

Lesson Plan for the Session Aug-Dec 2025-2026 (Odd Sem)

Faculty Name: **SHRUTHI H G**

Subject with code: **Environmental Engineering Laboratory -BCV504**

Semester with section: **5th Sem**

| Class taken dates | Topics proposed to be covered | % Portion covered | Remarks |
|-------------------|---|-------------------|---------|
| 22/8/2025 | Preparation chemical solutions required for analysis and sampling methodologies | 11.1 | |
| 29/8/2025 | Determination of Calcium, Magnesium and Total Hardness. | 22.2 | |
| 19/9/2025 | Determination of pH, Conductivity, TDS and Turbidity | 33.3 | |
| 19/9/2025 | Determination of Chlorides | 33.3 | |
| 26/9/2025 | Determination of percentage of % of available chlorine in bleaching powder sample, Determination of Residual Chlorine and chlorine demand | 44.4 | |
| 26/9/2025 | Determination of Solids in Sewage: i) Total Solids, ii) Suspended Solids, iii) Dissolved Solids, iv) Volatile Solids, Fixed Solids v) Settleable Solids | 44.4 | |
| 24/10/2025 | Determination of Dissolved Oxygen, BOD | 55.5 | |
| 31/10/2025 | Determination of Acidity and Alkalinity | 66.6 | |
| 7/11/2025 | Determination of optimum coagulant dosage using Jar test apparatus. | 77.7 | |
| 14/11/2025 | Determination Nitrates and Iron by spectrophotometer | 88.8 | |
| 21/11/2025 | Determination of COD(Demonstration) | 100 | |
| 21/11/2025 | Air Quality Monitoring (Demonstration) | 100 | |
| 21/11/2025 | Determination of Sound-by-Sound level meter at different locations (Demonstration) | 100 | |

List of Text Books

1. Highway Engineering- Khanna, S.K., and Justo, C.E.G.: Nem Chand and Bros. Roorkee.
2. Construction Equipment and its Management- Sharma, S.C.:Khanna Publishers.
3. Hot Mix Asphalt Materials, Mixture Design and Construction- Freddy L. Roberts, Kandhal, P.S: University of Texas Austin, Texas. NAPA Education Foundation Lanham, Maryland

List of Reference Books

1. RRL, DSIR, 'Bituminous Materials in Road Construction', HMSO Publication.
2. RRL, DSIR, 'Soil Mechanics for Road Engineers', HMSO Publication.
3. Relevant IRC codes and MoRT& H specifications

