SCHEME OF INSTRUCTION & EXAMINATION B.E. V - Semester (CIVIL ENGINEERING)

| | | | | Scheme of Instruction | | | | Scheme of Examination | | | |
|------------------------------|----------------|--------------------------------|----|--------------------------|-----|-------------------|-----|--------------------------|--------------------|---------|--|
| S. No. | Course Code | Course Title | L | Т | P/D | Contact Hrs/Wk | CIE | SEE | Duration in Hrs | Credits | |
| Theor | Theory Courses | | | | | | | | | | |
| 1 | PC 501 CE | Reinforced Cement Concrete | 3 | 1 | - | 4 | 30 | 70 | 3 | 3 | |
| 2 | PC 502 CE | Theory of Structures – I | 3 | 1 | - | 4 | 30 | 70 | 3 | 3 | |
| 3 | PC 503 CE | Concrete Technology | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 4 | PC 504 CE | Hydraulic Machines | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 5 | PC 505 CE | Transportation Engg. – I | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 6 | PC 506 CE | Environmental Engineering | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 7 | PC 507 CE | Water Resource Engg. – I | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 8 | PE-I | Professional Elective – I | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| Practical/Laboratory Courses | | | | | | | | | | | |
| 9 | PC 551 CE | Fluid Mechanics Lab – II | - | - | 2 | 2 | 25 | 50 | 3 | 1 | |
| 10 | PC 552 CE | Transportation Engineering Lab | - | - | 2 | 2 | 25 | 50 | 3 | 1 | |
| 11 | PC 553 CE | Environmental Engineering Lab | - | - | 2 | 2 | 25 | 50 | 3 | 1 | |
| | | | 24 | 02 | 06 | 32 | 315 | 710 | | 27 | |

| Professional Elective – I | | | | | | | |
|---------------------------|-------------|------------------------------|--|--|--|--|--|
| S. No. | Course Code | Course Title | | | | | |
| 1 | PE 501 CE | Advanced Concrete Technology | | | | | |
| 2 | PE 502 CE | Hydropower Engineering | | | | | |
| 3 | PE 503 CE | Infrastructure Engineering | | | | | |
| 4 | PE 504 CE | Soft Computing Skills in CE | | | | | |

PC: Professional Course
L: Lecture
T: Tutorial
PE: Professional Elective
P: Practical
D: Drawing

CIE: Continuous Internal Evaluation **SEE:** Semester End Examination (Univ. Exam)

Note:

- 1. Each contact hour is a Clock Hour
- 2. The duration of the practical class is two clock hours, however it can be extended wherever necessary, to enable the student to complete the experiment.

SCHEME OF INSTRUCTION & EXAMINATION B.E. VI - Semester (CIVIL ENGINEERING)

| | | | | | Scheme of Instruction | | | | Scheme of Examination | | |
|-----------|-------------------------------|--|----|-------------------|--------------------------|-----|---------------------|---------|-----------------------|---|--|
| S. No. | Course Code | Course Title L T P/D | | Contact Hrs/Wk | CIE | SEE | Duratio n in Hrs | Credits | | | |
| Theo | Theory Courses | | | | | | | | | | |
| 1 | PC 601 CE | Steel Structures | 3 | 1 | - | 4 | 30 | 70 | 3 | 3 | |
| 2 | PC 602 CE | Structural Engineering Design & Detailing – I (Concrete) | 3 | 1 | - | 4 | 30 | 70 | 3 | 3 | |
| 3 | PC 603 CE | Theory of Structures – II | 3 | 1 | - | 4 | 30 | 70 | 3 | 3 | |
| 4 | PC 604 CE | Water Resource Engineering II | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 5 | PC 605 CE | Soil Mechanics | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 6 | PC 606 CE | Transportation Engineering – II | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 7 | PE-II | Professional Elective – II | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| 8 | OE-I | Open Elective – I | 3 | - | - | 3 | 30 | 70 | 3 | 3 | |
| Pract | Practical/ Laboratory Courses | | | | | | | | | | |
| 9 | PC 651 CE | Soil Mechanics Lab | - | - | 2 | 2 | 25 | 50 | 3 | 1 | |
| 10 | PC 652 CE | Concrete Technology Lab | - | - | 2 | 2 | 25 | 50 | 3 | 1 | |
| 11 | PW 661 CE | Survey Camp | - | - | - | _ | - | 50 | 3 | 2 | |
| | | 24 | 03 | 04 | 31 | 290 | 710 | - | 28 | | |

