**USHARAMA COLLEGE OF ENGINEERING&TECHNOLOGY**

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

**SUBJECT: DDRCS YEAR: III SEM:I**

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| --- | --- | --- | --- |
| **S.NO** | **TOPIC NAME** | **Cumulative no of classes** | **DATE** |
| 1 | **Unit –I Introduction** | 1 | 13-06-16 |
| 2 | Working Stress Method | 2 | 13-06-16 |
| 3 | Design Codes, Hand books | 3 | 15-06-16 |
| 4 | Loading standards-Dead, Live, Wind and Earthquake Load | 4 | 16-06-16 |
| 5 | Elastic Theory, Design Constants, Modular ratio | 5 | 16-06-16 |
| 6 | Neutral Axis, Depth and Moment of Resistance | 6 | 17-06-16 |
| 7 | Balanced under reinforced, over reinforced sections | 7 | 20-06-16 |
| 8 | Working stress method of design | 8 | 20-06-16 |
| 9 | Singly reinforced section | 9 | 22-06-16 |
| 10 | Doubly reinforced sections | 10 | 23-06-16 |
| 11 | Problems | 11 | 23-06-16 |
| 12 | **Limit state design** | 12 | 24-06-16 |
| 13 | Concept of limit state design | 13 | 27-06-16 |
| 14 | Basic statistical principles | 14 | 27-06-16 |
| 15 | Characteristic loads, characteristic strength | 15 | 29-06-16 |
| 16 | Partial load and safety factors | 16 | 30-06-16 |
| 17 | Representative for stress strain curves for CWDB & MS | 17 | 30-06-16 |
| 18 | Assumptions – limit state design | 18 | 01-07-16 |
| 19 | Stress block parameters, limiting moment of resistance | 19 | 04-07-16 |
| 20 | Problems | 20 | 04-07-16 |
| 21 | **Assignment-1** | 21 | 06-07-16 |
| 22 | **Unit –II Design for flexure** | 22 | 07-07-16 |
| 23 | Limit state analysis and design of singly reinforced sections | 23 | 07-07-16 |
| 24 | Effective Depth, Moment of resistance | 24 | 08-07-16 |
| 25 | Doubly reinforced sections | 25 | 11-07-16 |
| 26 | Flanged sections (T) – problems | 26 | 11-07-16 |
| 27 | Flanges sections (L)- problems | 27 | 13-07-16 |
| 28 | Minimum depth for a given capacity | 28 | 14-07-16 |
| 29 | Limiting percentage of steel | 29 | 14-07-16 |
| 30 | Minimum tension reinforcement | 30 | 15-07-16 |
| 31 | Maximum flexural steel | 31 | 18-07-16 |
| 32 | Design of flanged sections (T&L) | 32 | 18-07-16 |
| 33 | Effective width of flange – behaviour | 33 | 20-07-16 |
| 34 | Analysis and design | 34 | 21-07-16 |
| 35 | Problems | 35 | 21-07-16 |
| 36 | **Assignment-2** | 36 | 22-07-16 |
| 37 | **Unit-III Design for shear, torsion and bond** | 37 | 25-07-16 |
| 38 | Limit state analysis | 38 | 25-07-16 |
| 39 | Design of section for shear and torsion | 39 | 27-07-16 |
| 40 | Concept of bond | 40 | 28-07-16 |
| 41 | Anchorage and development length | 41 | 28-07-16 |
| 42 | IS code provisions | 42 | 29-07-16 |
| 43 | Design examples in simply supported and continuous beams | 43 | 01-08-16 |
| 44 | Detailing | 44 | 01-08-16 |
| 45 | **Limit state design of serviceability** | 45 | 03-08-16 |
| 46 | Deflection | 46 | 04-08-16 |
| 47 | Cracking and code provision | 47 | 04-08-16 |
| 48 | Design of formwork for beams and slabs | 48 | 05-08-16 |
| 49 | Problems | 49 | 05-08-16 |
| 50 | **Assignment-3** | 50 | 06-08-16 |
| 51 | **Mid Examination-1** |  | 08-08-16 to  13-08-16 |
| 52 | **Unit-4 Design of compression members** | 51 | 25-08-16 |
| 53 | Effective length of the column | 52 | 25-08-16 |
| 54 | Design of short columns | 53 | 26-08-16 |
| 55 | Design of long columns | 54 | 29-08-16 |
| 56 | Under axial loads | 55 | 29-08-16 |
| 57 | Uni axial bending and bi axial bending | 56 | 31-08-16 |
| 58 | Braced columns- problems | 57 | 01-09-16 |
| 59 | Unbraced columns | 58 | 02-09-16 |
| 60 | IS code provisions | 59 | 05-09-16 |
| 61 | Problems | 60 | 07-09-16 |
| 62 | **Assignment-4** | 61 | 08-09-16 |
| 63 | **Unit-5 Footings** | 62 | 09-09-16 |
| 64 | Different types of footings | 63 | 12-09-16 |
| 65 | Design of isolated footings | 64 | 14-09-16 |
| 66 | Design of combined footings | 65 | 15-09-16 |
| 67 | Rectangular and circular footings subjected to axial loads | 66 | 15-09-16 |
| 68 | Rectangular and circular footings subjected to uni-axial bending moments | 67 | 16-09-16 |
| 69 | Rectangular and circular footings subjected to bi-axial bending moments | 68 | 19-09-16 |
| 70 | Problems | 69 | 19-09-16 |
| 71 | **Assignment-5** | 70 | 21-09-16 |
| 72 | **Unit -6 Slabs** | 72 | 22-09-16 |
| 73 | Classification of slabs | 73 | 23-09-16 |
| 74 | Design of one way slabs | 75 | 26-09-16 |
| 75 | Design of two way slabs | 76 | 28-09-16 |
| 76 | Designs of continuous slabs using IS coefficients | 79 | 29-09-16 |
| 77 | Design of waist- slab staircase | 80 | 30-09-16 |
| 78 | Problems | 82 | 03-10-16 |
| 79 | **Assignment -6** | 83 | 05-10-16 |
| 80 | Detailing- Drawing | 85 | 06-10-16 |
| 81 | Detailing – Drawing | 86 | 07-10-16 |
| 82 | **Mid Examination-2** | 87 | 10-10-16 to  15-10-16 |

**SIGNATURE OF FACULTY HOD- CIVIL**