

- Q.29 Write a detailed overview of the fractional distillation process of crude oil, including the principles, equipment used, and separation of products.
- Q.30 Define petrochemicals and explain their significance in the chemical industry.
- Q.31 Describe the properties and uses of C₃ compounds, emphasizing acetone.
- Q.32 Write the refinery product uses.
- Q.33 Write about the Composition and classification of petroleum
- Q.34 Explain aromatic compound over C₃ compound.
- Q.35 With flow sheet, the manufacturing processes for ethanol, including raw materials, reactions involved and key equipment.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Evaluate significant engineering problems associated with aromatic compound manufacturing, particularly in the case of phenol.
- Q.37 Describe the manufacturing about PVC with flow sheet and its properties.
- Q.38 Write short note on any three:-
- Butanol
 - Raw material for petrochemical industry
 - crude oil
 - Fractional distillation

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Roll No.

5th Sem / P & P

Subject:- Petroleum Refining and Petrochemicals

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Which C₃ compound is commonly used in nailpolish removers?
- Acteone
 - Methanol
 - Ethanol
 - Propanol
- Q.2 What is the primary or main method used to seperate different components of crude oil in a refinery?
- Cracking
 - Polymerization
 - Fractional distillation
 - Hydrogenation
- Q.3 What is the IUPAC name for the alkane with three carbon atoms?
- Ethane
 - Methane
 - Propane
 - Butane
- Q.4 Which C₁ compound is commonly used as a solvent and antifreeze?
- Methanol
 - Ethanol
 - Propanol
 - Butanol
- Q.5 What is the primary use of butanol in industry?
- Production of synthetic rubber
 - Fuel additive
 - Paint and varnish manufacturing
 - Food flavoring

- Q.6 Which functional group does the compound CH_3COOH belong to?
- a) Alcohol b) Aldehyde
c) Carboxylic acid d) Ketone
- Q.7 What is the main purpose of the purification process in petroleum refining?
- a) To increase the boiling points of products
b) To remove impurities and contaminants
c) To reduce the viscosity of crude oil
d) To enhance coloration of products
- Q.8 Production of plastics like PVC is manufacture by the use of _____
- a) C_4 compound b) C_1 compound
c) C_3 compound d) C_2 compound
- Q.9 The chemical composition of carbon in petroleum is
- a) 10.0 to 14.0 % b) 83.0 to 87.0%
c) 0.05 to 6.0% d) 0.1 to 2.0 %
- Q.10 What is the definition of petrochemicals?
- a) Compounds derived from plants and animals
b) Chemicals derived from petroleum and natural gas
c) Organic compounds found in rocks and minerals
d) Synthetic materials used in construction

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Write one advantage of petrol.
- Q.12 What is the primary use of methanol in industry?
- Q.13 What are the products of fractional distillation of crude oil?

- Q.14 Write full form of CNG?
- Q.15 Write one use of C_1 compound?
- Q.16 Write IUPAC name of aldehyde.
- Q.17 Name any one petrochemical plant in India.
- Q.18 Define petrochemical?
- Q.19 Write formula for API gravity
- Q.20 Which functional group is present in a butanol molecule?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Discuss about IUPAC naming of Ketones, Ester, Carboxylic acid.
- Q.22 Write about Composition and classification of petroleum
- Q.23 Describe the methods and challenges involved in the transportation of crude oil and its refined products.
- Q.24 Describe the properties, applications, and industrial significance of C_1 compounds like methanol.
- Q.25 With examples and explain the step-by-step procedures for naming organic compounds using IUPAC rules.
- Q.26 Provide a list of major petrochemical plants in India, highlighting their contributions to the industry and the economy.
- Q.27 Explain the manufacturing process for butanol, including raw materials, chemical reactions, and equipment.
- Q.28 Difference between C_1 and C_2 compound.