COURSE STRUCTURE

I Year – I SEMESTER

| S. No. | Subject | T | P | Credits |
|--------|--|------|---|---------|
| 1 | English – I | 3+1* | 1 | 3 |
| 2 | Mathematics - I | 3+1* | - | 3 |
| 3 | Engineering Chemistry | 3+1* | | 3 |
| 4 | Engineering Mechanics | 3+1* | | 3 |
| 5 | Environmental Studies | 3+1* | | 3 |
| 6 | Computer Programming | 3+1* | | 3 |
| 7 | Engineering Chemistry Laboratory | | 3 | 2 |
| 8 | English – Communication Skills Lab - I | | 3 | 2 |
| 9 | C Programming Lab | | 3 | 2 |
| | Total Credits | | | 24 |

I Year – II SEMESTER

| S. No. | Subject | T | P | Credits |
|--------|---|------|---|---------|
| 1 | English - II | 3+1* | | 3 |
| 2 | Mathematics – II (Mathematical Methods) | 3+1* | | 3 |
| 3 | Mathematics – III | 3+1* | | 3 |
| 4 | Engineering Physics | 3+1* | | 3 |
| 5 | Professional Ethics and Human Values | 3+1* | | 3 |
| 6 | Engineering Drawing | 1 | 3 | 3 |
| 7 | English-Communication Skills Lab - II | | 3 | 2 |
| 8 | Engineering Physics Laboratory | - | 3 | 2 |
| 9 | Engineering Physics – Virtual Labs - Assignments | | 2 | |
| 10 | Engineering Workshop & IT Workshop | | 3 | 2 |
| | Total Credits | | | 24 |

II Year – I SEMESTER

| S. No. | Subject | T | P | Credits |
|--------|--------------------------------------|------|---|---------|
| 1 | Electrical & Electronics Engineering | 3+1* | 1 | 3 |
| 2 | Probability & Statistics | 3+1* | | 3 |
| 3 | Strength of Materials-I | 3+1* | | 3 |
| 4 | Building Materials and Construction | 3+1* | | 3 |
| 5 | Surveying | 3+1* | | 3 |
| 6 | Fluid Mechanics | 3+1* | | 3 |
| 7 | Surveying Field work-I | | 3 | 2 |
| 8 | Strength of Materials Lab | | 3 | 2 |
| | Total Credits | | | 22 |

II Year – II SEMESTER

| S. No. | Subject | T | P | Credits |
|--------|--|------|---|---------|
| 1 | Building Planning & Drawing | 3+1* | | 3 |
| 2 | Managerial Economics and Financial Analysis | 3+1* | | 3 |
| 3 | Strength of Materials- II | 3+1* | | 3 |
| 4 | Hydraulics and Hydraulic Machinery | 3+1* | | 3 |
| 5 | Concrete Technology | 3+1* | | 3 |
| 6 | Structural Analysis - I | 3+1* | | 3 |
| 7 | Fluid Mechanics and Hydraulic Machinery Lab | | 3 | 2 |
| 8 | Concrete Technology Lab | | 3 | 2 |
| 9 | Surveying Field work-II | | 3 | 2 |
| | Total Credits | | | 24 |

III Year – I SEMESTER

| S. No. | Subject | T | P | Credits |
|----------------------|---|------|---|---------|
| 1 | Engineering Geology | 3+1* | 1 | 3 |
| 2 | Structural Analysis – II | 3+1* | | 3 |
| 3 | Design and Drawing of Reinforced Concrete Structures | 3+1* | | 3 |
| 4 | Geotechnical Engineering – I | 3+1* | | 3 |
| 5 | Transportation Engineering – I | 3+1* | | 3 |
| 6 | IPR & Patents | 3+1* | | 2 |
| 7 | Geotechnical Engineering Lab | | 3 | 2 |
| 8 | Engineering Geology Lab | | 3 | 2 |
| Total Credits | | | | 21 |

III Year – II SEMESTER

| S. No. | Subject | T | P | Credits |
|--------|--|------|---|---------|
| 1 | Design and Drawing of Steel Structures | 3+1* | 1 | 3 |
| 2 | Geotechnical Engineering – II | 3+1* | 1 | 3 |
| 3 | Water Resources Engineering-I | 3+1* | | 3 |
| 4 | Environmental Engineering – I | 3+1* | 1 | 3 |
| 5 | Transportation Engineering – II | 3+1* | 1 | 3 |
| 6 | OPEN ELECTIVE | 3+1* | | 3 |
| 7 | Computer Aided Engineering Drawing | | 3 | 2 |
| 8 | Transportation Engineering Lab | | 3 | 2 |
| | Total Credits | | | 22 |

IV Year - I SEMESTER

| S. No. | Subject | T | P | Credits |
|--------|--|------|---|---------|
| 1 | Environmental Engineering – II | 3+1* | 1 | 3 |
| 2 | Prestressed Concrete | 3+1* | - | 3 |
| 3 | Construction Technology and Management | 3+1* | | 3 |
| 4 | Water Resources Engineering-II | 3+1* | | 3 |
| 5 | Remote Sensing and GIS Applications | 3+1* | | 3 |
| 6 | ELECTIVE - I | 3+1* | | 3 |
| 7 | Environmental Engineering Lab | | 3 | 2 |
| 8 | GIS & CAD Lab | | 3 | 2 |
| | Total Credits | | | 22 |

IV Year - II SEMESTER

| S. No. | Subject | T | P | Credits |
|--------|--|------|---|---------|
| 1 | Estimating, Specifications & Contracts | 3+1* | ŀ | 3 |
| 2 | ELECTIVE –II | 3+1* | | 3 |
| 3 | ELECTIVE – III | 3+1* | | 3 |
| 4 | ELECTIVE – IV | 3+1* | | 3 |
| 5 | Project Work | | | 9 |
| | Total Credits | | | 21 |

OPEN ELECTIVE:

- a) Environmental Pollution and Control
- b) Disaster Management
- c) Industrial Water & Waste Water Management
- d) Architecture and Town Planning
- e) Finite Element Method
- f) Green Technologies

Elective-I:

- a) Ground Improvement Techniques
- b) Air Pollution and Control
- c) Matrix methods of Structural Analysis
- d) Urban Hydrology
- e) Advanced Surveying
- f) Interior Designs and Decorations

Elective-II:

- a. Engineering with Geo-synthetics
- b. Environmental Impact Assessment and Management
- c. Advanced Structural Engineering
- d. Ground Water Development and Management
- e. Traffic Engineering
- f. Infrastructure Management

Elective-III:

- a) Advanced foundation Engineering
- b) Solid waste Management
- c) Earthquake Resistant Design
- d) Water Shed Management
- e) Pavement Analysis and Design
- f) Green Buildings

Elective-IV:

- a) Soil Dynamics and Machine Foundations
- b) Environmental and Industrial Hygiene
- c) Repair and Rehabilitation of Structures
- d) Water Resources System Planning and Management
- e) Urban Transportation Planning
- f) Safety Engineering
- g) Bridge Engineering