celalallocinnine.
The roots of the plant afforded the β-amyrin lactone (XXII) which was isolated by Chinese workers from *Tripterygium wilfordii* in 1984 but a direct comparison could not be made.
**Excocharia agallocha** (Euphorbiaceae)

A piperidine alkaloid was isolated from it earlier but spectral data did not completely define its substitution pattern. Comparison with the compound now synthesised shows it to have the structure (XXV).

![Chemical Structure (XXV)](attachment:structure25.png)

**Cissus pallida** (Vitaceae)

This plant was collected from the same region from which *Maytenus emarginata* was obtained. The plant extract was found to contain a high molecular phenol which has been identified as the new stilbene oligomer (XXXIV).

![Chemical Structure (XXXIV)](attachment:structure34.png)