

2018

CBCS

1st Semester

INDUSTRIAL CHEMISTRY

PAPER—C2T

(Vocational)

Full Marks : 60

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group—A

1. Answer any 15 questions :

15×2

(a) What is allotropy ?

(b) What is corrosion ?

(Turn Over)

- (c) Define the term Galvanization.
- (d) Write the composition of Portland cement.
- (e) What is roasting ?
- (f) Write the composition of Gun metal.
- (g) What is setting of cement ?
- (h) Explain the term calcination.
- (i) Give the composition of brass and state its uses.
- (j) What is refractory ? Write the uses.
- (k) What is sludge disposal ?
- (l) What is synthetic rubber ? Give example.
- (m) What do you mean by vulcanization of rubber ?
- (n) What are hazards in Industrial safety ?
- (o) Name two important alloys of copper and Aluminium.
- (p) Why silica is added to roasted copper ores during smelting process ?

- (q) What do you mean by "Anodizing of Alumina" ?
- (r) What are the compositions of glass ?
- (s) Write the application of ceramic materials.
- (t) What is Aerobic digestion ?

Group—B

Answer any *three* questions : 3×10

2. (a) Describe with the flow diagram the process for manufacture of metallic iron from its ore with reference to Indian content.
- (b) Define smelting. Give a clear distinction between metal sulphide smelting and metal oxide smelting.
- 5+1+4
3. (a) Write the important steps for manufacture of portland cement.
- (b) Describe different categories of solid wastes. 5+5
4. (a) Discuss the basic physico-chemical techniques involved in the extraction of Aluminium from Bauxite.

- (b) Explain the reaction with equations involved in the following processes.
- (i) Maxican process of extraction of silver
 - (ii) Cyanide process of extraction of silver.
5. (a) What is Duralumin ? Write the composition and uses of it.
- (b) Explain why ceramic materials have high melting point ?
- (c) Describe the steps to control the corrosion of ferrous materials. (2+3)+2+3
6. (a) How pure silica may be obtained from sand glass.
- (b) How impurities of curde lead is purified ?
- (c) Discuss different type of polymerization. 3+3+4
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