

B.TECH. SEM -VII (CHEMICAL 2014 COURSE (CBCS) :

SUMMER - 2018

SUBJECT: ELECTIVE –III: PETROLEUM REFINERY ENGINEERING

Day: **Monday**
Date: **21/05/2018**

S-2018-2462

Time: **02.30 PM TO 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 Differentiate between gasoline and diesel oil with respect to their specifications, characteristics and applications. **(10)**

OR

Describe the ASTM concept. Elaborate various colour codes used in petroleum industry. **(10)**

Q.2 Discuss the pre treatment processes of crude oil. **(10)**

OR

Discuss vacuum distillation in detail . Draw process flow diagram for the same. **(10)**

Q.3 Differentiate between thermal cracking and catalytic cracking. **(10)**

OR

Write short note on **(10)**
a) Catalyst used in Fluidized catalytic cracking
b) Coking process.

Q.4 Draw the hydrocracking process flow diagram and elaborate the same. **(10)**

OR

Analyze the operating parameters affecting the hydrocracking process. **(10)**

Q.5 Draw the Isomerization process flow diagram and elaborate in detail. **(10)**

OR

Draw visbreaking process flow diagram and elaborate in detail. **(10)**

Q.6 Elaborate new trends in petroleum refinery industry. **(10)**

OR

Give details of control of air pollution in petroleum refining industry. **(10)**

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