**Syllabus for B.Tech (Civil Engineering) Up to Third Year**

**Second Year Third Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | | **Theory** | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  | |  | |  | | **L** | **T** | **P** | **Total** | | |  |
| **1** | | HU301 | | Values & Ethics in Profession | | 3 | 0 | 0 | 3 | | | 3 |
| **2** | | CH302 | | Chemistry | | 3 | 1 | 0 | 4 | | | 4 |
| **3** | | CH301 | | Basic Environmental Engineering &Elementary Biology | | 3 | 0 | 0 | 3 | | | 3 |
| **4** | | CE301 | | Solid Mechanics | | 3 | 0 | 0 | 3 | | | 3 |
| **5** | | CE302 | | Surveying | | 3 | 1 | 0 | 4 | | | 4 |
| **6** | | CE303 | | Building Material & Construction | | 3 | 1 | 0 | 4 | | | 4 |
| **Total of Theory** | | | | | | | | | **21** | | | **21** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **7** | | CH382 | | Chemistry Lab | | 0 | 0 | 3 | | 3 | 2 | |
| **8** | | CE391 | | Solid Mechanics | | 0 | 0 | 3 | | 3 | 2 | |
| **9** | | CE392 | | Surveying Practice I | | 0 | 0 | 3 | | 3 | 2 | |
| **10** | | CE393 | | Building Design & Drawing | | 0 | 0 | 3 | | 3 | 2 | |
| **Total of Practical** | | | | | | | | | | **12** | **8** | |
| **B. SESSIONAL** | | | | | | | | | | | | |
| **11** | GS381 | | General Studies - III | | 3 | | 1 | 0 | | 4 | 4 | |
| **Total of Sessional** | | | | | | | | | | **4** | **4** | |
| **Total of Semester** | | | | | | | | | | **37** | **33** | |

**Second Year Fourth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | **Theory** | | | **Contact Hours/Week** | | | | | | | **Credit**  **Points** |
|  |  | |  | | | **L** | **T** | | **P** | | **Total** | |  |
| **1** | M(CS)401 | | Numerical Methods | | | 2 | 1 | | 0 | | 3 | | 2 |
| **2** | M402 | | Mathematics – 3 | | | 3 | 1 | | 0 | | 4 | | 4 |
| **3** | CE401 | | Fluid Mechanics | | | 3 | 0 | | 0 | | 3 | | 3 |
| **4** | CE402 | | Structural Analysis | | | 3 | 1 | | 0 | | 4 | | 4 |
| **5** | CE403 | | Soil Mechanics | | | 3 | 1 | | 0 | | 4 | | 4 |
| **Total of Theory** | | | | | | | | | | | **18** | | **17** |
| **B. PRACTICAL** | | | | | | | | | | | | | |
| **6** | **HU481** | | Technical Report Writing & Language Lab Practice | | | 0 | 0 | | 3 | 3 | | 2 | |
| **7** | M(CS)491 | | Numerical Methods | | | 0 | 0 | | 2 | 2 | | 1 | |
| **8** | CE491 | | Fluid Mechanics | | | 0 | 0 | | 3 | 3 | | 2 | |
| **9** | CE492 | | Surveying Practice –II | | | 0 | 0 | | 3 | 3 | | 2 | |
| **10** | CE493 | | Soil Mechanics Lab – I | | | 0 | 0 | | 3 | 3 | | 2 | |
| **Total of Practical** | | | | | | | | | | **14** | | **9** | |
| **C. SESSIONAL** | | | | | | | | | | | | | |
| **11** | | GS481 | | General Studies - IV | 3 | | 1 | 0 | | 4 | | 4 | |
| **Total of Sessional** | | | | | | | | | | **4** | | **4** | |
| **Total of Semester** | | | | | | | | | | **36** | | **30** | |

**Third Year – Fifth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | | **Theory** | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  | |  | |  | | **L** | **T** | **P** | | **Total** | |  |
| **1** | | **HU501** | | Economics for Engineers | | 3 | 0 | 0 | | 3 | | 3 |
| **2** | | CE501 | | Foundation Engineering | | 3 | 1 | 0 | | 4 | | 4 |
| **3** | | CE502 | | Design of RC Structures | | 3 | 1 | 0 | | 4 | | 4 |
| **4** | | CE503 | | Concrete Technology | | 3 | 0 | 0 | | 3 | | 3 |
| **5** | | CE504 | | Engineering Geology | | 3 | 0 | 0 | | 3 | | 3 |
| **6** | | CE505 | | Free Elective-I  A. Database Management System  B. Operating System  C.Microprocessors & Microcontrollers | | 3 | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | **20** | | **20** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **7** | | CE591 | | Soil Mechanics Lab – II | | 0 | 0 | 3 | | | 3 | 2 |
| **8** | | CE592 | | Concrete Laboratory | | 0 | 0 | 3 | | | 3 | 2 |
| **9** | | CE593 | | Quantity Surveying, Specifications and Valuation | | 0 | 0 | 3 | | | 3 | 2 |
| **10** | | CE594 | | Engineering Geology Laboratory | | 0 | 0 | 3 | | | 3 | 2 |
| **11.** | | CE595 | | Free Elective-I Lab  A. Database Management System Lab  B. Operating System Lab  C. Microprocessors & Microcontrollers Lab | | 0 | 0 | 3 | | | 3 | 2 |
| **Total of Practical** | | | | | | | | | | | **15** | **10** |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **12** | GS581 | | General Studies - V | | 3 | | 1 | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | **39** | **34** |

