

Register No.:

915

April 2024

Time - Three hours
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART - A

1. What is the composition of petroleum?
2. Write about the classification of crude petroleum.
3. Write down the uses of wax.
4. Define isomerisation.
5. What is dehydrogenation?
6. List out the uses of Nitrobenzene.
7. Give the industrial applications of Formaldehyde.
8. Give the flow diagram of manufacturing maleic anhydride from Benzene.
9. Write any three importance of forecasting energy requirement in process industry.
10. State the importance of waste heat recovery from stack gas and boilers.

[Turn over.....

PART – B

11. (a) Discuss about the petroleum products from crude oil refining and their boiling ranges.
(Or)
(b) Explain the different tests of crude oil and its significance.
12. (a) Discuss about the sweetening of petroleum and Hydrocracking.
(Or)
(b) Explain about the manufacturing process of Lube oil.
13. (a) Discuss about the manufacture of phenol and acetone by isopropyl benzene oxidation.
(Or)
(b) Explain the dehydrogenation of ethyl benzene to styrene.
14. (a) Explain the manufacture of Phthalic anhydride from o-xylene.
(Or)
(b) Discuss with flow diagram and uses of Butadiene from dehydrogenation of Butane.
15. (a) Evaluate the energy efficiency in Heat exchanger and cooling tower in distillation column.
(Or)
(b) Explain about the Energy Audit in existing process industry.
