

D 143131

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Name.....

Reg. No.....

**FOURTH SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, APRIL 2026**

(CBCSS)

Chemistry

CHE 4E 04—PETROCHEMICALS AND COSMETICS

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

Part A*Answer any **eight** questions.**Each question carries a weightage of 1.*

1. What is the cause of knocking in petrol engine ?
2. What are the uses of aromatic hydrocarbons ?
3. Distinguish between rectified spirit and methylated spirit.
4. Differentiate between flash point and fire point.
5. What are the advantages of cap tray columns ?
6. What are the specialties of storage tanks used in petroleum processing ?
7. Discuss the method of liquefaction of petroleum gases.
8. What are the main ingredients of hair dye ?
9. What is the purpose of demercaptanisation ?
10. What are the main chemicals used in body creams and body lotions ?

(8 × 1 = 8 weightage)

Part B*Answer any **six** questions.**Each question carries a weightage of 2.*

11. Describe the reforming process in the petroleum industry ?
12. Illustrate the method of obtaining ethylene by hydrocarbon cracking.

Turn over

13. How acetaldehyde is prepared in industry.
14. Discuss the methods for finding out the viscosity of an oil blend.
15. Discuss the common types of condensers used in petroleum refining.
16. Discuss the processing of lubrication oils from petroleum.
17. Explain the new methods of purification of petroleum products.
18. Describe the ingredients used in lipstick with their functions.

(6 × 2 = 12 weightage)

Part C

*Answer any **two** questions.*

Each question carries a weightage of 5.

19.
 - a) Explain the refining process of crude oil.
 - b) Explain the chemical processing of aromatic hydrocarbons.
20.
 - a) Explain the industrial synthesis of ethyl acetate.
 - b) Explain the various sulfur compounds present in crude oil. What are the consequences of sulfur in fuel ?
21.
 - a) Illustrate the various petroleum processing equipments.
 - b) Explain the processing of solvents and thinners from petroleum.
22.
 - a) Explain the alkaline purification method of petroleum products.
 - b) Explain the preparation method of colognes and after shave lotions.

(2 × 5 = 10 weightage)