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| **LESSONPLAN** | | | | |
| **NAMEOFFACULTY** | **Mr. Abhishek Kumar** | | | |
| **DISCIPLINE** | **Civil Engineering** | | | |
| **SEMESTER** | **4th** | | | |
| **SUBJECT** | **Water Supply and Waste water Engineering** | | | |
| **LESSON PLANDURATION** | **18 week** | | | |
| **WORK LOAD(LECTURE/PRACTICAL)** | **THEORY-2** | | **PRACTICAL-(4+4)** | |
| **WEEK** | **THEORY** | | **PRACTICAL** | |
| **LECTUREDAY** | **TOPIC** | **PRACTICALDAY** | **TOPIC** |
| 1st | 1 | Necessity and brief description of planned water supply | 1st | To determine the turbidity of water sample. |
| 2 | Sources of water- Surface/sub-surface sources |
| 2nd | 1 | Water requirement, per capita demand, factor affecting per capita demand | 2nd | To determine dissolved oxygen of given sample. |
| 2 | Rate of demand and variation in rate of demand |
| 3rd | 1 | Design period, factor governing the design period, different components of water supply | 3rd | To determine PH value of water. |
| 2 | Population forecasting methods (with numerical problems) |
| 4th | 1 | Physical, chemical and bacteriology tests and their significance | 4th | Revision of Experiments And Doubt Clearance Class. |
| 2 | Standard of potable water as per Indian standard, water meter |
| 5th | 1 | Revision of Unit-1 | 5th | Viva voice for first internal assessment. |
| 2 | Assessment of students by Assignment |
| 6th | 1 | Sedimentation, type of sedimentation | 6th | To perform jar test for coagulation. |
| 2 | Coagulation/Flocculation and their feeding |
| 7th | 1 | Filtration, types of filtration | 7th | To determine BOD of water sample. |
| 2 | Water purification by Disinfection, chlorination and their applications |
| 8th | 1 | Treatments on water- aeration, aquaguard, reverse osmosis system. | 8th | To determine residual chlorine in water. |
| 2 | Revision of Unit-2 |
| 9th | 1 | Assessment of students by assignment | 9th | To determine conductivity of water and total dissolved solids. |
| 2 | Water distribution system and layout of distribution networks |
| 10th | 1 | Methods of distribution | 10th | Revision of Experiments And Doubt Clearance Class. |
| 2 | Distribution reservoirs- types and its functions |
| 11th | 1 | Revision of Unit-3 | 11th | Viva voice for second internal assessment. |
| 2 | Assessment of students by assignment |
| 12th | 1 | Sanitation- Purpose and necessity | 12th | To study and demonstration the joining of GI pipes, PVC pipes. |
| 2 | Sewage system and its components |
| 13th | 1 | Type of sewage system | 13th | To study the installation and working of water cooler available in Institution. |
| 2 | Properties of sewerage and IS standards for analysis of sewage |
| 14th | 1 | Physical, chemical and bacteriological components of sewage | 14th | To study the working of rainwater harvesting system. |
| 2 | Sewage disposal methods |
| 15th | 1 | Purification methods of sewage | 15th | Revision of Experiments And Doubt Clearance Class. |
| 2 | Revision of Unit-4 |
| 16th | 1 | Assessment of students by assignment | 16th | Viva voice for third internal assessment. |
| 2 | Primary and Secondary treatments |
| 17th | 1 | Filtration units- screen, grit chambers, skimming tanks | 17th | Revision Class for Practical Experiments |
| 2 | Sludge treatment and disposal and oxidation ponds |
| 18th | 1 | Revision of Unit-5 | 18th | INTERNALPRACTICALVIVA |
| 2 | Assessment of students by assignment /Test |