

Shree Rahul Education Society's  
**SHREE L.R. TIWARI COLLEGE OF ENGINEERING**

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**Programme Structure of B.E. in Civil Engineering, University of Mumbai (As per Semester Based Credit and Grading System)(REV-2012)**

| Semester | Sr. No.             | Name of the Subject                                  | Examination Scheme              |           |           |                     |            |            |            |            |           |              |                       | Credits Assigned |               |               |                 |                   |                   |                |
|----------|---------------------|--|---------------------------------|-----------|-----------|---------------------|------------|------------|------------|------------|-----------|--------------|-----------------------|------------------|---------------|---------------|-----------------|-------------------|-------------------|----------------|
|          |                     |  | Teaching Scheme (Contact Hours) |           |           | Theory Marks        |            |            |            |            |           | End Sem Exam | Exam Duration (Hours) | TW (Marks)       | PR/OR (Marks) | Total (marks) | Theory (points) | Practical (point) | Tutorial (points) | Total (points) |
|          |                     |  | TH                              | PR        | TU        | Internal Assessment |            |            |            |            |           |              |                       |                  |               |               |                 |                   |                   |                |
|          |                     |  |                                 |           |           | Test-1              | Test-2     | Avg.       |            |            |           |              |                       |                  |               |               |                 |                   |                   |                |
| I        | 1                   | Applied Mathematics-I                                | 4                               | -         | 1         | 20                  | 20         | 20         | 80         | 3          | 25        | -            | 125                   | 4                | -             | 1             | 5               |                   |                   |                |
|          | 2                   | Applied Physics-I                                    | 3                               | 1         | -         | 15                  | 15         | 15         | 60         | 2          | 25        | -            | 100                   | 3                | 0.5           | -             | 3.5             |                   |                   |                |
|          | 3                   | Applied Chemistry -I                                 | 3                               | 1         | -         | 15                  | 15         | 15         | 60         | 2          | 25        | 25           | 100                   | 3                | 0.5           | -             | 3.5             |                   |                   |                |
|          | 4                   | Engineering Mechanics                                | 5                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 5                | 1             | -             | 6               |                   |                   |                |
|          | 5                   | Basic Electrical&Electronics Engg.                   | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | -            | 125                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 6                   | Environmental studies                                | 2                               | -         | -         | 15                  | 15         | 15         | 60         | 2          | 0         | -            | 75                    | 2                | -             | -             | 2               |                   |                   |                |
|          | 7                   | Basic Workshop Practice-I                            | -                               | 4         | -         | -                   | -          | -          | -          | -          | -         | 50           | -                     | 50               | -             | 2             | -               | 2                 |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>21</b> | <b>10</b> | <b>1</b>            | <b>-</b>   | <b>-</b>   | <b>105</b> | <b>420</b> | <b>-</b>  | <b>175</b>   | <b>50</b>             | <b>750</b>       | <b>21</b>     | <b>5</b>      | <b>1</b>        | <b>27</b>         |                   |                |
| II       | 1                   | Applied Mathematics-II                               | 4                               | 0         | 1         | 20                  | 20         | 20         | 80         | 20         | 25        | -            | 125                   | 4                | -             | 1             | 5               |                   |                   |                |
|          | 2                   | Applied Physics-II                                   | 3                               | 1         | 0         | 15                  | 15         | 15         | 60         | 15         | 25        | -            | 100                   | 3                | 0.5           | -             | 3.5             |                   |                   |                |
|          | 3                   | Applied Chemistry -II                                | 3                               | 1         | 0         | 15                  | 15         | 15         | 60         | 15         | 25        | -            | 100                   | 3                | 0.5           | -             | 3.5             |                   |                   |                |
|          | 4                   | Engineering Drawing                                  | 3                               | 4         | 0         | 15                  | 15         | 15         | 60         | 15         | 25        | 50           | 150                   | 3                | 2             | -             | 5               |                   |                   |                |
|          | 5                   | Structure Programming Approach                       | 4                               | 2         | 0         | 20                  | 20         | 20         | 80         | 20         | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 6                   | Communication Skill                                  | 2                               | 2         | 0         | 10                  | 10         | 10         | 40         | 10         | 25        | 0            | 75                    | 2                | 1             | -             | 3               |                   |                   |                |
|          | 7                   | Basic Workshop Practice-II                           | 0                               | 4         | 0         | -                   | -          | -          | -          | -          | -         | 50           | 0                     | 50               | -             | 2             | -               | 2                 |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>19</b> | <b>14</b> | <b>1</b>            | <b>-</b>   | <b>-</b>   | <b>95</b>  | <b>380</b> | <b>95</b> | <b>200</b>   | <b>75</b>             | <b>750</b>       | <b>19</b>     | <b>7</b>      | <b>1</b>        | <b>27</b>         |                   |                |
| III      | 1                   | Applied Mathematics III*                             | 4                               | -         | 1         | 20                  | 20         | 20         | 80         | 3          | 25        | 0            | 125                   | 4                | -             | 1             | 5               |                   |                   |                |
|          | 2                   | Surveying – I  | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 3                   | Strength of Materials                                | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 5                   | Engineering Geology                                  | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 6                   | Fluid Mechanics – I                                  | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>17</b> | <b>8</b>  | <b>1</b>            | <b>100</b> | <b>100</b> | <b>100</b> | <b>400</b> | <b>-</b>  | <b>125</b>   | <b>100</b>            | <b>725</b>       | <b>17</b>     | <b>4</b>      | <b>1</b>        | <b>23</b>         |                   |                |
