

376548

C 41958

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, APRIL 2023**

(CBCSS)

Chemistry

CHE 4E 04—PETROCHEMICALS AND COSMETICS

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

**Section A**

*Answer any **eight** questions.*

*Each question carries a weightage of 1.*

1. What are antiknock agents ? Mention their function.
2. What is unleaded petrol ?
3. Name the saturated hydrocarbons from natural gas.
4. Define Diesel index. Mention its significance.
5. Name the important sulphur compounds in petroleum.
6. How is absolute alcohol prepared from rectified spirit ?
7. What are Paraffins ? Mention their use.
8. What are lubricants ? Mention their use.
9. What is the purpose of Hydro refining of petroleum products ?
10. What are the ingredients of Antiperspirants ?

(8 × 1 = 8 weightage)

**Section B**

*Answer any **six** questions.*

*Each question carries a weightage of 2.*

11. Distinguish between thermal and catalytic cracking.
12. Explain the chemical processing of aromatic hydrocarbons of petroleum.

**Turn over**

13. Explain : (i) flash and fire points (ii) cloud and pour points.
14. How are rectification and distillation of crude petroleum differ/related ? Explain.
15. Explain the manufacture of methanol from wood.
16. Give the composition of fuel for gas turbine engines.
17. Describe the purification of petroleum products by DC electric field.
18. Give the materials used and express the role of each of them in Hair curling.

(6 × 2 = 12 weightage)

### Section C

*Answer any two questions.*

*Each question carries a weightage of 5.*

19. Give an account of distillation curves of petroleum.
20. Explain the need and role of Boilers, Condensers, Pipe furnaces and pipe lines during petroleum processing.
21. Write down the Industrial synthesis of the following :  
(i) Ethyl acetate ; (ii) Isopropanol ; (iii) Ethylene glycol ; and (iv) Acetone
22. Discuss the role of chemical ingredients in the manufacture of : (a) Perfumes ; (b) Deodorants  
(c) Lipsticks ; (d) Creams and lotions.

(2 × 5 = 10 weightage)