

Total No. of Questions : 10]

SEAT No. :

P2303

[Total No. of Pages : 2

[5871]-700

B.E. (Chemical)

PETROCHEMICAL ENGINEERING

(2015 Pattern) (Elective - IV) (Semester - II) (409352D)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) Answer any five questions.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Assume suitable data, if necessary.

Q1) Describe the main building blocks for petrochemical synthesis and their sources. [10]

OR

Q2) Write short note on Petrochemical industries in India. [10]

Q3) Draw and explain production of ethylene and write down its products. [10]

OR

Q4) Write in details about the various separation and purification techniques used in Petrochemical industry? [10]

Q5) a) With neat sketches explain in detail about production Ethylene glycol as a second generation intermediates. [8]

b) Write short note on different types of furnaces used in petrochemical plants. [8]

OR

Q6) a) How the olefins and aromatics are used to produce second generation intermediates? Explain with example. [10]

b) Write a note on Fluid Catalytic Cracking units. [6]

P.T.O.

**Q7) a)** Define polymerization. Describe the steps and mechanisms of addition Polymerization. [9]

b) Describe in detail bulk, emulsion and suspension types of polymerization. [9]

OR

**Q8) a)** With neat sketches explain in detail about production of Teflon along with its Engineering Problems. [9]

b) What is addition polymerization? Describe the steps and mechanisms of addition Polymerization. [9]

**Q9)** Write in detail about pollution control - norms and methods of elimination in petrochemical industries. [16]

OR

**Q10)** Write a note on following : [16]

a) Safety consideration in petrochemical plants

b) CPCB norms in Petrochemical industries