| IV       | 1                   | Applied Mathematica- IV                              | 4                               | -         | 1         | 20                  | 20         | 20         | 80         | 3          | 25        | -            | 125                   | 4                | -             | 1             | 5               |                   |                   |                |
|          | 2                   | Surveying – II                                       | 3                               | 3         | -         | 20                  | 20         | 20         | 80         | 3          | 50        | 25           | 175                   | 3                | 1.5           | -             | 4.5             |                   |                   |                |
|          | 3                   | Structural Analysis - I                              | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 4                   | Building Design and Drawing                          | 2                               | 3         | -         | 20                  | 20         | 20         | 80         | 4          | 25        | 25           | 150                   | 2                | 1.5           | -             | 3.5             |                   |                   |                |
|          | 5                   | Building Materials &Concrete Technology              | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 6                   | Fluid Mechanics – II                                 | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>20</b> | <b>12</b> | <b>1</b>            | <b>120</b> | <b>120</b> | <b>120</b> | <b>480</b> | <b>-</b>  | <b>150</b>   | <b>125</b>            | <b>900</b>       | <b>20</b>     | <b>6</b>      | <b>1</b>        | <b>27</b>         |                   |                |
| V        | 1                   | Structural Analysis – II                             | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 2                   | Geotechnical Engg. – I                               | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 3                   | Applied Hydraulics                                   | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 4                   | Environmental Engg – I                               | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 5                   | Transportation Engg. – I                             | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 6                   | Department LevelOptional Course – I                  | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 7                   | Business and Communication Ethics                    | -                               | 4         | -         | -                   | -          | -          | -          | -          | -         | 50           | -                     | 50               | -             | 2             | -               | 2                 |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>19</b> | <b>16</b> | <b>0</b>            | <b>120</b> | <b>120</b> | <b>120</b> | <b>480</b> | <b>18</b> | <b>200</b>   | <b>150</b>            | <b>950</b>       | <b>19</b>     | <b>8</b>      | <b>0</b>        | <b>27</b>         |                   |                |
| VI       | 1                   | Geotechnical Engg. – II                              | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 2                   | Design and Drawing of Steel Structures               | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 4          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 3                   | Transportation Engg. – II                            | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 0            | 125                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 4                   | Environmental Engineering. – II                      | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 5                   | Water Resource Engineering –I                        | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 6                   | Department Level Optional Course – II                | 3                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 3                | 1             | -             | 4               |                   |                   |                |
|          | 7                   | Software Applications in Civil Engineering           | 0                               | 2         | -         | -                   | -          | -          | -          | -          | -         | 25           | -                     | 25               | -             | 1             | -               | 1                 |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>19</b> | <b>14</b> | <b>0</b>            | <b>120</b> | <b>120</b> | <b>120</b> | <b>480</b> | <b>-</b>  | <b>175</b>   | <b>125</b>            | <b>900</b>       | <b>19</b>     | <b>7</b>      | <b>0</b>        | <b>26</b>         |                   |                |
| VII      | 1                   | Limit State Method for Reinforced Concrete Structure | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | -            | 125                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 2                   | Quantity Survey Estimation and Valuation             | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 4          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 3                   | Irrigation Engineering                               | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 4                   | Environmental Engineering – II                       | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 5                   | Prestressed Concrete                                 | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 6                   | Solid Waste Management                               | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 7                   | Project – Part I                                     | -                               | 4         | -         | -                   | -          | -          | -          | -          | -         | 50           | 25                    | 75               | -             | 2             | -               | 2                 |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>24</b> | <b>16</b> | <b>-</b>            | <b>80</b>  | <b>80</b>  | <b>80</b>  | <b>480</b> | <b>-</b>  | <b>200</b>   | <b>150</b>            | <b>950</b>       | <b>20</b>     | <b>7</b>      | <b>-</b>        | <b>27</b>         |                   |                |
| VIII     | 1                   | Design and Drawing of Reinforced Concrete Structures | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 2                   | Construction Engineering                             | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 3                   | Construction Management                              | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 4                   | Industrial Waste Treatment                           | 4                               | 2         | -         | 20                  | 20         | 20         | 80         | 3          | 25        | 25           | 150                   | 4                | 1             | -             | 5               |                   |                   |                |
|          | 5                   | Project – Part II                                    | -                               | 8         | -         | -                   | -          | -          | -          | -          | -         | 50           | 50                    | 100              | -             | 4             | -               | 4                 |                   |                |
|          | <b>Total --&gt;</b> |  |                                 | <b>16</b> | <b>16</b> | <b>-</b>            | <b>80</b>  | <b>80</b>  | <b>80</b>  | <b>320</b> | <b>-</b>  | <b>150</b>   | <b>150</b>            | <b>700</b>       | <b>16</b>     | <b>8</b>      | <b>-</b>        | <b>24</b>         |                   |                |