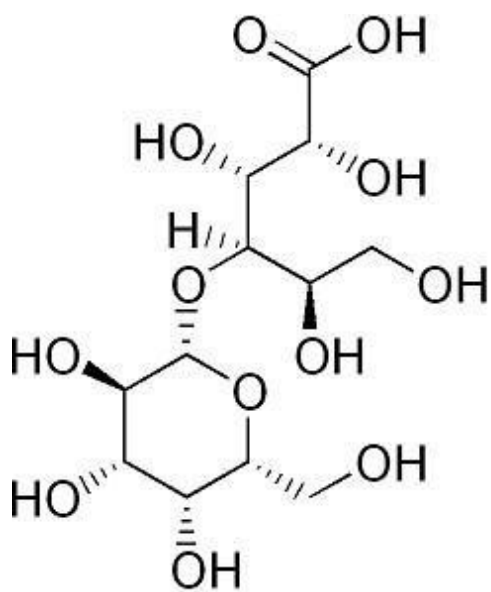
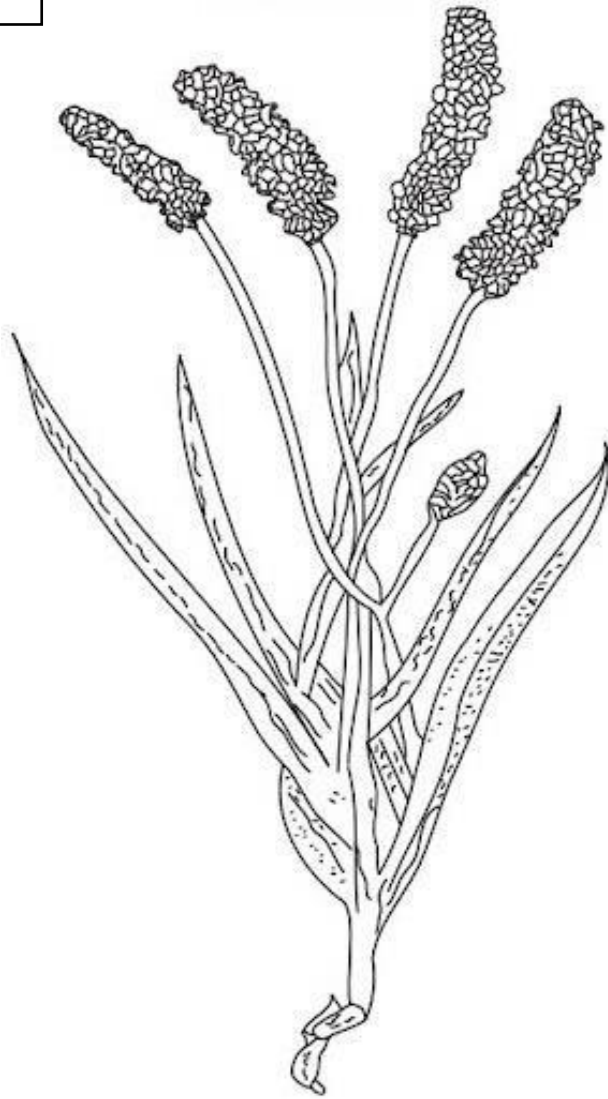
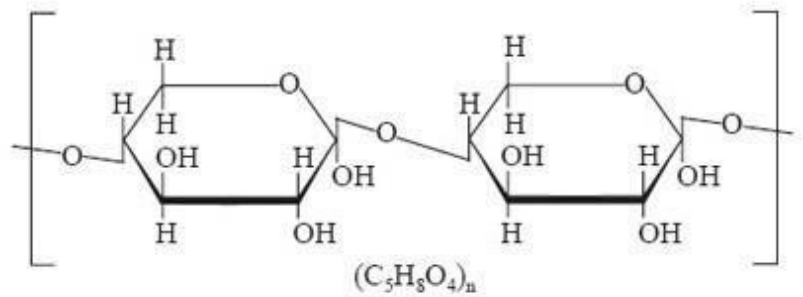


ISPAGHULA



Aldobionic acid



Pentosan

Practical -1

Date: .../.../.....

MORPHOLOGY OF ISPAGHULA**Aim:** To identify the morphological characteristics of given organised drug.**Reference:**.....**Requirements:**.....**Synonyms:** Ispaghula, Ispagol, Ishabgula, Spongel seeds.**Botanical Source:** Ispaghula consists of dried seeds of *Plantago ovata* Forskal.**Family:** Plantaginaece**Morphological characteristics (Ispaghula Seeds):**

S. No.	Morphological Character	Observation
1.	Colour	Pinkish grey to Brown
2.	Odour	None
3.	Taste	Mucilaginous
4.	Shape	Ovate, boat shaped, cymbiform
5.	Size	1.3-3.5mm long, 1-1.8 mm wide
6.	Weight of 100 Seeds	0.15-0.19 g
7.	Appearance	Seeds are hard, translucent and smooth, the dorsal (convex surface) consist of a small elongated glossy reddish-brown spot at the center while the ventral (concave surface) has a cavity having nil urn covered with a thin whitish membrane.

Chemical Constituents:

- The seeds of ispaghula contains about 10% of the mucilage found in the testa's epidermis.
- Endosperm and embryo both contain protein and fixed oil.
- Two complicated polysaccharides make up mucin, one of which is soluble in cold water and the other in hot water. It is made up chemically of aldobionic acid and pentosan.
- When pentosan is hydrolyzed, xylose and arabinose are produced, whereas galacturonic acid and rhamnose are produced by aldobionic acid.

Uses:

- Ispaghula seeds work very effectively as a demulcent and bulk laxative for people who have chronic constipation.
- Ispaghula mucilage consists of only mechanical laxative effects.
- It is also used in conditions like, dysentery, persistent diarrhea, duodenal ulcers, and piles
- It also provides calming effect to people.
- Ispaghula husk also possess similar function.

Report: The given organised drug was identified as.....

Questions Bank

1. What is the solubility of Ispaghula?
2. Write the botanical name of Ispaghula.
3. What are the uses of Ispaghula husk?
4. Write the name of chemical constituent of Ispaghula.
5. Write the name of polysaccharides found in Ispaghula.
6. Write a note on piles.
7. What is the laxative effect?
8. What is the Mucilaginous taste?
9. Which part of Ispaghula seed contains contain protein and fixed oil.
10. Paste the one marketed preparation of Ispaghula.