

Microscopical Drug Analysis

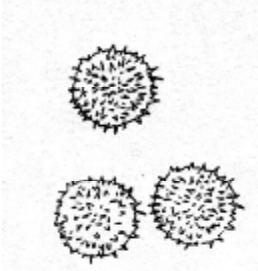

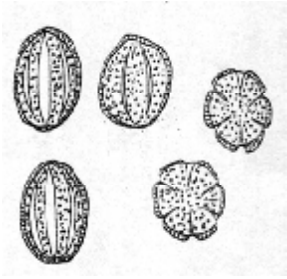
Part II

Lab No. 3

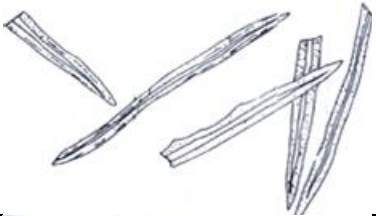





Pollen grains

Spherical, Spiny pollen grains: e.g: <i>Pyrethrum</i>	
Triangular e.g: <i>Clove</i>	
Hexagonal, with 6 germ pores: e.g: <i>Lavender</i>	



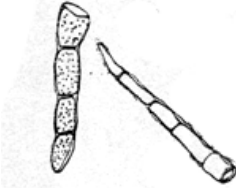


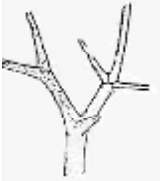
Fibers:

Cinnamon	
Cinchona	




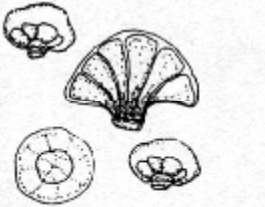
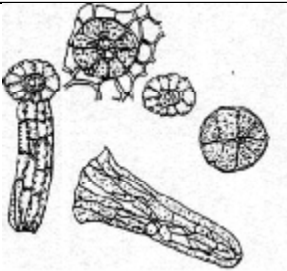
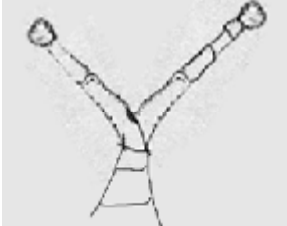
Trichomes (hairs)

A) Non – Glandular hairs:

<u>Simple unicellular hair</u> Formed of one cell	
	1- Warty cuticle hair e.g. <i>senna</i>
<u>Multicellular hair:</u> Uniseriate (Formed of one row)	
	2- Cystolith hair e.g. <i>cannabis</i>
	
	1- Enlarged basal cell covered with warty cuticle e.g. <i>Datura stramonium</i>
	
	2- Collapsed and twisted e.g <i>Digitalis</i>
	
	3- T-shaped hair e.g <i>Pyrethrum</i>
	
	4- Branched hair e.g. <i>lavender</i>



B) Glandular hairs:

 <p>Bicellular biseriate head and unicellular stalk e.g. <i>Digitalis</i></p>
 <p>Multicellular head- unicellular stalk e.g. <i>Mentha</i> (Labiaceous hair)</p>
 <p>Multicellular head- multicellular stalk e.g. <i>Cannabis</i> (Shaggy hair)</p>
 <p>Branched hair e.g. <i>Hyoscyamos</i></p>