

Seat No. : _____

FS(R)-13
April-2007
Industrial Chemistry
(Vocational)
Paper – I

Time : 3 Hours]

[Max. Marks : 70

Instruction : All questions carry equal marks.

1. (a) What is catalytic cracking ? Give flow diagram of fluidized bed catalytic cracking.
(b) Write a note on activated charcoal.
(c) Describe the chemical constitution of coal. Give uses of coke.

OR

- (a) Explain fractional distillation process of crude-oil with flow diagram.
(b) Write a note on nitro-cellulose, cellobiose and celluloid.
(c) Discuss isomerism with illustration.
2. (a) Explain calorific value of coals.
(b) Write note on Glycerine.
(c) Write note on manufacture of starch.

OR

- (a) Write a note on denatured alcohol.
(b) What is primary solid fuel ? Explain origin and formation of coal.
(c) Give classification of fuels.

3. (a) What are silicates ? Discuss the structure of silicates.
(b) Explain : (1) Roasting.
(2) Calcination
(c) Write a difference between graphite and diamond.

OR

- (a) Give brief account of clays.
(b) Name different methods for concentrating the ore. Give a brief account of any one of them.
(c) Explain : Physico-chemical principles of the extraction of metal from sulphide ore.

4. (a) Write a note on reduction of metals.
(b) Draw and explain carbon cycle.
(c) Write a note on technology of roasting.

OR

- (a) Write a note on different types of furnaces.
(b) Give a brief account of nitrogen cycle.
(c) Write a note on “Noise pollution”.

5. Answer any **three** of the following :

- (1) Give a brief account of pesticide pollution.
(2) Give a brief account of sewage analysis.
(3) Write a note on radio-active pollutants.
(4) Explain : Froth–floatation, Electro–refining.
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