

- Q.28 Discuss stabilisation of crude oil.
  - Q.29 Explain the reforming & its types.
  - Q.30 Explain fixed bed process with diagram.
  - Q.31 Explain the polymerization & its types.
  - Q.32 Discuss about transportation of crude oil with diagram.
  - Q.33 Discuss about sweetening process.
  - Q.34 Describe fractional distillation of crude oil with its products.
  - Q.35 What is catalytic cracking and its example?

## **SECTION-D**

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

- Q.36 Define cracking? with flow sheet, explain the process of houdry's catalytic cracking.

Q.37 Describe about the other solvent extraction process and explain phenol extraction process with neat and clean flow sheet.

Q.38 Write short note on any three:-

1. Viscosity
  2. Stabilisation of crude oil
  3. Astm
  4. Calorific value

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## **5th Sem / Branch : Chemical Engg. Sub.: Petroleum Refining**

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

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

- Q.1 Carbon percentage (by weight) in crude petroleum may be about  
a) 65                      b) 75  
c) 85                      d) 95 Jelly

Q.2 In petroleum refining, the process used for conversion of hydrocarbons to aromatics is  
a) Catalytic cracking    b) Catalytic reforming  
c) Hydrotreating        d) Alkylation

Q.3 Aromatics have the highest \_\_\_\_\_ of all the hydrocarbons of same carbon atoms.  
a) Smoke point            b) Octane number  
c) Cetane number        d) Viscosity

Q.4 LPG when brought to atmospheric pressure & temperature will be a  
a) Liquid lighter than water  
b) Liquid heavier than water  
c) Gas lighter than air  
d) Gas heavier than air

- Q.5 Which is almost absent in crude petroleum?
- a) Olefins
  - b) Mercaptans
  - c) Naphthenes
  - d) Cycloparaffins

- Q.6 Hydrocracking employs
- a) High pressure & temperature
  - b) Low pressure & temperature
  - c) High pressure and low temperature
  - d) High temperature and low pressure

- Q.7 Reforming
- a) Uses naphtha as feedstock
  - b) Does not much affect the molecular weight of the feed
  - c) Improves the quality & yield of gasoline
  - d) All A, B and C

- Q.8 Which of the following has the maximum API gravity of all?
- a) Diesel
  - b) Kerosene
  - c) Petrol
  - d) Furnace oil

- Q.9 Crude petroleum oil is a \_\_\_\_\_ fuel.
- a) Primary
  - b) Fossil
  - c) Both A & B
  - d) Secondary

- Q.10 H/C ratio (by weight) for the same number of carbon atoms is the highest in case of
- a) Aromatics
  - b) Paraffins
  - c) Olefins
  - d) Naphthenes

## SECTION-B

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

- Q.11 Name any two uses of kerosene.
- Q.12 What is cloud point.
- Q.13 Write two uses of diesel.
- Q.14 Define pretreatment.
- Q.15 What is octane number.
- Q.16 Full form of CNG.
- Q.17 Name any one type of cracking process.
- Q.18 Define petroleum?
- Q.19 What is refining.
- Q.20 Write formula for API gravity.

## SECTION-C

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

- Q.21 Write about properties and significance of petroleum products.
- Q.22 Classifies petroleum on basis of composition.
- Q.23 Differentiate between organic acidity and Inorganic acidity?
- Q.24 Write about octane and cetane number.
- Q.25 Discuss about Desulphurization.
- Q.26 Difference between thermal and catalytic reforming.
- Q.27 With flow sheet, discuss about petroleum refinery.