**17CE41P2 – COMPUTER AIDED ANALYSIS AND DESIGN LABORATORY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Category** | Professional Core | **Credits** | 2 |
| **Course Type** | Laboratory | **Lecture - Tutorial - Practical** | 0 - 0 - 3 |
| **Prerequisite** | Structural Analysis, RCCSD and Building Planning and Drawing | **Sessional Evaluation** | 40 |
| **Semester End Exam Evaluation** | 60 |
| **Total Marks** | 100 |

|  |  |  |
| --- | --- | --- |
| **Course Objective** | To know the concepts and procedure to create civil engineering drawings using available drafting and graphic techniques | |
| **Course Outcomes** | CO1 | Know how to apply Engineering drawing using computers. |
| CO2 | Understand about the scope of AUTOCAD software. |
| CO3 | Use STAAD Pro for analysis of simple beam and truss problem. |
| CO4 | Use STRAP for analysis of a pin jointed frame, multi storeyed and multi bay portal frame. |
| CO5 | Execute solution of system of linear simultaneous equations of large system. |
| **Course Content** | **LIST OF EXPERIMENTS**   1. Elementary Graphics in civil engineering. 2. Elements of Auto CAD and its applications in civil engineering. 3. Solution of beam problem by STAAD Pro. 4. Solution of truss problem by STAAD Pro. 5. Analysis of simple Pin jointed frame using STRAP. 6. Analysis of multi storeyed, multi bay portal frame by STRAP. 7. Solution of system of linear simultaneous equations of large system. | |