

Register Number :

Name of the Candidate :

**7 2 3 5**

**DIPLOMA EXAMINATION, 2010**

**(PETROLEUM REFINING ENGINEERING)**

**( PAPER - II )**

**120. PETRO CHEMICALS**

December ]

[ Time : 3 Hours

Maximum : 100 Marks

*Answer any FIVE questions.*

*All questions carry equal marks.*

(5 ×20=100)

1. (a) What are the various feed stocks used in petrochemical industries ? Explain. (10)
- (b) Discuss the various factors which determine the survival of petrochemical industries in India. (10)
2. Explain the various petrochemicals obtained from ethylene and xylene. (20)

**Turn Over**

3. Describe the fluidised bed catalytic cracking process for enhancing the octane number of fuel with a neat diagram. (20)
4. Write short notes on the following :
- (a) Plastics. (8)
  - (b) Polystyrene. (8)
  - (c) Polyurathenes. (4)
5. (a) Discuss the process of production of methanol from gas synthesis. (10)
- (b) Explain the process of production of hexamethylene diamine from methanol.(10)
6. Explain the process of ethylene production by naptha cracking and how ethylene is recovered from cracked gases. (20)
7. Discuss the process of production of isopropyl alcohol by sulphuric acid hydration and direct hydration methods. (20)
8. Discuss the following in detail :
- (a) SNG from naptha. (10)
  - (b) Lurgi gasification process. (10)

9. Discuss in detail the production of polystyrene with the help of a neat flow diagram. (20)
10. Write short notes on the following :(4 × 5=20)
- (a) Thermal cracking.
  - (b) Poly urethanes.
  - (c) Isomerisation.
  - (d) Catalytic cracking.