|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course Code – CE602** | | **Design of Steel Structure** | **3L + 0T** | **3 Credits** |
| **Course Outcome (CO)** | CO1. Uses of all loadings and limit state design method for steel structure  CO 2. Explain the behavior of various connections and able to solve the problems various fasters (Bolted, welded & eccentric) used in steel construction  CO 3. Analyze and design the Tension and compression member, resources required and project economics.CO 4. Use of knowledge of analysis in structural planning and design of various components of buildings.  CO 5. Analyze and design of steel composite problems such as various girders. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CO Distribution** | **Assignment 1 (T1)** | **Slot Test 1 (T2)** | **Assignment 2 (T3)** | **Slot Test 2 (T4)** |
| **CO1** | Q1 | Q1 |  |  |
| **CO2** | Q2, Q3, Q4 | Q2,Q3 | Q1 |  |
| **CO3** | Q5,Q6 | Q6,Q4,Q5 | Q3,Q2 | Q1 |
| **CO4** |  |  | Q4 | Q3,Q2,Q4 |
| **CO5** |  |  | Q5,Q6 | Q5,Q6 |

|  |  |  |
| --- | --- | --- |
| **Course outcomes** | **% of students achieved CO** | **Decision on CO result (achieved) (Y/N) with level** |
| **CO1** | 80% | Y (Level: 3) |
| **CO2** | 70% | Y(Level: 2) |
| **CO3** | 78% | Y(Level:2) |
| **CO4** | 74% | Y(Level:2) |
| **CO5** | 80% | Y(Level: 3) |
| **Average CO attainment for the course through CIE EC502** | 75.2% | Level: 2.4 |

**Overall CO attainment (EC502) in the scale of 3**

= (40% of target level of average CO attainment through CIE) +(60% of target level of CO attainment through SEE)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CO Articulation Matrix** | | | | | | | | |
| **Subject Code** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** | **Average CO Score**  **(CIE)** | **CO Score**  **(SEE)** | **Overall CO Attainment Score** |
| **CE502** |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CO-PO Mapping**  **Design of Steel Structure**  **(Course Code – CE602)** | | | | | | | | | | | | | |
|  | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| **CO1** | 3 | - | 1 | - | 1 | 2 | 2 | 1 | - | - | 2 | 3 |
| **CO2** | 3 | 3 | 2 | 2 | 1 | - | 1 | 2 | - | - | 1 | 3 |
| **CO3** | 2 | 2 | - | 2 | - | - | 3 | 3 | - | - | - | 3 |
| **CO4** | 2 | 1 | 3 | - | 3 | 2 | - | - | 3 | 2 | 2 | 3 |
| **CO5** | 3 | - | 2 | 2 | 3 | - | 3 | - | 2 | - | 1 | 3 |
| **Average CO** | **2.6** | **2** | **2** | **2** | **2** | **2** | **2.25** | **2** | **2.5** | **2** | **1.5** | **3** |

|  |  |  |  |
| --- | --- | --- | --- |
| **CO-PSO Mapping**  **Design of RC Structure**  **(Course Code - CE502)** | | | |
|  | **PSO1** | **PSO2** | **PSO3** |
| **CO1** | 1 | 1 | 3 |
| **CO2** | 3 | 3 | 2 |
| **CO3** | 3 | 2 | 2 |
| **CO4** | 1 | 2 | 1 |
| **CO5** | 3 | 2 | 2 |
| **Average CO** | 2.2 | 2 | 2 |

Following table has been generated considering mapping of CO-PO and CO attainment.

For, PO1 mapping value is = 2.2

Target PO = 3

Overall CO1 attainment score = 0.96

**Therefore, contribution to PO3 attainment is 0.96 × (2.2/3) =0.59. Others are calculated accordingly**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PO Articulation Matrix** | | | | | | | | | | | | | |
|  | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| **CE502** | **0.96** | **0.72** | **0.8** | **0.64** | **0.88** | **0.53** | **0.72** | **0.32** | **0.32** | **0.32** | **0.32** | **0.64** |

Following table has been generated considering mapping of CO-PSO and CO attainment.

For, PSO1 mapping value is = 2.4

Target PSO = 3

Overall CO1 attainment score = 0.96

**Therefore, contribution to PO3 attainment is 0.8 × (2.4/3) =0.64. Others are calculated accordingly**

|  |  |  |  |
| --- | --- | --- | --- |
| **PSO Articulation Matrix** | | | |
|  | **PSO1** | **PSO2** | **PSO3** |
| **CE502** | **0.77** | **0.70** | **0.83** |