

Code No: **R41013****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, March/April - 2016****ENVIRONMENTAL ENGINEERING****(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions****All Questions carry equal marks**

- 1 a) Explain the need for air pollution control methods. Mention control equipment for particulate emissions. [8]
b) Discuss primary and secondary pollutants. What are the point, line, and area sources? [7]
- 2 a) What is meant by Osmotic Pressure? Enumerate the Reverse Osmosis process. [8]
b) Mention the negative impacts of Nitrogen and Phosphorous in water bodies and also suggest methods for the removal of these substances. [7]
- 3 a) Write a detailed note on the role of effluent standards in waste water Management. [8]
b) Explain the importance of volume reduction and strength reduction in waste water Treatment [7]
- 4 a) Define Municipal Solid Waste. Mention its composition and properties of solid waste. Also the role of segregation. [8]
b) What is Hazardous waste and biomedical waste? Discuss the differences between the two types. [7]
- 5 a) Define the word Noise and Noise Pollution. Explain the impacts of noise on the humans. Also the ways to mitigate noise in residential area and Industries. [8]
b) Discuss importance of ISO14000 [7]
- 6 a) Write an essay on recirculation of Industrial waste and associated merits and demerits. [8]
b) Explain in the Environmental Sanitation practices to be followed in Hotels and Hostels. [7]
- 7 a) Explain the methodology for assessment of impacts for water, air environments [8]
b) What is mean by Environmental Audit? Explain the various stages in Environmental Audit Studies in an Industry. [7]
- 8 a) Write Notes on: i) Primary and Secondary Impacts with Examples. [8]
ii) Impact Evaluation [8]
b) Write Notes on: i) Nuclear Waste ii) Composting and Vermi-Composting [7]