



25047491

QP CODE: 25047491

Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2025

Third Semester

M Sc APPLIED CHEMISTRY

Core Course - CH030301 - ESSENTIAL OILS AND AROMATICS

2019 ADMISSION ONWARDS

8B85293C

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Mention the important parts of the equipment used for the hydro distillation of aromatic plants.
2. Give the drawbacks of maceration.
3. What are the major sources and uses of clove oil and vetiver oil?
4. What is the use of Se dehydrogenation in the structure elucidation and higher terpenes?
5. What is the natural source of menthone? How is it prepared?
6. Draw the structure of cinnamyl alcohol.
7. Draw the structure of Eugenol?
8. What are the chemical constituents of cardamom and pepper? What is its nature?
9. Discuss the method of production of saffron.
10. Mention the basic effects of spices when used in foods.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Give the uses of turpentine oil, jasmine oil, lavender oil and sandalwood oil.
12. What is the molecular formula of Caryophyllene? Explain a method for the synthesis of Caryophyllene?
13. Explain the synthesis of α -Terpineol .





14. Explain the properties and reactions of Citral.
15. Give the results of UV Visible and mass spectral analysis results of a) Ocimene b) Citral C) geraniol.
16. How the following pairs distinguished? a) Anisaldehyde & Benzaldehyde b)Cinnamyl alcohol & Cinnamyl acetate.
17. What is artificial Musk? How they are produced? What are their uses?
18. Discuss the important uses of spice oil and oleoresins of pepper and turmeric.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Write brief notes on the sources, isolation, nature, chemical constituents and uses of rosemary oil, camphor oil, eucalyptus oil and lemon oil.
20. Write down the steps involved in the biosynthesis of sesquiterpenoids from acetic acid.
21. Describe the production, structure, properties & uses of a) Cinnamyl acetate b) Geranyl acetate.
22. Give a brief account on the sources, production, nature, chemical constituents and uses of the spices a)Mace b) Cinnamon c) Ginger and d) Turmeric.

(2×5=10 weightage)

