

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Discuss the method for measurement of SPM in ambient air by high volume sampler.

Q.4 Write short notes on any two of the following :-

- (a) Estimation of COD (Laboratory method)
- (b) Disposal of solid waste.
- (c) Advance waste water treatment.
- (d) Centrifugal separator.

Q.5 Discuss about the spray tower with the help of labelled diagram.

Q.6 Write short notes on the following :-

- (a) Venturi Scrubber with neat diagram.
- (b) Compositing of solid waste.

Q.7 Draw a neat diagram of electrostatic precipitator and explain its working in brief.

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

**Subject : Pollution Control In Chemical Process
Industry / Env. Engg. & Safety**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- a) Write the full form of "TDS".
 - b) Role of activated carbon in water purification.
 - c) Define "Pollution".
 - d) Write the unit in which water hardness is expressed.
 - e) Define "Smog".
 - f) Expand the term "EPM".
 - g) Write four sources of water pollution.
 - h) What do you mean by "Stack Sampling"?
 - i) Expand the term "PAN".

- j) Write any two moderate effect of SO₂ gas exposure to humans.
- k) Define pH & Write its range.
- l) Define incineration.
- m) Explain about coagulation.
- n) What is "Grab Sampling"?
- o) Define desulphurization
- p) Expand the term "TOC".
- q) What do you mean by alkalinity of waste water sample?
- r) Write full form of "ESP".

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Discuss about the adsorption.
 - ii) Classify the air pollution.
 - iii) Define high volume filtration.
 - iv) Discuss any four applications of fabric filters.

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- v) Classify the different methods for removal of suspended solids from effluent.
- vi) Discuss the utility of land filling.
- vii) Describe the method of isokinetic sampling of SPM in stack.
- viii) What do you mean by permanent hardness of water?
- ix) Write about the effect of air pollution on climate.
- x) Write any two primary treatment for water pollution.
- xi) Discuss the method of desulphurization of fuel gases in brief.
- xii) Explain in brief about the removal of suspended solids by membrane system.
- xiii) Discuss the role of venturi scrubber in air pollution control.
- xiv) What do you mean by thermal precipitation?
- xv) What are the major components of air pollution?

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