KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL DEPARTMENT OF CIVIL ENGINEERING Scheme of Instruction and Evaluation for Two-Year Postgraduate Programme M.TECH (STRUCTURAL & CONSTRUCTION ENGINEERING)

| Course Code | Course Name | Periods/Week | | | Scheme of Evaluation | | | | |
|----------------|---|--------------|----|---------|----------------------|-----|-------|-----|-------|
| | | | | Credits | CIE | | | ESE | Total |
| | | L | Р | | TA | MSE | Total | ESE | Marks |
| P14SC101 | Numerical and Statistical Methods | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC102 | Limit Analysis of Reinforced Concrete Structures | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC103 | Construction Planning and Management | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC104 | Structural Dynamics | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC105 | Elective – I | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC106 | Elective – II | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC107 | Advanced Concrete Technology Lab | - | 3 | 2 | 40 | - | 40 | 60 | 100 |
| P14SC108 | Computer Aided Design Laboratory | - | 3 | 2 | 40 | - | 40 | 60 | 100 |
| P14SC109 | Seminar | - | 3 | 2 | 100 | - | 100 | - | 100 |
| Total | | | 15 | 30 | 270 | 150 | 420 | 480 | 900 |

SEMESTER – I

<u>Elective – I</u>

P14SC105A. Advanced Analysis of Structures P14SC105B. Repair and Rehabilitation of Structures P14SC105C. Composite Construction Materials P14SC105D. Pavement Analysis and Design

Elective - II

P14SC106A. Advanced Concrete Technology P14SC106B. Structural Health Monitoring P14SC106C. Building services and maintenance Management P14SC106D. Machine Foundation

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SEMESTER - II

| | | Periods/ Week | | Credits | Scheme of Evaluation | | | | |
|-------------|------------------------------------|---------------|----|---------|----------------------|-----|-------|-----|-------|
| Course Code | Course Name | | | | CIE | | | ESE | Total |
| | | | Р | | TA | MSE | Total | ESE | Marks |
| P14SC201 | Theory of Elasticity | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC202 | Finite Element Method | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC203 | Design Of Concrete Bridges | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC204 | Construction Techniques& Equipment | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC205 | Elective – III | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC206 | Elective – IV | 3 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| P14SC207 | Design Project Laboratory | - | 3 | 2 | 40 | - | 40 | 60 | 100 |
| P14SC208 | Structural Engineering Laboratory | - | 3 | 2 | 40 | - | 40 | 60 | 100 |
| P14SC209 | Comprehensive Viva-Voce | - | - | 2 | - | - | - | 100 | 100 |
| | Total | 18 | 12 | 30 | 170 | 150 | 320 | 580 | 900 |

Elective – III

P14SC205A. Earthquake Resistant Design of RCC Structures P14SC205B. Management Information System P14SC205C. Legal Issues in Construction

P14SC205D. Embankment construction

Elective - IV

P14SC 206A. Quality and Safety Management

P14SC 206B. Construction contracts Management

P14SC 206C. Design of Special Structures

P14SC 206D. Theory of Plates and Shells

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SEMESTER - III

| Course Code | Course Name | Period | Credits | Scheme of Evaluation | | | | | | |
|-------------|---------------------|---------|---------|----------------------|-----|-------|-----|-------|--|--|
| | | | | | ECE | TOTAL | | | | |
| | | | | TA | MSE | TOTAL | ESE | MARKS | | |
| P14SC 301 | Industrial Training | 8 Weeks | 4 | 100 | | 100 | - | 100 | | |
| P14SC 302 | Dissertation | 16Weeks | 8 | 100 | - | 100 | - | 100 | | |
| | | Total | 12 | 200 | - | 200 | - | 200 | | |

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SEMESTER - IV

| Course Code | Course Name | Period | Credits | Scheme of Evaluation | | | | | | |
|-------------|--------------|----------|---------|----------------------|-----|-------|-------|-------|--|--|
| | | | | | CIE | ECE | TOTAL | | | |
| | | | | ТА | MSE | TOTAL | ESE | MARKS | | |
| P14SC 401 | Dissertation | 24 Weeks | 12 | 40 | - | 40 | 60 | 100 | | |
| | Total | 24 | 12 | 40 | - | 40 | 60 | 100 | | |