

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM**  
**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**SCHEME OF TEACHING AND EXAMINATION 2015-2016**

**B.E. CIVIL ENGINEERING**

**V SEMESTER**

| Sl. No.      | Subject Code | Title  | Teaching Hours /Week |                       | Examination |                               |               |                | Credits   |
|--------------|--------------|--|----------------------|-----------------------|-------------|-------------------------------|---------------|----------------|-----------|
|              |              |  | Theory               | Practical/<br>Drawing | Duration    | Theory/<br>Practical<br>Marks | I.A.<br>Marks | Total<br>Marks |           |
| 1            | 15CV51       | Design of RC Structural Elements             | 04                   |                       | 03          | 80                            | 20            | 100            | 4         |
| 2            | 15CV52       | Analysis of Indeterminate Structures         | 04                   |                       | 03          | 80                            | 20            | 100            | 4         |
| 3            | 15CV53       | Applied Geotechnical Engineering             | 04                   |                       | 03          | 80                            | 20            | 100            | 4         |
| 4            | 15CV54       | Computer Aided Building Planning and Drawing |                      | 2I+3P                 | 03          | 80                            | 20            | 100            | 4         |
| 5            | 15CV55X      | Professional Elective-1                      | 03                   |                       | 03          | 80                            | 20            | 100            | 3         |
| 6            | 15CV56X      | Open Elective-1                              | 03                   |                       | 03          | 80                            | 20            | 100            | 3         |
| 7            | 15CVL57      | Geotechnical Engineering Laboratory          |                      | 1I+2P                 | 03          | 80                            | 20            | 100            | 2         |
| 8            | 15CVL58      | Concrete and Highway Materials Laboratory    |                      | 1I+2P                 | 03          | 80                            | 20            | 100            | 2         |
| <b>TOTAL</b> |              |  | <b>18</b>            | <b>09</b>             | <b>24</b>   | <b>640</b>                    | <b>160</b>    | <b>800</b>     | <b>26</b> |

| <b>Professional Elective 1</b> |  | <b>Open Elective 1</b> |  |
|--------------------------------|--|------------------------|--|
| 15CV551                        | Air pollution and Control                  | 15CV561                | Traffic Engineering                    |
| 15CV552                        | Railways, Harbours, tunneling and Airports | 15CV562                | Sustainability Concepts in Engineering |
| 15CV553                        | Masonry Structures                         | 15CV563                | Remote Sensing and GIS                 |
| 15CV554                        | Theory of Elasticity                       | 15CV564                | Occupational Health and Safety         |
|                                |  | 15CV565                | NCC                                    |

- 1. Professional Elective:** Elective relevant to chosen specialization/ branch
- 2. Open Elective:** Electives from other technical and/or emerging subject areas

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM**  
**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**SCHEME OF TEACHING AND EXAMINATION 2015-2016**

**B.E. CIVIL ENGINEERING**

**VI SEMESTER**

| Sl. No.      | Subject Code | Title   | Teaching Hours /Week |                       | Examination |                               |               |                | Credits   |
|--------------|--------------|---|----------------------|-----------------------|-------------|-------------------------------|---------------|----------------|-----------|
|              |              |   | Theory               | Practical/<br>Drawing | Duration    | Theory/<br>Practical<br>Marks | I.A.<br>Marks | Total<br>Marks |           |
| 1            | 15CV61       | Construction Management & Professional Ethics | 04                   |                       | 03          | 80                            | 20            | 100            | 4         |
| 2            | 15CV62       | Design of Steel Structural Elements           | 04                   |                       | 03          | 80                            | 20            | 100            | 4         |
| 3            | 15CV63       | Highway Engineering                           | 04                   |                       | 03          | 80                            | 20            | 100            | 4         |
| 4            | 15CV64       | Water Supply and Treatment Engineering        | 04                   |                       | 03          | 80                            | 20            | 100            | 4         |
| 5            | 15CV64X      | Professional Elective 2                       | 03                   |                       | 03          | 80                            | 20            | 100            | 3         |
| 6            | 15CV65X      | Open Elective 2                               | 03                   |                       | 03          | 80                            | 20            | 100            | 3         |
| 7            | 15CVL67      | Software Application Lab                      |                      | 1I+2P                 | 03          | 80                            | 20            | 100            | 2         |
| 8            | 15CVP68      | Extensive Survey Project /Camp                |                      | 1I+2P                 | 03          | 80                            | 20            | 100            | 2         |
| <b>TOTAL</b> |              |   | <b>18</b>            | <b>9</b>              | <b>24</b>   | <b>640</b>                    | <b>160</b>    | <b>800</b>     | <b>26</b> |

| <b>Professional Elective-2</b> |                                      | <b>Open Elective-2</b> |   |
|--------------------------------|--------------------------------------|------------------------|---|
| 15CV641                        | Solid Waste Management               | 15CV651                | Communication and Professional Writing  |
| 15CV642                        | Matrix Method of Structural Analysis | 15CV652                | Environmental Protection and Management |
| 15CV643                        | Alternative Building Materials       | 15CV653                | Numerical Methods and applications      |
| 15CV644                        | Ground Improvement Techniques        | 15CV654                | Finite Element Analysis                 |

