

- Q.29 Discuss petrochemicals from petroleum.
 - Q.30 Discuss the petrochemical product uses.
 - Q.31 Explain IUPAC naming for functional group like ester and carboxylic acid.
 - Q.32 Write the difference between C3 and C4 compound.
 - Q.33 With flow sheet, discuss about styrene.
 - Q.34 list major Petrochemical plant in India.
 - Q.35 Write about naphtha cracking.

SECTION-D

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

- Q.36 What is aromatic compound. With flow sheet, explain the process of manufacturing of phenol.

Q.37 Discuss the manufacturing of PVC with its properties and flow sheet.

Q.38 Write short note on any three:

 1. Properties of C1 compound
 2. Rubber
 3. Maleic anhydride
 4. IUPAC naming

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5th Sem / Branch : Chemical Eng. Sub. : Petrochemicals Technology

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Which of the following end product is produced by the ethylene obtained from petroleum?

 - a) Formaldehyde
 - b) Esters
 - c) Cellulose Acetate
 - d) Synthetic rubber

Q.2 Propylene - used as a monomer and a chemical feedstock

 - a) True
 - b) False

Q.3 How is cumene manufactured?

 - a) Propylene alkylation of benzene
 - b) Catalytic hydrogenation of isopropanol
 - c) Oxidation of butane
 - d) Oxidation of propylene

Q.4 What are the by products produced in the manufacture of acrylonitrile from propylene-ammonia-air oxidation process?

 - a) Cumene and acetone
 - b) Cumene and acetonitrile
 - c) Acetonitrile and hydrogen cyanide
 - d) Cumene and hydrogen cyanide

Q.5 Vinyl chloride is least soluble in _____.

- a) Diethyl ether
- b) Water
- c) Alcohols
- d) Carbon tetra chloride

Q.6 Which distillation technique is used to separate butane, butylenes, and butadiene?

- a) Fractional distillation
- b) Vacuum distillation
- c) Extractive distillation
- d) Steam distillation

Q.7 Which among the following methods is used for the manufacture of industrial methanol?

- a) Contact process b) Kraft's process
- c) From synthesis gas d) From blue gas

Q.8 Full form of LDPE

- a) Low-delay polyethylene
- b) Low-density polymerisation
- c) Left-density polyethylene
- d) Low-density polyethylene

Q.9 Which polymerization technique is used for the manufacture of Industrial PVC?

- a) Solution polymerization
- b) Bulk polymerization
- c) Emulsion polymerization
- d) Addition polymerization

Q.10 Denatured ethanol is safe for drinking.

- a) True
- b) False

SECTION-B

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

Q.11 What is C1 compound?

Q.12 Name any one raw material used in petrochemical plant.

Q.13 Write formula for propane.

Q.14 Define Petrochemical technology?

Q.15 Name any one property of ethylene.

Q.16 Write two properties of butanol.

Q.17 What is aniline point?

Q.18 Write one examples of C2 compound.

Q.19 Write molecular weight of butadiene?

Q.20 What is significance of IUPAC naming?

SECTION-C

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

Q.21 Discuss about ethylene oxide.

Q.22 Write about the Properties and uses for acrylonitrile.

Q.23 Write about acetone with flow sheet.

Q.24 Define cracking with example.

Q.25 Discuss about methanol with properties and major engg problems.

Q.26 Explain the process of ethanol.

Q.27 Explain manufacturing of formaldehyde.

Q.28 Write about aromatic compound.