Reg. No	Name	20P3014
Neg. No	Name	201 3017

# M. Sc DEGREE END SEMESTER EXAMINATION - OCT/NOV 2020: JAN 2021 SEMESTER 3 : ENVIRONMENTAL SCIENCE

COURSE: 16P3EVST09: ENVIRONMENTAL POLLUTION AND TOXICOLOGY

(For Regular - 2019 Admission and Supplementary - 2016/2017/2018 Admissions)

Time : Three Hours Max. Marks: 75

# PART A Answer any 10 (2 marks each)

- Comment on PAN?
- 2. Give the present status of a few wetlands in Kerala with special reference to soil pollution.
- 3. Comment on thermal enrichment.
- 4. Comment on the role of ITOPF.
- 5. What is radiation absorbed dose (rad)?
- 6. Mention the dose limit fixed for the workers of nuclear installations?
- 7. Comment on Industrialization.
- 8. How does air pollution affect materials and structures?
- 9. What are coliform bacteria?
- 10. List out any four waterborne diseases.
- 11. Comment on vermicomposting.
- 12. What are biodigesters?

 $(2 \times 10 = 20)$ 

#### **PART B**

## Answer any 5 (5 marks each)

- 13. What is occupational toxicology? Why is it required?
- 14. Comment on toxicity of lead, mercury and ozone.
- 15. Write a short notes on sources of soil pollution.
- 16. Explain the local, regional and global aspects of soil pollution.
- 17. Prepare a note on suspended particulate matter and outline its classification.
- 18. Discuss primary treatment.
- 19. Discuss how nutrients are removed from waste water.
- 20. Comment on E-waste management strategies.

 $(5 \times 5 = 25)$ 

#### PART C

### Answer any 2 (15 marks each)

- 21. Describe the biochemical aspects of As, Cd, Pb, Hg and Cu. Elucidate with specific case studies.
- 22. Write an essay on particulates and gaseous pollutants in the atmosphere.
- 23. Write an essay on sewage treatment.
- 24. Write an essay on collection, transport and waste processing of MSW.

 $(15 \times 2 = 30)$