

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VII CHEMICAL : WINTER- 2022
SUBJECT : PETROLEUM REFINERY ENGINEERING

Day : Thursday
Date : 15-12-2022

W-13590-2022

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Assume suitable data if necessary.
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- Q.1 a)** Discuss on “ ASTM nomenclature for test methods and their meaning” **(05)**
b) Give classification of crude oil by considering API gravity. **(05)**
OR
- Q.1** Elaborate on “Refinery feedstock and refinery products”. **(10)**
- Q.2** Give details of atmospheric distillation with flow diagram. **(10)**
OR
- Q.2** Give details of vacuum distillation with flow diagram. **(10)**
- Q.3** Discuss with flow diagram delayed coking. Give its importance. **(10)**
OR
- Q.3** Illustrate on catalytic cracking related to following points **(10)**
i. Catalyst used
ii. Cracking reactions
iii. Cracking feedstock
- Q.4** Differentiate between hydrocracking and hydro-treating reactions. **(10)**
OR
- Q.4** Give details of reactor design for catalytic reforming with respect to **(10)**
following points
i. Catalyst
ii. Reformer feed
iii. Operating variables
- Q.5 a)** Differentiate between isomerization and alkylation. **(05)**
b) Illustrate effect of process variables on polymerization. **(05)**
OR
- Q.5** Discuss visbreaking in detail with flow diagram. **(10)**
- Q.6** Analyze wastewater treatment in petroleum refinery. **(10)**
OR
- Q.6** What are the new trends in refinery? Give examples. **(10)**

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