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SECOND SEMESTER M.Sc. DEGREE EXAMINATION, MAY-2017

(Regular/Supplementary/Improvement)

(CUCSS - PG)

CC 15P ES2 C07 - FUNDAMENTALS OF ENVIRONMENTAL ENGINEERING

(Environmental Science)

(2015 Admission Onwards)

Time: Three Hours

Maximum: 36 Weightage

- I. Answer all questions. Each question carries 1 weightage
 - 1. Differentiate physiological and physical pollution of water.
 - 2. Define oxygen sag curve.
 - 3. Define sound pressure level.
 - 4. What is flocculation?
 - 5. Differentiate point and non-point sources of pollution.
 - 6. What are secondary pollutants?
 - 7. Define fumigating plume.
 - 8. Differentiate incineration and pyrolysis.
 - 9. What is meant by ambient air quality?
 - 10. What are grit chambers?
 - 11. Define eutrophication.
 - 12. Define solid waste management
 - 13. What is sanitary landfill?
 - 14. Define light pollution.

 $(14 \times 1 = 14 \text{ weightage})$

- II. Answer any seven questions. Each question carries 2 weightage
 - 15. What are the factors affecting the self-purification of polluted rivers.
 - 16. Explain the working of electrostatic precipitators.
 - 17. Differentiate between activated sludge process and trickling filter
 - 18. Summarize the microbiology of biogas production.
 - 19. Write a short note on secondary wastewater treatments.
 - 20. Briefly explain the impacts of radiation pollution.
 - 21. Summarize different aerobic composting techniques.
 - 22. Write a short note on UASB reactors.
 - 23. What is BOD? What are the factors on which the de-oxygenation constant (k) depends?
 - 24. Explain the methods to control vehicular air pollution

 $(7 \times 2 = 14 \text{ weightage})$

- III. Write an essay on any two of the following. Each question carries 4 weightage
 - 25. What are particulate pollutants? Explain different methods adopted to control particulate pollutants in industries
 - 26. Define noise pollution. Explain the impacts of noise pollution and its control measures.
 - 27. Define phytoremediation. Explain how constructed wetlands help in water pollution

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28. Write an essay on functional elements of solid waste management in India.
                                                              (2 \times 4 = 8 \text{ weightage})
                      Answer of questions. Each questio ****** weightige
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