**NBKR INSTITUTE OF SCIENCE & TECHNOLOGY :: VIDYANAGAR**

*(AUTONOMOUS)*

**CIVIL ENGINEERING**

SCHEME OF INSTRUCTION AND EVALUATION

(With effect from the batch admitted in the academic year 2013-2014)

**IV YEAR OF FOUR YEAR B.TECH. DEGREE COURSE – II SEMESTER**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| S.No. | Course  Code | Course Title | Contact  Hours/  Week | | | Credits | Evaluation | | | | | | | | | |
| Sessional  Test-I | | | Sessional  Test-II | | Total Sessional Marks (Max. 40) | Semester  End Examination | | Max.  Total Marks | |
| **THEORY** | L | P | T |  | Duration  in Hours | | Max.  Marks | Duration  in Hours | Max.  Marks | 0.8(Better of two sessional tests)  +  0.2(Other) | Duration  in Hours | Max.  Marks |  | |
| 1 | 13CE4201 | Design & Drawing Of Irrigation Structures | 1 | 3 | - | 4 | 2 | | 40 | 2 | 40 | 3 | 60 | 100 | |
| 2 | 13CE4202 | Environmental Studies | 4 | - | - | 4 | 2 | | 40 | 2 | 40 | 3 | 60 | 100 | |
| 3 | 13CE42EX | Elective - III | 4 | - | - | 4 | 2 | | 40 | 2 | 40 | 3 | 60 | 100 | |
|  | | **PRACTICALS** |  |  | | | | | | | |  |  | | | |
| 1 | 13CE42P1 | CAAD Laboratory | - | 3 | - | 2 | | - | - | - | - | Day to day evaluation and a test  (100 Marks) |  | - | | 100 |
| 2 | 13CE42PR | Project Work | - | 3 | - | 6 | | - | - | - | - | Continuous Assessment and seminar  (80 Marks) |  | 120 | | 200 |
|  |  | **TOTAL** | **09** | **09** |  | **20** | | **6** | **-** | **6** | **-** | **300** | **9** | **300** | | **600** |

**Elective – III:**

13CE42E1 Remote Sensing & GIS 13CE42E2 Finite Element Analysis

13CE42E3 Advanced Highway Engineering 13CE42E4 Ground Improvement Techniques

13CE42E5 Environmental Pollution and Control

**13CE42P1 - COMPUTER AIDED ANALYSIS AND DESIGN**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course category:** | Program core | **Credits:** | 2 |
| **Course Type:** | Theory | **Lecture - Tutorial - Practical:** | 0 - 0 - 3 |
| **Prerequisite:** | **Structural Analysis, D.R.C.C.S., Building Planning and Drawing** | **Sessional Evaluation :**  **Univ.Exam Evaluation:**  **Total Marks:** | 40  60  100 |

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| **Course Outcomes** | CO1 | A student will able to know how to apply engineering drawing using computers. |
| CO2 | A student can understand about the scope of Auto CAD software. |
| CO3 | Use STAAD Pro for analysis of simple beams and truss problem. |
| CO4 | Use STRAP Pro for analysis of a pin jointed frame, multi storeyed, multi bay portal frame. |
| CO5 | Execute solution of system of linear simultaneous equations of large system. |
| **Course Content** | 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. | |