

**M. SC. (ENVIRONMENT SCIENCE AND TECHNOLOGY) SEM  
- II (CBCS) (2013 COURSE) : WINTER - 2017**

**SUBJECT :AIR AND NOISE POLLUTION MANAGEMENT**

Day : **Thursday**  
Date : **16/11/2017**

**W-2017-0989**

Time : **10.00 AM TO 01.00 PM**  
Max. Marks : 60

**N.B.**

- 1) Answer any **FIVE** questions.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw diagrams wherever necessary.

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- Q.1** a) What is air quality monitoring? State its significance and describe stack monitoring. (06)
- b) Describe local effects of air pollution with respect to thermal influence, visibility, sunshine intensity and precipitation. (06)
- Q.2** a) Explain ambient air quality standards and emission standards for industries and vehicles. (06)
- b) Write a note on engine exhaust emission with a diagram. (06)
- Q.3** a) Describe the various provisions in the law for controlling noise pollution. (06)
- b) Describe the principle, working and function of inertial separators and electrostatic precipitators in air pollution control. (06)
- Q.4** a) State Gaussian expression to determine the downwind concentration on human elevated point source. SO<sub>2</sub> is emitted at the rate of 180 gm/sec. Effective stack height is 8 cm. Speed of wind is 10m/s. Determine ground level concentration in µg/m<sup>3</sup> at 700 m and 50 m away from the centre line if horizontal and vertical standard deviation are 112 m and 73 m respectively. (06)
- b) Differentiate between NITTS and NIPTS. (06)
- Q.5** a) Write a note on handling and storage of samples. (06)
- b) Describe the characteristics of sound. (06)
- Q.6** Write short notes on any **THREE** of the following: (12)
- a) Sources of air pollution
  - b) Mixing height
  - c) Plume behaviour
  - d) Heat island effect

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