**Third Year – Sixth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | | | **Theory** | | | **Contact Hours/Week** | | | | | | | **Credit**  **Points** |
|  |  | | | |  | | | **L** | | **T** | **P** | | **Total** | |  |
| **1** | **HU601** | | | | Principles of Management | | | 2 | | 0 | 0 | | 2 | | 2 |
| **2** | CE601 | | | | Highway & Transportation Engineering | | | 3 | | 0 | 0 | | 3 | | 3 |
| **3** | CE602 | | | | Design of Steel Structure | | | 3 | | 0 | 0 | | 3 | | 3 |
| **4** | CE603 | | | | Construction Planning and Management | | | 3 | | 0 | 0 | | 3 | | 3 |
| **5** | CE604 | | | | Professional Elective – I | | | 3 | | 0 | 0 | | 3 | | 3 |
| **6** | CE605 | | | | Free Elective – II  A. Control System  B. Software Engineering  C. Operation Research | | | 3 | | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | | | | **17** | | **17** |
| **B. PRACTICAL** | | | | | | | | | | | | | | | |
| **7** | CE691 | | | Highway & Transportation Engineering Lab | | | 0 | | 0 | | 3 | | | 3 | 2 |
| **8** | CE692 | | | Detailing of RC and Steel Structures | | | 0 | | 0 | | 3 | | | 3 | 2 |
| **9** | CE693 | | | CAD Laboratory | | | 0 | | 0 | | 3 | | | 3 | 2 |
| **10** | CE681 | | | **Seminar** | | | 0 | | 0 | | 3 | | | 3 | 2 |
| **Total of Practical** | | | | | | | | | | | | | | **12** | **8** |
| **C. SESSIONAL** | | | | | | | | | | | | | | | |
| **11** | | GS681 | General Studies - VI | | | 3 | | | 1 | | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | | | | **29** | **25** |

**Fourth Year – Seventh Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | **Theory** | | | **Contact Hours/Week** | | | | | | | | **Credit**  **Points** |
|  | |  |  | | | **L** | | **T** | | | **P** | **Total** | |  |
| **1** | | CE701 | Environmental Engineering | | | 3 | | 0 | | | 0 | 3 | | 3 |
| **2** | | CE702 | Water Resource Engineering | | | 3 | | 0 | | | 0 | 3 | | 3 |
| **3** | | CE703 | Professional Elective II | | | 3 | | 0 | | | 0 | 3 | | 3 |
| **4** | | CE704 | Professional Elective III | | | 3 | | 0 | | | 0 | 3 | | 3 |
| **5** | | CE705 | Free Elective II | | | 3 | | 0 | | | 0 | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | | | **15** | | **15** |
| **B. PRACTICAL** | | | | | | | | | | | | | | |
| **6** | | HU781 | Group Discussion | | | 0 | | 0 | | | 3 | | 3 | 2 |
| **7** | | CE791 | Environmental Engineering Lab | | | 0 | | 0 | | | 3 | | 3 | 2 |
| **8** | | CE792 | Civil Engineering Practice Sessional | | | 0 | | 0 | | | 3 | | 3 | 2 |
| **9** | | CE793 | Free Elective Laboratory | | | 0 | | 0 | | | 3 | | 3 | 2 |
| **10** | | CE782 | Industrial training | | | 4 weeks during 6th -7 thSem-break | | | | | | | | 2 |
| **11** | | CE783 | Project Part I | | |  |  | |  | | | 6 | | 2 |
| **Total of Practical** | | | | | | | | | | | | | **18** | **12** |
| **C. SESSIONAL** | | | | | | | | | | | | | | |
| **12** | GS781 | | | General Studies - VII | 3 | | 1 | | | 0 | | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | | | **37** | **31** |

**Fourth Year – Eighth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | | | **Theory** | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  |  | | | |  | | **L** | **T** | **P** | | **Total** | |  |
| **1** | HU801A  HU801B | | | | Organizational Behaviour/  Project Management | | 2 | 0 | 0 | | 2 | | 2 |
| **2** | CE801 | | | | Professional Elective IV | | 3 | 0 | 0 | | 3 | | 3 |
| **3** | CE802 | | | | Professional Elective V | | 3 | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | | **8** | | **8** |
| **B. PRACTICAL** | | | | | | | | | | | | | |
| **4** | CE891 | | Structural Engineering Design Practice | | | | 0 | 0 | 6 | | | 6 | 4 |
| **5** | CE881 | | Project Part II | | | | 0 | 0 | 12 | | | 12 | 6 |
| **6** | CE882 | | Grand Viva | | | |  |  |  | | |  | 3 |
| **Total of Practical** | | | | | | | | | | | | **18** | **13** |
| **C. SESSIONAL** | | | | | | | | | | | | | |
| **7** | | GS881 | | General Studies - VIII | | 3 | | 1 | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | | **30** | **25** |