

7.4. GROSS ANATOMICAL STUDY OF CRUDE DRUGS

7.4.1. Introduction

The anatomical structures of the following crude drugs have been discussed below:

- 1) Senna,
- 2) Datura,
- 3) Cinnamon,
- 4) Cinchona,
- 5) Fennel,
- 6) Clove,
- 7) Ginger,
- 8) Nux-vomica, and
- 9) Ipecacuanha.

7.4.2. Senna

Senna represents the typical histological characters of isobilateral leaf in which the **epidermis** shows the presence of unicellular, conical, thick-walled **trichomes**. Trichomes are slightly curved at their bases and are present on both the surfaces. Rubiaceous or paracytic stomata are present on epidermal surfaces. **Palisade tissue** is present on both the sides, consisting of rectangular cells, enclosing cluster of **calcium oxalate crystals**. The **spongy mesophyll** and the conducting tissues are represented by the leaves as shown in the **figure 7.17**.

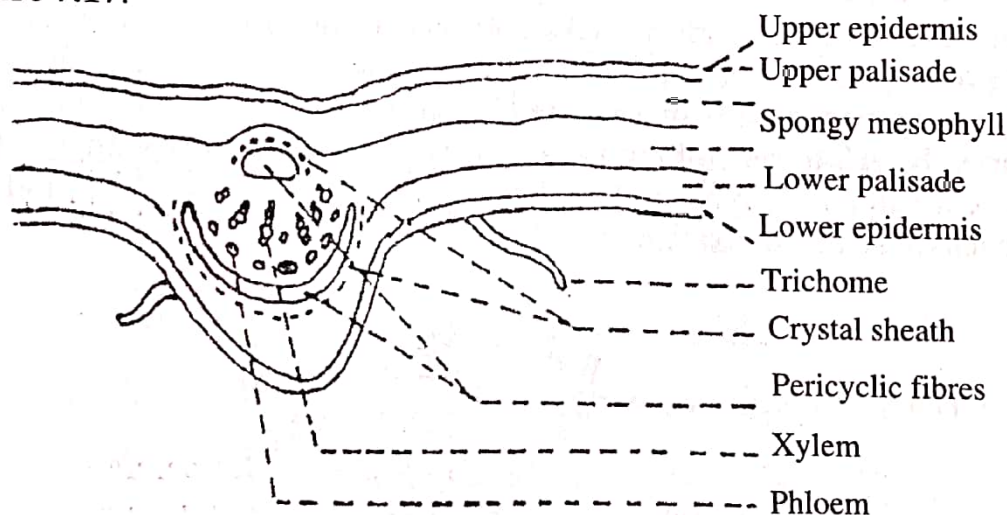


Figure 7.17: T.S. of Senna Leaflet

A patch of **sclerenchyma** towards the upper epidermis and above **xylem** (also known as pericyclic fibres) is present. The presence of **cluster sheath** and **collenchyma** are characteristics of the senna leaves.