NC-522  Seat No._______
First Year B. Sc. Examination
April/May – 2003
Industrial Chemistry : Paper – I
(Vocational)

Time :  Hours]  [Total Marks :

1  (a) What is catalytic cracking? Give flow diagram of fluidized bed catalytic cracking.
    (b) Discuss the industrially important chemicals derived from ethylene.
    (c) Write a note on uses of natural gas.

    OR

1  (a) Write a note on activated charcoal.
    (b) Discuss isomerism with illustrations.
    (c) Describe the chemical constitution of coal. Give uses of coke.

2  (a) Give classification of fuels. Explain calorific value of coals.
    (b) Explain antiknocking term. Discuss one method to improve antiknocking properties of gasoline.
    (c) Write a note on manufacture of starch.

    OR

2  (a) Write a difference between graphite and diamond.
    (b) What is primary solid fuel? Explain origin and formation of coal.
    (c) Discuss the coal-gas treatment plant with flow diagram.

3  (a) Name different methods for concentrating the ores.
    Give a brief account of any one of them.
    (b) Write a note on importance of fluxes.
    (c) Explain the principles of extraction of methods from sulphide ores.

    OR

NC-522]  1  [Contd...
3. (a) Explain the term: Smelting and slags.  
(b) Write a note on technology of roasting.  
(c) Write a note on different types of furnaces.

4. (a) Write a note on reduction of metals.  
(b) Give a brief account of orthosilicates. Explain the structure of silica.  
(c) Give physical methods of sterilization of water for municipal purposes.

OR

4. (a) Write a note on 'Noise pollution'.  
(b) Give a brief account of Nitrogen–cycle.  
(c) Write a note on organic and inorganic water pollutants.

5. Answer any three of the following:
   (1) Give a brief account of pesticide pollution.  
   (2) Write a note on effect of pollution on human life.  
   (3) Give a brief account of sewage analysis  
   (4) Write a note on ethanol or glycerol  
   (5) Write a note on radioactive pollutants.