

Total No. of Questions : 10]

SEAT No. :

P4002

[4959]-1190-A

[Total No. of Pages :2

B.E.(Chemical)

**d:PETROCHEMICAL ENGINEERING
(2012 Course) (Semester-II)(Elective-IV) (409352)**

Time :2½Hours]

[Max. Marks : 70

Instructions to the candidates:

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

Q1) Discuss the importance of Petrochemicals and the status of Petrochemical industries in India **[10]**

OR

Q2) What are the main basic building blocks of petrochemical industry explain with suitable examples? Give the details of petrochemical products that are produced from benzene? **[10]**

Q3) What are basic principle sources of aromatics? Describe the BTX aromatic separation by suitable diagram. **[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. **[12]**

b) Discuss the various types and uses of second generation intermediates in petrochemicals. **[6]**

OR

Q6) With neat schematic diagram describe about the production of maleic anhydride from benzene? And also discuss the major engineering problems? **[18]**

P.T.O.

Q7) a) What is addition polymerization. Describe the steps and mechanisms of addition polymerization [10]

b) Explain classification of different polymerization process along with its advantages and disadvantages. [6]

OR

Q8) a) With neat sketches explain in detail about production of PVC along with its engineering problems [10]

b) What are various polymeric products? Differentiate between different polymerization processes. [6]

Q9) a) Discuss about recent advances in petrochemical plants & refineries in India. [10]

b) Major petrochemical plants in India as well as in world. [6]

OR

Q10) Write a note on following. [16]

a) Pollution control aspects in Petrochemical industries

b) Safety consideration in petrochemical plants

