**20CE41SC - COMPREHENSIVE DESIGN LABORATORY**

**(Civil Engineering)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Category** | Skill Oriented | **Credits** | 2 |
| **Course Type** | Practical | **Lecture – Tutorial –Practical** | 0-0-4 |
| **Prerequisite** | Strength of Materials, EDRCS, STAAD Lab | **Sessional Evaluation** | 40 |
| **Semester End Exam. Evaluation** | 60 |
| **Total Marks** | 100 |

|  |  |  |
| --- | --- | --- |
| **Course Outcomes** | CO1 | Carryout analysis and design of Bunker |
| CO2 | Analyze and design silos |
| CO3 | Carryout analysis and design of overhead water tank |
| CO4 | Analyze and design of intz tank |
| CO5 | Carryout analyze and design of transmission tower |
| CO6 | Analysis and design of telecommunication tower |
| **Course Content** | 1. Analysis and design of Bunker (Square/ Rectangular/Circular). 2. Analysis and design of silos. 3. Analysis and design of overhead water tank. 4. Analysis and design of intz tank. 5. Analysis and design of transmission tower. 6. Analysis and design of telecommunication tower. | |

**CO-PO Mapping:**3-High Mapping, 2-Moderate Mapping, 1-Low Mapping, - -Not Mapping

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** | **PSO3** |
| **CO1** | 3 | 3 | 3 | - | 3 | - | - | 3 | 2 | 1 | - | 3 | 3 | 2 | 3 |
| **CO2** | 3 | 3 | 3 | - | 3 | - | - | 3 | 2 | 1 | - | 3 | 3 | 2 | 3 |
| **CO3** | 3 | 3 | 3 | - | 3 | - | - | 3 | 2 | 1 | - | 3 | 3 | 2 | 3 |
| **CO4** | 3 | 3 | 3 | - | 3 | - | - | 3 | 2 | 1 | - | 3 | 3 | 2 | 3 |
| **CO5** | 3 | 3 | 3 | - | 3 | - | - | 3 | 2 | 1 | - | 3 | 3 | 2 | 3 |
| **CO6** | 3 | 3 | 3 | - | 3 | - | - | 3 | 2 | 1 | - | 3 | 3 | 2 | 3 |