



ELECTIVE - II
Industrial Water Pollution & Control
(New) (1313)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Assume suitable data wherever necessary.
5. Solve two questions from each unit.
6. Use of non programmable calculator is permissible.

UNIT - I

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| 1. | Write a technical note on industrial waste survey. | 10 |
| 2. | How do you measure the toxicity of wastewater ? | 10 |
| 3. | Describe precipitation of heavy metals by pH control. | 10 |

UNIT - II

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|----|---|----|
| 4. | Write equation of gas transfer in to liquid. Explain it. How this equation is applied to the design of aeration devices ? | 10 |
| 5. | Describe theory of nitrification. For which industries it is important ? | 10 |
| 6. | Compare aerobic and anaerobic treatment methods for industrial waste water treatment. | 10 |

UNIT - III

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| 7. | Describe theory of adsorption. What are low cost sorbents ? | 10 |
| 8. | Describe Aerobic digestion method for sludge disposal. | 10 |
| 9. | Describe chemical oxidation and its applications ? | 10 |

UNIT - IV

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| 10. | Write are primary and secondary pollutants ? Explain by examples. | 10 |
| 11. | Write a note on effects of air pollution on mankind. | 10 |
| 12. | Describe six types of plume behaviours with neat sketches. | 10 |

UNIT - V

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| 13. | What are the effects of particulated matter on earth's atmosphere ? | 10 |
| 14. | What is heat Island effect ? | 10 |
| 15. | Write a note on atmospheric cleansing process. | 10 |
