SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain in detail the atmospheric distillation process, including flow diagram, products and their uses. (CO2)

Q.24 Describe the manufacturing process and applications of vinyl chloride or phenol with flow diagram. (CO4)

Q.25 What is catalytic cracking and its types? Discuss the fluidized bed catalytic cracking process with a neat sketch. (CO3)

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5th Semester/Chemical
Subject: Petroleum Refining & Petrochemicals

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The main constituent of natural gas in: (CO1)

a) Ethane b) Methane
c) Propane d) Butane

Q.2 Which property is NOT typically tested for gasoline? (CO2)

a) Octane number b) Smoke point
c) Flash point d) Aniline point

Q.3 The process of separating crude oil into different fractions based on boiling point is called: (CO2)

a) Cracking
b) Reforming
c) Fractional distillation
d) Polymerization

Q.4 Which of the following in an aromatic petrochemical? (CO4)

a) Methanol b) Ethanol

c) Phenol d) Acetone

Q.5 The main purpose of catalytic reforming is to: (CO3)

a) Remove sulfur

b) Increase octane number

c) Separate paraffins

d) Produce lubricating oil

Q.6 Ethylene is primarily produced from: (CO4)

a) Methane b) Naphtha cracking

c) Benzene d) Butane

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Name one method of transporting crude oil. (CO1)

Q.8 What is the main product obtained from vacuum distillation? (CO2)

Q.9 State the importance of smoke point in kerosene. (CO2)

Q.10 Name any one type of reforming process. (CO3)

Q.11 Write the main use of butanol. (CO4)

Q.12 Write the chemical formula of phenol. (CO4)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Classify petroleum based on its composition. (CO1)

Q.14 Describe the working principle and significance of a vacuum distillation unit. (CO2)

Q.15 Explain the difference between cloud point and pour point in petroleum products. (CO2)

Q.16 Discuss the process and significance of catalytic reforming in refineries. (CO3)

Q.17 Explain the manufacturing process of formaldehyde from methanol. (CO4)

Q.18 Describe the process and uses of acetone. (CO4)

Q.19 Write a short note on raw materials used for petrochemicals. (CO1)

Q.20 Discuss the importance of crude oil dehydration. (CO1)

Q.21 List any four petroleum refineries in India with their location and capacity. (CO1)

Q.22 Write short notes on the uses of ethanol. (CO4)