PC: Professional Course **PE**: Professional Elective **OE**: Open Elective **PW**: Project Work

L: Lecture T: Tutorial P: Practical D: Drawing

CIE: Continuous Internal Evaluation **SEE:** Semester End Examination (Univ. Exam)

Note -1:

- 1. Each contact hour is a Clock Hour
- **2.** The duration of the practical class is two clock hours, however it can be extended wherever necessary, to enable the student to complete the experiment

Note-2:

- * The students have to undergo a Summer Internship of four weeks duration after VI semester and credits will be awarded in VII semester after evaluation.
- ** Subject is not offered to the students of Civil Engineering Department

| Open Elective-I: | | | | | | | | |
|------------------|----------------|--|--|--|--|--|--|--|
| S.No | Course Code | Course Title | | | | | | |
| 1 | OE601CE | Disaster Management** | | | | | | |
| 2 | OE602CE | Geo Spatial Techniques** | | | | | | |
| 3 | OE601CS | Operating Systems | | | | | | |
| 4 | OE602CS | OOP using Java | | | | | | |
| 5 | OE601IT | Database Systems | | | | | | |
| 6 | OE601EC | Principles of Embedded Systems | | | | | | |
| 7 | OE602EC | Digital System Design using HDL Verilog | | | | | | |
| 8 | OE601EE | Reliability Engineering | | | | | | |
| 9 | OE602EE | Basics of Power Electronics | | | | | | |
| 10 | OE601ME | Industrial Robotics | | | | | | |
| 11 | OE602ME | Material Handling | | | | | | |
| 12 | OE632AE | Automotive Safety & Ergonomics | | | | | | |

| S.No. | Course Code | Course Title |
|-------|----------------|--|
| 1 | PE 601 CE | Earthquake Resistant Design of Buildings |
| 2 | PE 602 CE | Wastewater Treatment |
| 3 | PE 603 CE | Ground Improvement Techniques |
| 4 | PE 604 CE | Watershed Management |
| | | |
| | | |
| | | |

SCHEME OF INSTRUCTION & EXAMINATION B.E. VII - Semester (CIVIL ENGINEERING)

| | | | Scheme of Instruction | | | | So Ex | | | |
|-------------------------------|----------------|---|--------------------------|----|-----|-------------------|----------|-----|--------------------|---------|
| S. No. | Course Code | Course Title | L | Т | P/D | Contact Hrs/Wk | CIE | SEE | Duration in Hrs | Credits |
| Theor | ry Courses | | • | • | • | | | | | |
| 1 | PC 701 CE | Str. Engg. Design and Drawing – II (Steel) | 3 | 1 | - | 4 | 30 | 70 | 3 | 3 |
| 2 | PC 702 CE | Estimation Costing & Specifications | 3 | 1 | - | 4 | 30 | 70 | 3 | 3 |
| 3 | PC 703 CE | Finite Element Techniques | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| 4 | PC 704 CE | Prestressed Concrete | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| 5 | PC 705 CE | Foundation Engineering | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| 6 | | Open Elective – II | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| 7 | | Open Elective – III | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| Practical/ Laboratory Courses | | | | | | | | | | |
| 8 | PC 751 CE | Computer Application Lab | - | - | 2 | 2 | 25 | 50 | 3 | 1 |
| 9 | PW 761 CE | Project Work – I | - | - | 4 | 4 | 50 | - | - | 2 |
| 10 | SI 762 CE | Summer Internship | - | - | - | - | 50 | - | - | 2 |
| | | | 21 | 02 | 06 | 29 | 335 | 540 | | 26 |

| Open Elective – II | | | Open E | lective – III | |
|--------------------|-------------|------------------------------------|--------|---------------|---|
| S. No. | Course Code | Course Title | S. No. | Course Code | Course Title |
| 1 | OE 771 CE** | Green Building Technologies | 1 | OE 781 CE** | Road Safety Engineering |
| 2 | OE 772 CS | Data Science Using R Programming | 2 | OE 782 IT | Software Engineering |
| 3 | OE 773 EC | Fundamentals of IoT | 3 | OE 783 EC | Principles of Electronic Communications |
| 4 | OE 774 EE | Non-Conventional Energy Sources | 4 | OE 784 EE | Illumination and Electric Traction systems |
| 5 | OE 775 ME | Entrepreneurship | 5 | OE 785 ME | Mechatronics |

