

15P120

Name: .....

Reg. No: .....

**FIRST SEMESTER M.Sc. DEGREE EXTERNAL EXAMINATION FEB. 2016**

(2015 Admission)

**CC15P ES1 C04 – Environmental Pollution and Pollution Abatement**  
(Environmental Science)

**Time: 3 hrs**

**Max. Weightage: 36**

**I. Answer *all* questions. Each question carries 1 weightage**

1. Differentiate BOD and COD.
2. Trickling Filters.
3. Pre-concentration techniques in water sampling.
4. How fertilizers affect CEC of soil?
5. Electrostatic precipitators.
6. Acid-base indicators.
7. Differentiate spot and composite samples.
8. E.M.R.
9. High Volume Sampler.
10. Atmospheric aerosols.
11. C.E.T.P.
12. S.P.M.
13. Micro and macro pollutants in soil.
14. Windrow composting.

**(14 x 1 = 14 weightage)**

**II. Answer *any* 7 questions. Each question carries 2 weightage**

15. Define hardness of water. Explain the methods to remove the hardness of water.
16. Explain the determination method of oil and grease in water.
17. Explain water quality criteria and standards.
18. Write a note on oxidation ponds / aerated lagoons.
19. Comment on biomedical waste management in Kerala.
20. Write a short note on sources of air pollution.
21. Explain inversion and its types.
22. Explain the impacts of thermal power plants.
23. Comment on gaseous pollutants controlling techniques.
24. Write a short note on effect of noise pollution.

**(7 x 2 = 14 weightage)**

**III. Write an essay on *any* 2 of the following. Each question carries 4 weightage**

25. Describe the meteorological factors affecting the dispersion of pollutants. Write a note on its implications on human beings and animals.
26. Write an essay on the impacts of agrochemical pollutants on soil properties.

27. Illustrate with suitable examples on industrial pollution in India with respect to mining, tannery and paper industries.

28. Give an account on any two of the following:

- a) Heavy metal pollution.
- b) GHGs and Climate change.
- c) Solid waste management in India.
- d) Particulate sampling techniques.

**(2 x 4 = 8 weightage)**

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