17P326	(Pages: 2)	Name:
		Reg No

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2018

(Regular/Supplementary/Improvement)

(CUCSS - PG)

CC15P ES3 C14 - WASTE AND WASTE MANAGEMENT

(Environmental Science)

(2015 Admission onwards)

Time : Three Hours Maximum : 36 Weightage

- I. Answer *all* questions. Each question carries 1 weightage.
 - 1. What is activated sludge?
 - 2. Give two examples for hazardous waste.
 - 3. Explain pyrolysis.
 - 4. What is 3R in waste management?
 - 5. Define leachate.
 - 6. Which type of waste is related to Love canal incident?
 - 7. Define coagulation.
 - 8. Explain vermin wash.
 - 9. Define bioreactors.
 - 10. Which stage of the waste water treatment the nutrients are removed?
 - 11. The year implementation of the Hazardous waste management rules in India.
 - 12. What type of treatment is good for Nuclear waste?
 - 13. Give an example for commonly used earthworms in vermicomposting.
 - 14. Define pipe composting.

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

- II. Answer any *seven* questions. Each question carries 2 weightage.
 - 15. Explain decentralized waste management.
 - 16. Briefly explain the types of waste.
 - 17. What are the sources of liquid waste? Explain grey water.
 - 18. Explain composting? what are the factors affecting?
 - 19. Explain Trickling filter.
 - 20. Briefly explain waste management in distillery.
 - 21. Explain vermicomposting.
 - 22. Describe biomedical waste management.

- 23. What are sanitary landfills?
- 24. Explain Thermal waste management techniques.

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

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

- 25. Give a detailed account on type and characteristics of solid waste generated in Kerala. Give your suggestions for the management.
- 26. Give an account on the hazardous waste management in India.
- 27. Explain various stages of waste water treatment.
- 28. Explain the following:
 - a) Types of landfills.
 - b) Anaerobic waste water treatment.

 $(2 \times 4 = 8 \text{ Weightage})$
