QP CODE: 25047395

25047395

Reg No : .....

Name : .....

M.Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2025

Third Semester

M Sc ENVIRONMENT SCIENCE AND MANAGEMENT

Core Course - ES010301 - ENVIRONMENTAL ENGINEERING

2019 ADMISSION ONWARDS

1168CAE8

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Show the role of composting in solid waste management.
2. What do you mean by COD?
3. Summarize the role of bar racks and grit chambers in pre-treatment of municipal wastewater.
4. Illustrate unit operations of primary treatment in municipal wastewater treatment system.
5. Explain oxidation ponds.
6. Explain slow rate and over land treatment techniques.
7. What are merits of nano technology in water treatment?
8. What are Air quality standards?
9. Discuss on electrostatic precipitator.
10. What is flaring?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain briefly mass-balance approach.
12. How samples are preserved in water quality studies?
13. Explain jar test with suitable diagram.
14. Recall the role of disinfection in water treatment.
15. Explain a detailed note on the characteristics of waste water and secondary treatment techniques.

16. What is aerobic and anaerobic digestion?

17. Prove the importance sludge thickening in waste water treatment.

18. Explain on the control measures adopted for evaporative emissions and crank-case emissions.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Discuss various aspects in management of air and water resources.

20. Summarize an essay on biological treatment processes.

21. Recommend an essay on chemical treatment techniques. What are the merits and demerits of it?

22. Explain on the purpose, planning's, steps and procedures in stack monitoring.

(2×5=10 weightage)