

**Total No. of Pages : 02**

**B.Tech.(Petroleum Refinery Engineering) (2013 Batch) (Sem.-6)**

**Subject Code : BTPC-602**

**Paper ID : [74038]**

**Max. Marks : 60**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

**1. Answer briefly :**

- a) Give two applications of PVC.
- b) What is synthesis gas?
- c) What are the process parameters for isomerisation?
- d) What is usually the feed for alkylation process?
- e) Write down the chemical formula of Acrylonitrile butadiene styrene.
- f) Write down the health hazards of styrene.
- g) Write the chemicals produced from ethylene.
- h) Write down the chemical reaction for production of styrene by dehydrogenation of ethyl benzene.
- i) Write down two important properties of Acrylonitrile butadiene styrene.
- j) Give two applications of PET.

**SECTION-B**

2. Discuss in details about the main building blocks of Petrochemical Industry.
3. Note the complete process for obtaining Glycol as a raw material for production of Nylon fibres.
4. Give classification of Hydrocarbons, and discuss Olefinic petrochemicals with applications.
5. Write short notes on the following :
  - a) Separation of aromatics.
  - b) Manufacture of Vinyl Chloride monomer (without flow sheet).
6. Discuss with a neat flow sheet the conversion of ethyl benzene to styrene.

**SECTION-C**

7. Write short notes on the following :
  - a) Melamine formaldehyde resin.
  - b) Applications of acetaldehyde and acrylonitrile.
8. Describe in brief the process of manufacture of Nylon-6.
9. Describe the process of manufacture of ethylene oxide from ethylene and oxygen.