Total No. of Questions : 8] *[Total No. of Printed Pages : 2*

Roll No .....

CM-7004(1)-CBGS

B.E. VII Semester

Examination, December 2020

Choice Based Grading System (CBGS)

Petroleum Processing Technology

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Discuss the various theories of origin of petroleum.
   b) Discuss in detail the types of hydrocarbon series, mode of reactions (any two series).

2. a) What is vacuum distillation and why it is used in petroleum refining? Explain the process parameters used in vacuum distillation and mention the products obtained from it with boiling range.
   b) What is catalytic reforming? Mention the various reaction involved in catalytic reforming and which reactions are contributing in its objectives. Explain the effect of various operating variables in catalytic reforming.

3. a) Define in detail the mechanism of hydro cracking.
   b) Define and explain the term Isomerization and Polymerization.

4. a) Define 'Cracking' along with its classification.
   b) Describe in detail the mechanism of 'Visbreaking'.

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5. a) What is reformulated gasoline? How it is different from gasoline? Give some example of reformulated gasoline.
   b) What is LPG? Explain the sources and process of recovery of LPG from petroleum refinery. Mention the composition and properties of LPG in India.

6. a) What do you mean by hydro treating explain with suitable example?
   b) Discuss the various methods of heavy residine up-gradation techniques.

7. a) Explain the process of delayed coking with process flow sheet. What are the feed stock for coking and the various products obtained from coking.
   b) Explain the process for hydro treatment of lubricating oils. How it will improve the performance of lubricating oil? How this process differs with hydro-cracking?

8. a) Describe the process along with flowsheet the process for the manufacture of reformlated Gasoline.
   b) Discuss the methods of hydrogen recovery in the refinery.

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