**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 – I SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No. | CourseCode | Course Title | ContactHours/Week | Credits | Evaluation |
| SessionalTest-I | SessionalTest-II | Total Sessional Marks (Max. 40) | SemesterEnd Examination | Max.Total Marks |
| **THEORY** | L | P | T |  | Durationin Hours | Max.Marks | Durationin Hours | Max.Marks | 0.8(Better of two sessional tests)+0.2(Other) | Durationin Hours | Max.Marks |  |
| 1 | 13CE4101 | Environmental Engineering – II | 4 | - | - | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 2 | 13CE4102 | Irrigation & Hydraulic Struc.. | 4 | - | - | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 3 | 13CE4103 | Quantity Surveying & Valuation  | 3 | - | 1 | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 4 | 13CE4104 | Construction Planning & Management | 3 | - | 1 | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 5 | 13SH4101 | Economics & Accountancy | 4 | - | - | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 6 | 13CE41EX | Elective – II | 4 | - | - | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
|  | **PRACTICALS** |  |  |  |  |
| 1 | 10CE41P1 | Concrete Technology Laboratory  | - | 3 | - | 2 | - | - | - | - | Day-to-day Evaluation and a test | 3 | 60 | 100 |
| 2 | 10CE41P2 | Environmental Engineering Laboratory | - | 3 | - | 2 | - | - | - | - | 3 | 60 | 100 |
|  |  | **TOTAL** | **22** | **06** | **02** | **28** | **12** | **320** | **12** | **320** | **24** | **480** | **800** |

**Elective – II:**

13CE41E1 Prestressed concrete structures

13CE41E2 Advanced structural design

13CE41E3 Solid waste management

13CE41E4 Traffic engineering

13CE41E5 Applied soil mechanics

13CE41E6 Bridge engineering

**13CE41P2 -ENVIRONMENTAL ENGINEERING LABORATORY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course category:** | Program core | **Credits:** | 2 |
| **Course Type:** | Theory | **Lecture - Tutorial - Practical:** | 0 - 0 - 3 |
| **Prerequisite:** | **Environmental Engineering – I** | **Sessional Evaluation :****Univ.Exam Evaluation:****Total Marks:** | 4060100 |

|  |  |  |
| --- | --- | --- |
| **Course Outcomes** | CO1 | Physical characteristics of water |
| CO2 | Chemical characteristics of water |
| CO3 | Amount of solids in water |
| CO4 | Biological characteristics of water |
| CO5 | Chlorine demand of water |
| **Course Content** | **LIST OF EXPERIMENTS**1. Determination of Colour2. Determination of Turbidity3. Determination of Total and dissolved solids4. Determination of Settleable solids5. Determination of pH 6. Determination of Acidity7. Determination of Alkalinity8. Determination of Hardness9. Determination of Chlorides10. Determination of Sulphates11. Determination of BOD12. Determination of Chlorine demand13. Determination of Optimum Coagulant Dose |
| **Text Books and reference Books:** | **TEXT BOOKS:**1. Environmental Laboratory Manual by Dr. Kotaiah and Dr. N. Kumara Swamy
2. Standards Methods for Analysis of water and Wastewater-APHA

**REFERENCE BOOKS:**1. Manual on Water Supply and Treatment, CPHEEO, Ministry of Urban Development, Government of India, New Delhi, 1999
2. Manual on Sewerage and Sewage Treatment, CPHEEO, Ministry of Urban Development, Government of India, New Delhi, 1993.
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