

### Section-D

**Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)**

- Q.23 Analyze the role of bio chemical oxygen demand (BOD) and chemical oxygen demand (COD) as indicators of water quality. Explain how these measurements are taken and their relevance to pollution assessment.
- Q.24 Discuss the various sources of air pollutants, distinguishing between natural and manmade origins. Provide examples and explain how each source contributes to air pollution.
- Q25 Write short note on any three:-
1. Anerobic digester
  2. Effect of air pollution on human health
  3. Filtration
  4. Activated carbon

No. of Printed Pages : 4

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Roll No. ....

**5th Sem. / Chemical (Pulp & Paper)**

**Subject : Pollution Control in Pulp & Paper Industry**

Time : 3 Hrs.

M.M. : 60

### SECTION-A

**Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)**

- Q.1 What method is commonly used to collect gaseous air pollutants?
- a) Sedimentation
  - b) Absorption in liquid
  - c) Electrostatic Precipitation
  - d) Filtration
- Q.2 What health hazards are associated with solid waste pollution?
- a) Increased agricultural production
  - b) Respiratory issues
  - c) Enhanced water quality
  - d) None of the above
- Q.3 Which of the following is a method for collecting particulate pollutants?
- a) Grab sampling
  - b) High volume filtration
  - c) Adsorption on solid
  - d) Both B & C

- Q.4 Which methods is used in primary treatment of waste water?
- Activated sludge process
  - Filtration & Sedimentation
  - Aeration
  - Trickling filter
- Q.5 Which equipment is used for the removal of particulate matter?
- Absorption tower
  - Fabric filters
  - Spray tower
  - All of the above
- Q.6 What effect does air pollution have on plants?
- Enhanced growth
  - Increased photosynthesis
  - Impaired growth
  - No effect

#### Section-B

**Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)**

- Q.7 Name one type of control equipment used for particulate emissions.
- Q.8 Full form of ESP.
- Q.9 What are two common sources of water pollution?
- Q.10 What is air pollution?
- Q.11 Name one method used to treat solid waste?
- Q.12 Define adsorption?

#### Section-C

**Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)**

- Q.13 Explain about the grab sampling?
- Q.14 What does the term incineration stand for?
- Q.15 What is the difference between absorption and adsorption in air pollution control?
- Q.16 Define water pollution and identify its various sources. Discuss the types of water pollution (e.g. chemical, biological and physical)
- Q.17 Discuss in detailed fabric filters.
- Q.18 Explain the construction and working of trickling filter.
- Q.19 Discuss about venturi scrubber with neat and clean diagram.
- Q.20 Write the difference between Gaseous and Particulate Matter.
- Q.21 Describe about the desulphurization of fuel gases.
- Q.22 Classify the solid waste and also discuss about the health hazards of solid waste pollution.