

- Q.26 Explain about vinyl chloride with flow sheet.  
 Q.27 Explain about fractional distillation with products.  
 Q.28 Write about flash and fire point.  
 Q.29 Discuss transportation of crude oil and its product.  
 Q.30 Classify petroleum.  
 Q.31 Discuss about the IUPAC naming of functional group aldehyde and carboxylic acid.  
 Q.32 Discuss the Refinery product uses.  
 Q.33 With Flow sheet, discuss about ethanol.  
 Q.34 Write about aromatic compound over c3 compound.  
 Q.35 List major petrochemical plant in India.

### SECTION-D

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

- Q.36 Explain the manufacturing of Butanol with neat and clean flow sheet, properties and uses.  
 Q.37 Describe the manufacturing about methanol with flow sheet and its properties.  
 Q.38 Write short note on any three:-  
 1. Petroleum  
 2. Raw material for petrochemicals  
 3. Phenol  
 4. IUPAC naming of alkanes

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### 5th Sem / Branch : P & P Sub.: Petroleum Refining & Petrochemicals

Time : 3Hrs.

M.M. : 100

### SECTION-A

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

- Q.1 \_\_\_\_\_ is a plant where crude oil is boiled and distilled to separate the individual components.  
 a) Refinery b) Petrol  
 c) Diesel d) Gasoline  
 Q.2 Example of C<sub>2</sub> compound is:-  
 a) Methanol b) Butanol  
 c) Acetone d) Vinyl Chloride  
 Q.3 Reforming converts  
 a) Olefins into paraffins  
 b) Naphthenes into aromatics  
 c) Naphthenes into olefins  
 d) Naphthenes into paraffin  
 Q.4 Formula for Ethanol  
 a) C<sub>2</sub>H<sub>5</sub>OH b) CH<sub>3</sub>OH  
 c) CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>OH d) None of these

Q.5 \_\_\_\_\_ are carbon compounds that contain only double bonds.

- a) Alkanes                      b) Butanol
- c) Alkenes                      d) Phenol

Q.6 The \_\_\_\_\_ has Molecular Weight = 62.5 g/mol

- a) PVC                              b) Methanol
- c) Phenol                        d) All of above

Q.7 The properties of butanol

- a) Many plasticizers are based on butyl esters, e.g. dibutyl phthalate
- b) The monomer butyl acrylates is used to produce polymers
- c) It is the precursor to n-butylamines
- d) All of above

Q.8 Petrochemical manufacturing units differ from commodity chemical plants.

- a) True                              b) False

Q.9 Full form of ABE

- a) Acetone, butanol, ethanol
- b) Asprin, butanol, ethane
- c) Acetone, butanol, ethane
- d) Acetone, butene, ethanol

Q.10 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 %

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## SECTION-B

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

Q.11 Define petrochemical?

Q.12 What is crude oil?

Q.13 Write formula for butanol.

Q.14 Write one use of petrol?

Q.15 What is cloud point?

Q.16 Write formula of viscosity.

Q.17 Name any one petrochemical plant in India.

Q.18 Write full form of LPG.

Q.19 Write one property of C<sub>2</sub> compound?

Q.20 Write one property of vinyl chloride?

## SECTION-C

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

Q.21 Difference between C<sub>3</sub> and C<sub>4</sub> compound.

Q.22 Discuss about properties & uses of any one C<sub>1</sub> compound.

Q.23 Write about purification of petroleum?

Q.24 Describe about the phenol with flow sheet.

Q.25 Write about the IUPAC naming of alkynes and cyclic compound.

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