2018-19
M.TECH. (AUTUMN SEMESTER) EXAMINATION
PETROLEUM PROCESSING AND PETROCHEMICAL ENGINEERING
PETROLEUM REFINERY ENGINEERING
PK 731 (ELECTIVE III)

Maximum Marks: 60  Credits: 04  Duration: Two Hours

Answer all questions.
Assume suitable data, if missing.
Notations and symbols used have their usual meaning.

Q.No.  Question

1. Discuss any three of the following:
   a) Indian refining industry
   b) Distillation fractions and their quality control tests.
   c) Blending for the production of Gasoline and Diesel fuels.
   d) Refinery furnaces.

2. Write a detailed note on Fluid Catalytic Cracking. Also discuss HS-FCC and DCC in brief.

3. (a) Discuss the process of catalytic reforming with special reference to reactions involved and modes of operation.

3. (b) Differentiate between different hydrogen processes employed in a petroleum refinery such as hydrotreating, hydrocracking, hydroprocessing, etc. Discuss Hydrodesulfurisation process with special focus on operational and safety aspects.

OR

3'. Discuss the following residue upgradation processes in detail:
   a) Solvent Deasphalting
   b) Gasification

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