

RN-76
①Exam. Code: 0001
Sub. Code: 0083

1128

B.A./B.Sc.(General)-1st Semester**Industrial Chemistry**

Paper-A: Industrial Aspects of Chemistry

Time allowed: 3 Hours

Max. Marks: 75

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.

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I. Attempt the following: -

- (a) What is difference between cellulose and starch?
- (b) Define roasting.
- (c) Write the names of Ores of Aluminium.
- (d) What is meant by Catalytic Poisoning?
- (e) Define Aerosols.
- (f) Give any two examples of Heterogeneous catalysis.
- (g) What are Silicates and give any two examples?
- (h) Write the structure and molecular formula of Furfural.
- (i) What are Zeolites?
- (j) Give composition of natural gas.

(10×1½)

UNIT - I

- II. (a) Discuss in detail about fractional distillation of Petroleum. What are various fractions obtained from this?
- (b) Write a note on the properties, advantages and disadvantages of coal. (8+7)
- III. (a) Explain following chemical processes:
 - (i) Cracking
 - (ii) Hydroforming
- (b) Explain distillation of coal in detail. (8+7)

UNIT - II

- IV. (a) Discuss the industrial method of production of starch from corn.
- (b) Explain the manufacturing process of oxalic acid. Write properties and uses of oxalic acid. (8+7)
- V. (a) What do you mean by Viscose? Write the production process of Viscose.
- (b) Write a note on following metallurgical operation:
 - (i) Calcination
 - (ii) Roasting

(8+7)

P.T.O.

(2)

UNIT - III

- VI. (a) Give an account of extraction process of Sodium.
(b) What is Alumina? Explain its manufacturing process. (8+7)
- VII. (a) Name some inorganic materials of industrial importance. Also discuss their availability and structure.
(b) Give an account of extraction process of lead. (8+7)

UNIT - IV

- VIII. (a) What are Surfactants and Micelles? Discuss various effects of Surfactants.
(b) Discuss Autocatalysis and Negative Catalysis. (8+7)
- IX. (a) What do you mean by Adsorption Isotherms? Discuss various types of adsorption isotherms.
(b) Explain catalysis. What is meant by homogeneous catalysis? Discuss various types of homogeneous? (8+7)

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