

Printed Pages : 2



ECH-032

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 151752

Roll No.

--	--	--	--	--	--	--	--	--	--

B. Tech.(SEM. VII) (ODD SEM.) THEORY
EXAMINATION, 2014-15**INDUSTRIAL POLLUTION ABATEMENT &
WASTE MANAGEMENT**

Time : 3 Hours]

[Total Marks : 100

- 1 Attempt any four parts : **5×4=20**
- Characterise the gaseous emissions from chemical industries.
 - Define air pollution and discuss the national standards for ambient air.
 - Mention any 5 major polluting chemical industries and explain in detail about any one.
 - Write short notes on
 - Acid rain
 - Photo chemical smog
 - Explain the role of CPCB in the pollution control activities of India.
 - Write short notes on people participation on environmental issues and their awareness.
- 2 Attempt any two parts : **10×2=20**
- Discuss the ways that can be adopted for waste minimisation and cleaner production in industries.

151752]

1

[Contd...

- b) In a textile industry explain how you will recover energy and utilize waste released.
- c) Explain the material and energy balance for pollution minimization.
- 3** Attempt any two parts : **10×2=20**
- a) With a neat sketch explain the working principle and design of electro static precipitator.
- b) Discuss the gaseous emission control by absorption and fabric filters.
- c) Explain the following
- i) Sedimentation
 - ii) Coagulation and flocculation.
- 4** Attempt any two parts : **10×2=20**
- a) Briefly explain aerobic digestion and its biochemical kinetics.
- b) Discuss the operation of trickling filter with a neat sketch
- c) Describe the areation systems in an industry you know.
- 5** Attempt any two parts : **10×2=20**
- a) Explain the various provisions available in environmental laws with reference to hazardous wastes.
- b) Elaborate the utilization and management of non-hazardous wastes.
- c) Explain the waste management in a sugar industry.
-