Reg. No.										

Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)

I SEMESTER M.TECH (ENVIRONMENTAL ENGINEERING)

END SEMESTER EXAMINATIONS, NOV/DEC 2015

SUBJECT: AIR AND NOISE ENVIRONMENT [CIE 525]

REVISED CREDIT SYSTEM

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- Answer **ANY FIVE FULL** the questions.
- Missing data may be suitable assumed.
- Stability table allowed(single sheet only)

1A.	List the different meteorological factors influencing air pollution and explain the different methods of identification of air	**05**
1B.	Explain with a neat sketch the different atmospheric stability regions.	**05**
2A.	Explain the following with an example: i) Aerosols. ii) Aldehydes iii)Subsidence inversion. iv)Fumes	**04**
2B.	Explain the formation of photochemical smog along with the characteristics and reactions involved in the atmosphere.	**06**
3A.	Write the gaussian dispersion equation and explain with sketches any Jour types of behaviour.	**05**
3B.	A power plant is emitting SO_2 @ 600g/s through a stack 200m high. If the plume rises to a height of 50m, calculate the ground level centerline concentration of SO_2 for this source at a distance of l km downwind with and without plume rise when the wind speed is 6m/s. The stability category is C.	**05**
4A.	Explain with neat sketches: i) Absorption in liquids ii) Tape sampler	**05**
4B.	Explain with neat sketches stack sampling of particulate matter.	**05**
5A.	Explain the different types noise with examples and explain in detail the effects of noise pollution	**05**
5B.	Explain sampling of sulphur dioxide from the ambient air and its laboratory analysis.	**05**
6A.	What are the different sources of noise pollution? Explain with examples the different methods to control it.	**05**
6B.	Explain with a neat sketch the construction and working of a Bag house filter.	**05**