Exam Code: 0006
Sub. Code: 0581

1059

B.A./B.Sc.(General)-6th Semester

**Industrial Chemistry**

Paper-B: Waste Recycling

Time allowed: 3 Hours | Max. Marks: 75

**NOTE:** *Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I-IV.*

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## UNIT – I

I. (a) How can you convert waste into useful products? Explain with examples.

(b) How can you separate solid, liquid & gaseous wastes? Explain with examples. (8+7)

II. (a) Explain physical and biological treatment of waste water in detail.

(b) How can you identify and quantify industrial, domestic & agro waste? (8+7)

## UNIT – II

III. (a) How treated water of thermal power station? Can be used for domestic use? Explain in detail.

(b) What is the reuse of cooling water? Describe in detail. (9+6)

IV. Explain the following methods for recovery of important compounds from waste:

(a) Distillation

(b) Reverse osmosis

(c) Ionexchange process (5×3)

## UNIT – III

V. (a) How can you treat waste water by biological process? Explain properly.

(b) How can you recover important compounds from the waste of fertilizer industry? Explain. (8+7)

VI. Explain briefly about: -

(a) Wet grid arrestor

(b) Electrostatic precipitation

(c) Non catalytic conversion recovery of gases (5×3)

**P.T.O.**

## UNIT-IV

VII. Explain methods of water treatment of following industries: -

(a) Iron & steel plant

(b) Slaughter house

(c) Sugar (5×3)

VIII. (a) What do you know about electroplating and its significant water treatment?

(b) Discuss economics of recycling of waste in detail with examples. (8+7)

## UNIT – V

IX. (a) What are Trickle filters?

(b) What is soil conditioning?

(c) What is coagulation & its significance?

(d) What is fermentation?

(e) How can you manage waste from different industries? (5×3)

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