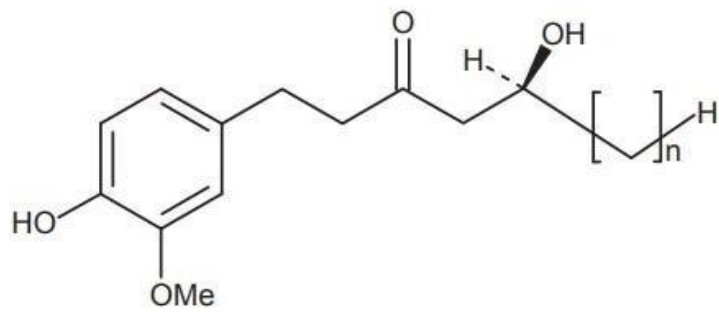
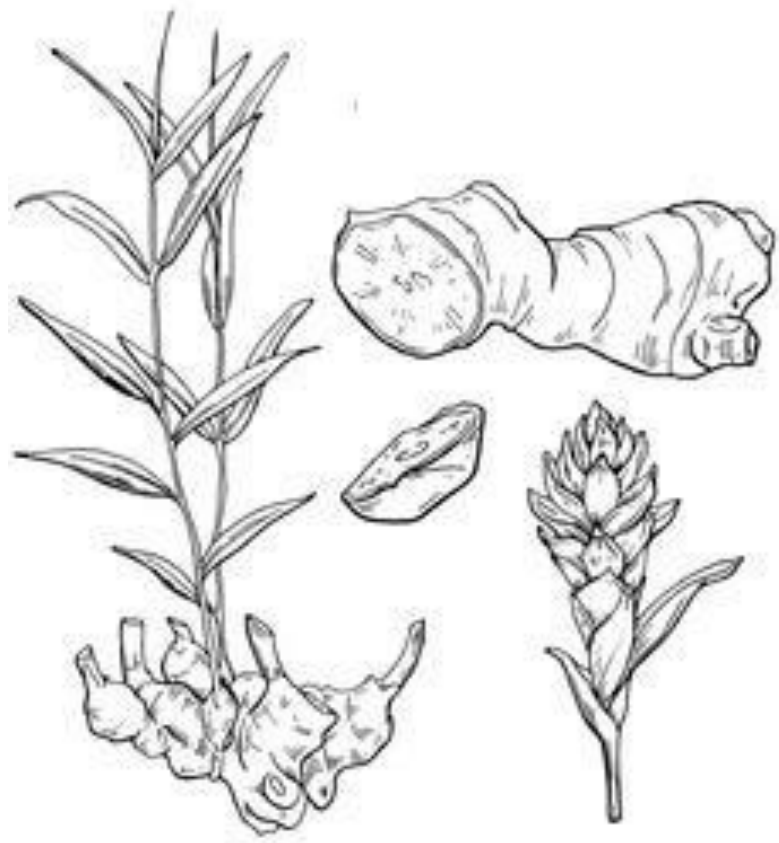
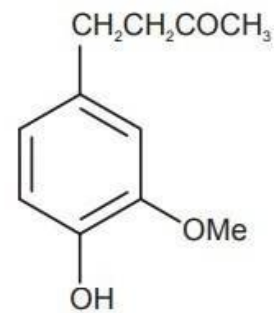


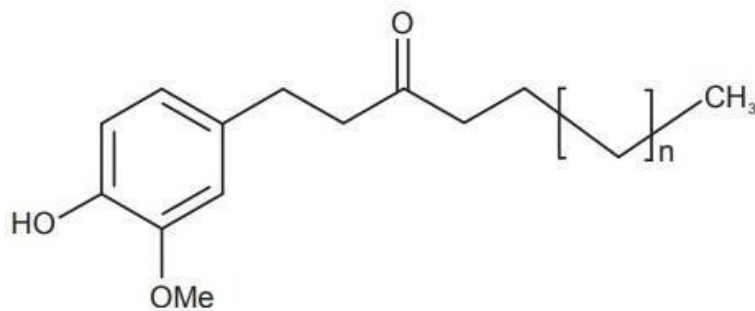
**GINGER**



**Gingerols (n = 0,2,3,4,5,7,9)**



**Zingerone**



**Shogaols (n = 4,5,7,9,10)**

**Practical -6**

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

### **MORPHOLOGY OF GINGER**

**Aim:** To identify the morphological characters of given organised drug.

**Reference:**.....  
.....

**Requirements:**.....

.....**Synonyms: Adarak, Zingiber**

**Biological Source:** Ginger belongs to oleo gum resin category and is obtained from the rhizomes of **Zingiber officinale Roscoe**.

**Family: Zingiberaceae**

**Morphological characteristics (Ginger Rhizome):**

| S. No. | Morphological Character | Observation |
|--------|-------------------------|-------------|
| 1      | Colour                  |             |
| 2      | Odour                   |             |
| 3      | Taste                   |             |
| 4      | Shape                   |             |
| 5      | Size                    |             |
| 6      | Extra features          |             |

**Chemical constituents:**

- The rhizome of ginger contains volatile oil, fat, starch, moisture, fiber, and inorganic substance.
- The volatile oil contains monoterpene and sesquiterpene hydrocarbons, oxygenated terpene derivatives, phenyl propanoids and is also responsible for its distinct aroma.
- It also contains  $\alpha$ -zingiberene,  $\beta$ -sesquiphellandrene,  $\alpha$ -curcumene,  $\beta$ -bisabolene,  $\alpha$ -farnesene, geranial, and citral.
- The phenolic ketones in ginger, such as Zingerone, gingediols, paradols, shogaols, o-methyl ethers, and hexahydro curcumin, are responsible for its pungency and medicinal effects.

**Medicinal Uses:**

- It serves as an aromatic, stimulant, carminative, and flavouring ingredient.
- Ginger oil is used to make drinks, liqueurs, and mouthwashes.
- It inhibits parasite diseases.

- It promotes stomach motility and used for suppression of nausea and gastro-intestinal responses.
- It works well to manage nausea and vomiting caused by surgeries as well as hyperemesis gravidarum.
- Ginger also possesses anti-platelet aggregation, analgesic, antipyretic, antitussive, antibacterial, anthelmintic, fungicidal, and antiulcer properties.
- Limed ginger has been developed by lime-coating in order to enhance its color and quality. It is done mostly for long-term ginger storage.

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

## Questions Bank

1. What is the order of Ginger?
2. Write the botanical name of Ginger.
3. What are the uses of Ginger?
4. Write the name of chemical constituent of Ginger.
5. What is the nausea?
6. Write a note on morphological characters of Ginger.
7. What is Hindi name of nausea?
8. Draw the chemical structure of Gingerol.
9. What is the antipyretic effect?
10. Paste the one marketed preparation of Ginger.