

- Q.26 Write the detailed overview of the fractional distillation process of crude oil, including the principles, equipment used, separation of products.
- Q.27 With a flowsheet, tell the major process steps in the production of methanol.
- Q.28 List major petrochemical plant in India.
- Q.29 With detailed flowsheet illustrating the critical steps in phenol production.
- Q.30 Explain petrochemicals products significance in the chemical industry.
- Q.31 Explain the composition and classification of petroleum. And also discuss properties of Petroleum and its products.
- Q.32 Explore the properties and industrial applications of C4 compounds, focusing on butanol.
- Q.33 Difference between c₂ and c₃ compound.
- Q.34 Explain Transportation of crude oil and its products.
- Q.35 What are the refinery product uses.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Elaborate on the manufacturing process for acetone, highlighting feedstock, chemical reactions. and process equipment.
- Q.37 With flow sheet, discuss the manufacturing about Ethanol with its formula and its properties.
- Q.38 Write short note on any three:-
- a) crude oil and their boiling ranges.
 - b) Aromatic
 - c) Petrochemical industry.
 - d) majorengg problem for phenol.

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5th Sem / P & P

Subject:- Petroleum Refining & Petrochemicals

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Which of the following is NOT a product of fractional distillation of crude oil?
- a) Gasoline
 - b) Diesel
 - c) Ethanol
 - d) Asphalt
- Q.2 Which functional group does the compound CH₃CHO belong to?
- a) Alcohol
 - b) Aldehyde
 - c) Carboxylic acid
 - d) Ketone
- Q.3 Crude oil separated by the process called _____
- a) Crystallization
 - b) Fractional distillation
 - c) Decantation
 - d) Sublimation
- Q.4 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

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- Q.5 What property characterizes aromatic compounds?
- Low reactivity
 - Sweet odor
 - High heat conductivity
 - Ring structure with alternating single and double bonds
- Q.6 What is the primary source of raw materials for the petrochemicals industry?
- Coal
 - Water
 - Natural gas
 - Air
- Q.7 Which of the following is NOT a product of fractional distillation of crude oil?
- Gasoline
 - Diesel
 - Ethanol
 - Asphalt
- Q.8 Phenol is classified as which type of compound?
- Alkane
 - Alkene
 - Alkyne
 - Aromatic compound
- Q.9 _____ base crude oil is also called asphaltic crude.
- Paraffinic
 - Naphthenic
 - Mixed
 - Aromatic
- Q.10 Sweetening of petroleum product means the removal of
- Wax
 - Water
 - organic impurities
 - Sulphur & its compounds

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SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Which functional group is present in a phenol molecule?
- Q.12 What is petroleum?
- Q.13 Write any one use of methanol?
- Q.14 Name any one refinery in India
- Q.15 What is the IUPAC name for the alkane with two carbon atoms?
- Q.16 _____ is used as a solvent, in nail polish removers.
- Q.17 Write one use of C₁ compound like methanol.
- Q.18 Write full form of LPG.
- Q.19 Write one application of petrochemical?.
- Q.20 Write two uses of diesel.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 With Flow sheet, discuss about the Petroleum refinery.
- Q.22 Describe about pretreatment of petroleum.
- Q.23 Discuss the primary raw materials used in the petrochemicals industry and their sources.
- Q.24 Describe a comprehensive overview of the manufacturing process for vinyl chloride, including raw materials, reactions, and equipment.
- Q.25 Explain the principles and rules of IUPAC naming for organic compounds, including alkanes, alkenes, alkynes, cyclic compounds, and aromatic compounds.

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