**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)

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

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| --- | --- | --- | --- | --- | --- |
| S.No. | CourseCode | Course Title | Contact Hours/Week | Cred-its | 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 | 13SH2102 | Computational Techniques, Statistics and Complex Analysis | 3 | - | 1 | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 2 | 13CE2101 | Engineering Mechanics | 3 | - | 1 | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 3 | 13CE2102 | Fluid Mechanics - I | 3 | - | 1 | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 4 | 13CE2103 | Building Technology | 4 | - | - | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 5 | 13CE2104 | Surveying – 1 | 3 | - | 1 | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
| 6 | 13CE2105 | Engineering Geology  | 4 | - | - | 4 | 2 | 40 | 2 | 40 | 3 | 60 | 100 |
|  | **PRaCTICALS** |  |  |  |  |
| 7 | 13CE21P1 | Surveying Laboratory – I | - | 3 | - | 2 | - | - | - | - | Day-to-day Evaluation and a test | 3 | 60 | 100 |
| 8 | 13CE21P2 | Engineering Geology Laboratory | - | 3 | - | 2 | - | - | - | - | 3 | 60 | 100 |
|  |  | **TOTAL** | **20** | **06** | **04** | **28** | **-** | **-** | **-** | **-** | **-** | **-** | **800** |

**13CE21P1 - SURVEYING LABORATORY – 1**

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

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| **Course Outcomes** | CO1 | Be able to measure the Horizontal distances and offsets. |
| CO2 | Be able to locate topographical features by conducting chain traversing. |
| CO3 | Be able to calculate the area of given field.  |
| CO4 | Be able to determine the directions of various objects. |
| CO5 | Be able to determine the elevations of various points & to operate various minor instruments. |
| **Course Content** | **EXERCISE – 1**A) To measure distance between two points using direct ranging.B) To set out perpendiculars at various points on given line using cross staff, optical square and tape.**EXERCISE-2**To locate topographic features using chain, cross-staff and tape.**EXERCISE -3**To determine the distance between two inaccessible points using chain/ tape and compass.**EXERCISE -4**Measurement of bearings of the sides of a closed traverse and adjustment of closing error by Bowdich method.**EXERCISE -5**To locate points using radiation and intersection method of plane table.**EXERCISE -6**To determine the distance between inaccessible points using Plane Table.**EXERCISE- 7**To determine difference in elevation between two points using fly leveling using HI and Rise and fall methods. **EXERCISE -8**To conduct profile leveling for water supply/sewage line and to draw the longitudinal section to determine the depth of cut and depth of filling for a given formation level.**EXERCISE -9**Demonstration of minor instruments – Clinometer. Ceylon ghat tracer. Hand Level; Box sextant, Planimeter and Pantagraph. |