

B.E. (Chemical) 3 rd Year (6 th semester) Petroleum Processing Engineering (Theory) Sessional  
-II

M.M: 25 (Answer the following questions, the choice is only for the first question)

Q. 1. Cracking methods include thermal cracking and catalytic cracking.

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a) Give the conditions for thermal cracking.

b) Briefly, what happens to an individual alkane molecule as it splits into smaller bits during thermal cracking?

OR

c) Give the conditions for catalytic cracking.

d) Briefly, what happens to an individual alkane molecule as it splits into smaller bits during catalytic cracking?

Q. 2. Why Alkylation is important in refining process? Why low temperature is required for alkylation when we use  $H_2SO_4$  as catalyst? 10

Q.3. Why Polymerisation is an important process in gasoline manufacturing? What are the products of isomerization? 5