

- Q.25 Discuss the role of venturi scrubber in air pollution control

Q.26 Define Smoke, fog and fly ash

Q.27 Draw the labeled diagram of ESP

Q.28 Explain the sedimentation process for collection of particulates

Q.29 Explain the working of centrifugal separator

Q.30 Discuss the method for desulphurization of fuel gases

Q.31 Write the health hazards of solid waste pollution

Q.32 Discuss importance process modification

Q.33 Write about types of sampling of water pollution

Q.34 Discuss the working of trickling filters

Q.35 Discuss any one of the following

 - Maintenance of equipment
 - Incineration

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Discuss about air sampling and its types. Explain the concept of stack sampling in detail

Q.37 With the help of neat diagram explain the working of spray towers

Q.38 Write a short note on any two of the following

 - (i) Activated sludge process
 - (ii) Desulphurization of fuel oil
 - (iii) Water treatment methods

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6th Sem./Chemical Engineering , P & P, Found & Forg., Chemical Engg P&P

Subject:- Pollution Control in Chemical Process Industry / Env. Engg & Safety

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Which of the following is the cause of industrial pollution

 - Modern technology
 - Efficient water disposal
 - Efficient govt policies
 - Unplanned industrial growth

Q.2 Which of the following devices of particulate collection is least efficient

 - Bag filters
 - Cyclone separator
 - Scrubber
 - ESP

Q.3 COD stands for

 - Carbon oxygen demand
 - Chemical oxygen deficiency
 - Chemical oxygen demand
 - Chemical on demand

- Q.4 The collection efficiency of ESP
a) Increase with increase in the electrode area
b) Increase with increase in the particle drift Velocity
c) Increase with increase in the gas flow rate
d) All of the above
- Q.5 Which of the following is not a manmade source of air pollution
a) Forest fire b) Industries
c) Automobile exhaust d) All of the above
- Q.6 Percentage of oxygen in atmospheric air is
a) 79% b) 21%
c) 0.5% d) 100%
- Q.7 Expansion of ESP is
a) Electrostatic Precipitator
b) Electric Power
c) Electron Power
d) None
- Q.8 Which of these is a water treatment method
a) Natural b) Advanced
c) Batch d) Long
- Q.9 Which of the following is the main cause of water pollution
a) Pesticides b) Fertilizers
c) Industries d) automobile exhaust

Q.10 Which of the following is the mechanical means of treating industrial effluents?

- a) Oxidation b) Chlorination
c) Recycling of wastes d) Sedimentation

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Expand BOD
Q.12 What do you understand by land filling
Q.13 Name any one method of collection of gaseous air pollutant
Q.14 Define air pollution
Q.15 Write the full form of TDS
Q.16 What do you mean by stack sampling
Q.17 Define smog
Q.18 What is desulphurization
Q.19 Write about adsorption
Q.20 Write two sources of air pollution

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Classify air pollutants on the basis of state of matter
Q.22 Discuss the effects of air pollution on human health and climate
Q.23 Write five health hazards of water pollution
Q.24 Discuss in detail any two methods of solid waste disposal