B.TECH. SEM -VII (CHEMICAL 2014 COURSE (CBCS) : WINTER - 2017

SUBJECT: ELECTIVE –III: PETROLEUM REFINERY ENGINEERING

Day: **Friday** Time: **02.30 PM TO 05.30 PM**

Date: **12/01/2018** **W-2017-2250** Max. Marks: 60

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data, if necessary.

Q.1 **a)** Give the classification of crude oil with suitable example. **(07)**

b) State the various codes required in petroleum industry. **(03)**

OR

Explain refinery process with neat diagram and various products obtained from crude oil. **(10)**

Q.2 Discuss dehydration and desalting of crude oil in detail. **(10)**

OR

Discuss the design concept of crude oil distillation column design. **(10)**

Q.3 Expalin the process of fluid catalytic cracking with neat process flow diagram. **(10)**

OR

Write short note on **(10)**

a) Delayed coking
b) Thermal cracking.

Q.4 Elaborate semi rgenerative catalytic reforming process. **(10)**

OR

Discuss the reactions of catalytic reforming in detail . **(10)**

Q.5 Draw sulfuric acid alkylation process flow diagram and elaborate the same. **(10)**

OR

Analyze the operating variables in alkylation process. **(10)**

Q.6 Give ecological consideration in petroleum refinery. **(10)**

OR

Elaborate alternative energy sources. **(10)**

* * * * *