

**5th Sem.**

**Branch : Chemical**

**Subject : Petroleum Refining & Petrochemicals**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)**

Q.1 \_\_\_\_\_ base crude oil is also called asphaltic crude. (CO1)

- a) Paraffinic
- b) Naphthenic
- c) Mixed
- d) Aromatic

Q.2 \_\_\_\_\_ convert n-paraffins to i-paraffins. (CO1)

- a) Alkylation
- b) Polymerisation
- c) Isomerisation
- d) None of these

Q.3 Aniline point is a property of the (CO2)

- a) Diesel
- b) LPG
- c) Naphtha
- d) Gasoline

Q.4 Butadiene is a/an (CO4)

- a) Di-Olefin
- b) Naphthene
- c) Aromatic
- d) Olefin

Q.5  $H_nH_{2n}$  is the general formula for (CO2)

- a) Olefins
- b) Naphthenes
- c) Both (A) and (B)
- d) Neither (A) nor (B)

- Q.6 Hydrofining is the most recent and effective methods for the (CO2)
- a) Removal of sulphur
  - b) Improvement of smoke point
  - c) Reduction of breathing loss
  - d) Improvement of viscosity index

### Section-B

**Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)**

- Q.7 Write full form of LPG. (CO1)
- Q.8 Write the uses of Butadiene. (CO4)
- Q.9 Write the name of any one theory of origin of petroleum. (CO1)
- Q.10 Name one chemical derived from acetylene. (CO4)
- Q.11 Name any one chemical derived from Butenes. (CO4)
- Q.12 What is cloud point. (CO2)

### Section-C

**Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)**

- Q.13 Write uses of any one C1 compound. (CO4)
- Q.14 Explain manufacturing process of butadiene. (CO4)
- Q.15 Explain the process of vinyl chloride. (CO4)
- Q.16 Write about pre treatment of petroleum. (CO1)
- Q.17 Discuss about octane and cetane number. (CO2)
- Q.18 Explain the reforming and its type. (CO3)
- Q.19 List major petrochemical plants in India. (CO1)

- Q.20 Discuss the Refinery product uses. (CO1)
- Q.21 Explain about vacuum distillation with products. (CO1)
- Q.22 With flow sheet, discuss about petroleum refinery. (CO1)

### Section-D

**Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)**

- Q.23 Define cracking? With flow sheet, explain the process of fluidised bed catalytic cracking. (CO3)
- Q.24 Explain the manufacturing process of Ethanol with its formula and its properties. (CO4)
- Q25 Write short note on:
  - a) Desalting of crude oil (CO1)
  - b) Properties of Phenol and Styrene (CO4)