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM**  
**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**SCHEME OF TEACHING AND EXAMINATION 2015-2016**

**B.E. CIVIL ENGINEERING**

**VII SEMESTER**

| Sl. No.      | Subject Code | Title   | Teaching Hours /Week |                       | Examination |            |                               |             | Credits   |
|--------------|--------------|---|----------------------|-----------------------|-------------|------------|-------------------------------|-------------|-----------|
|              |              |   | Theory               | Practical/<br>Drawing | Duration    | I.A. Marks | Theory/<br>Practical<br>Marks | Total Marks |           |
| 1            | 15CV71       | Municipal and Industrial Waste Water Engineering                | 04                   |                       | 03          | 20         | 80                            | 100         | 4         |
| 2            | 15CV72       | Design of RCC and Steel Structures                              | 04                   |                       | 03          | 20         | 80                            | 100         | 4         |
| 3            | 15CV73       | Hydrology and Irrigation Engineering                            | 04                   |                       | 03          | 20         | 80                            | 100         | 4         |
| 4            | 15CV74X      | Professional Elective 3   | 03                   |                       | 03          | 20         | 80                            | 100         | 3         |
| 5            | 15CV75X      | Professional Elective 4   | 03                   |                       | 03          | 20         | 80                            | 100         | 3         |
| 6            | 15CVL76      | Environmental Engineering Laboratory (Air +Water+ Noise + Soil) |                      | 1I+2P                 | 03          | 20         | 80                            | 100         | 2         |
| 7            | 15CVL77      | Computer Aided Detailing of Structures                          |                      | 1I+2P                 | 03          | 20         | 80                            | 100         | 2         |
| 8            | 15CVP78      | Project Work Phase I + Seminar                                  |                      | 03                    |             | 100        |                               | 100         | 2         |
| <b>TOTAL</b> |              |   | <b>18</b>            | <b>9</b>              | <b>24</b>   | <b>160</b> | <b>640</b>                    | <b>800</b>  | <b>24</b> |

| <b>Professional Elective 3</b> |                                     | <b>Professional Elective 4</b> |   |
|--------------------------------|-------------------------------------|--------------------------------|---|
| 15CV741                        | Design of Bridges                   | 15CV751                        | Urban Transportation and Planning             |
| 15CV742                        | Ground Water & Hydraulics           | 15CV752                        | Prefabricated Structures                      |
| 15CV743                        | Design Concept of Building Services | 15CV753                        | Rehabilitation and Retrofitting of Structures |
| 15CV744                        | Structural Dynamics                 | 15CV754                        | Reinforced Soil Structures                    |

1. Project Phase-I + Seminar: Literature Survey, Problem Identification, objectives and Methodology, Submission of synopsis and seminar

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM**  
**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**SCHEME OF TEACHING AND EXAMINATION 2015-2016**

**B.E. CIVIL ENGINEERING**

**VIII SEMESTER**

| Sl. No.      | Subject Code | Title                                       | Teaching Hours /Week |                       | Examination |            |                            |             | Credits   |
|--------------|--------------|---|----------------------|-----------------------|-------------|------------|----------------------------|-------------|-----------|
|              |              |   | Theory               | Practical/<br>Drawing | Duration    | I.A. Marks | Theory/<br>Practical Marks | Total Marks |           |
| 1            | 15CV81       | Quantity Surveying and Contracts Management | 4                    | -                     | 3           | 20         | 80                         | 100         | 4         |
| 2            | 15CV82       | Design of Pre Stressed Concrete Elements    | 4                    | -                     | 3           | 20         | 80                         | 100         | 4         |
| 3            | 15CV83X      | Professional Elective 5                     | 3                    | -                     | 3           | 20         | 80                         | 100         | 3         |
| 4            | 15CV84       | Internship/Professional Practice            | Industry Oriented    |                       | 3           | 50         | 50                         | 100         | 2         |
| 5            | 15CVP85      | Project Work                                | -                    | 6                     | 3           | 100        | 100                        | 200         | 6         |
| 6            | 15CVS86      | Construction Skills and Seminar             | -                    | 4                     | -           | 100        | -                          | 100         | 1         |
| <b>TOTAL</b> |              |   | <b>11</b>            | <b>10</b>             | <b>15</b>   | <b>310</b> | <b>390</b>                 | <b>700</b>  | <b>20</b> |

| <b>Professional Elective 5</b> |                            |
|--------------------------------|----------------------------|
| 15CV831                        | Earthquake Engineering     |
| 15CV832                        | Hydraulic Structures       |
| 15CV833                        | Pavement Design            |
| 15CV834                        | Advanced Foundation Design |