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DATE:09-03-22

Registration number:

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27**

**SEMESTER EXAMINATION: OCTOBER 2021**

**(Examination conducted in March 2022)**

**B.Sc. ENVIRONMENTAL SCIENCE V-SEMESTER**

**ES 5118: Air, Water and Land Pollution**

**Time: 2½Hours Max. Marks: 70**

**This paper contains two printed pages and three parts.**

**Instruction: Draw diagrams wherever necessary.**

**PART-A**

**Answer any ten of the following. 10×2=20**

1. Define air pollution.

2. What is a photochemical reaction? Give an example.

3. What is emphysema?

4. Differentiate between leaf abscission and senescence.

5. What is stone cancer?

6. What are the ambient air quality standards for PM 2.5 and SO2?

7. Mention any two sources of thermal pollution.

8. What are oil booms?

9. What is biomagnification? Give an example.

10. Define land pollution.

11. What are the characteristics of an alkaline soil?

12. What is phyto-capping?

**PART-B**

**Write explanatory notes on any four of the following. 4×5=20**

13. Indoor air pollution

14. Air Quality Index

15. Gravity settling chamber

16. Oxidation Pond

17. Reverse Osmosis

18. Reclamation of saline soil

**PART-C**

**Answer all questions. 10×3=30**

19. With a neat sketch, explain the operation of a Pipe type ESP.

**OR**

Explain the plume behaviours based on the lapse rates and stability of the atmosphere.

20. With a neat sketch, explain the design and operation of a Trickling Filter.

**OR**

. With a flow sheet, explain the ETP of an Electroplating Industry.

21. Discuss the sources and impact of pesticides on aquatic biota.

**OR**

Discuss any five types of phytoremediation techniques of a contaminated land.