PC: Professional Course PE: Professional Elective

L: Lectures T: Tutorials P: Practical D: Drawing CIE: Continuous Internal Evaluation SEE: Semester End Examination (Univ. Exam)

Note: 1) Each contact hour is a Clock Hour

- 2) The practical class can be of two and half hour (clock hours) duration as per the requirement of a particular laboratory.
- **Note-2:** * The students have to undergo a Summer Internship of four weeks' duration after VI semester and credits will be awarded in VII semester after evaluation.
 - ** Subject is not offered to the students of Civil Engineering Department.

SCHEME OF INSTRUCTION& EXAMINATION B.E. VIII - SEMESTER (CIVIL ENGINEERING)

| | | | | Scheme of Instruction | | | So Ex | | | |
|-------------------------------|----------------|--------------------------------------|----|--------------------------|-----|-------------------|----------|-----|--------------------|---------|
| S. No. | Course Code | Course Title | L | Т | P/D | Contact Hrs/Wk | CIE | SEE | Duration in Hrs | Credits |
| Theor | Theory Courses | | | | | | | | | |
| 1 | PC 801 CE | Construction Management & Technology | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| 2 | | Professional Elective – III | 3 | _ | _ | 3 | 30 | 70 | 3 | 3 |
| 3 | | Professional Elective – IV | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| 4 | | Professional Elective – V | 3 | - | - | 3 | 30 | 70 | 3 | 3 |
| 5 | MC 901 EG | Gender Sensitization | 3 | - | - | 3 | 30 | 70 | 3 | - |
| Practical/ Laboratory Courses | | | | | | | | | | |
| 6 | PW 961 CE | Project Work – II | - | - | 16 | 16 | 50 | 100 | - | 8 |
| 7 | | Mandatory Course | - | - | 3 | 3 | 50 | - | 3 | - |
| | | · | 15 | - | 19 | 34 | 250 | 450 | | 20 |

| Professional Elective – III | | | | Professional Elective – IV | | | | |
|-----------------------------|-----------------|---|------------------|----------------------------|------------------------------------|--|--|--|
| S. No. | Course Code | Course Title | S. No. | Course Code | Course Title | | | |
| 1 | PE 821 CE | Retrofitting and Rehabilitation of Structures | 1 | PE 831 CE | Structural Dynamics | | | |
| 2 | PE 822 CE | Computer Aided Analysis and Design | 2 | PE 832 CE | Design with Geosynthetics | | | |
| 3 | PE 823 CE | Applied Hydrology | 3 | PE 833 CE | Groundwater Management | | | |
| 4 | PE 824 CE | Introduction to Climate Change | 4 | PE 834 CE | Intelligent Transportation Systems | | | |
| Professi | onal Elective - | - V | Mandatory Course | | | | | |
| 1 | PE 841 CE | Prefabrication Engineering | 1 | MC 951 SP | Yoga Practice | | | |
| 2 | PE 842 CE | Principles of Green Building Practices | 2 | MC 952 SP | NSS | | | |
| 3 | PE 843 CE | Advanced Reinforced Concrete Design | 3 | MC 953 SP | Sports | | | |
| 4 | PE 844 CE | Traffic Engineering & Infrastructure Design | | | | | | |

PC: Professional Course

PE: Professional Elective

L: Lectures T: Tutorials P: Practical

D: Drawing

CIE: Continuous Internal Evaluation SEE: Semester End Examination (Univ. Exam)

Note: 1) Each contact hour is a Clock Hour

2) The duration of the practical class is two clock hours, however it can be extended wherever necessary, to enable the student to complete the experiment