M.Sc. (Final) (Environmental Science) (CBCS Pattern) Third Semester

PAPER-XI - PSCENVT11-1 / PSCENVT11 (Core Elective)

1. Air Pollution Control

P. Pages : 1 **GUG/W/18/11263**

Time : Three Hours * 3 3 6 6 * Max. Marks : 80

Notes : 1. All questions are compulsory and carry equal marks.
2. Illustrate the answers with suitable diagrams and examples.

1. Discuss indoor air quality in urban and rural area. Enlist its effects on human health. **16**

OR

a) How natural and manmade factors influence air quality? **8**

b) Describe classification of air pollutants. **8**

2. Give classification of gaseous pollutants. Describe method for sampling and analysis of oxides of Sulphur. **16**

OR

a) Discuss site selection criteria for air sampling. How sampling period is decided? **8**

b) Describe analytical method for dust sampling and analysis. **8**

3. Enlist stack monitoring parameters. Describe methodology for measurement of SO_2 and particulate matter at the source. **16**

OR

a) Explain plume behaviour in various atmospheric conditions. **8**

b) State significance of Stack sampling. How isokinetic sampling is carried out? **8**

4. How fuel substitution and fuel cleaning contribute to gaseous air pollution control? **16**

OR

a) Describe construction and working of bag house filter. **8**

b) Discuss air pollution control cost for a coal fired thermal power plant. **8**

5. a) Write a note on fugitive emissions **4x4=16**

b) Briefly explain method for heavy metal analysis in SPM.

c) Highlight role of mathematical models in air pollutant atmospheric dispersion studies.

d) Describe design aspect of green belt development around an industry.

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