Lesson Plan

Name of Faculty	Er. Munish Kumar
Course	Civil ENGG.
Semester	6th (Civil Engg)
Subject	Prestressed Concrete
Lesson Plan Duration	MARCH - JULY 2021.
Work load ( ) Per Week	04 Theory

Week	Theory	Groups
1st (8Mar-13 Mar)	Basic concept of prestressed concrete, advantages of prestressed concrete in comparison	
2nd 15Mar-20 Mar	Application of prestressed to various building elements, bridges	
3rd 22Mar-27 Mar	Water tanks and precast element	
4th 29Mar-3 april	Materials - Materials requirement for prestressing concrete – High strength concrete	
5th 5Apr-9 april	Pre stressing steel wires, strands and high strength bars	
6th 12Apr-17 april	Stresses in high strength steel and stress strain relationship, tend on profile.	
7th 19Apr-24 april	Prestressing -Introduction to prestressing methods- pre-tensioning and post-tensioning	
8th 26 Apr-1 May	forces due to pretensioning and post-tensioning	
9th 26 May1 May	Bending and Shear Capacity Concept of bending shear capacity of prestressed members	
10th 3May-7 May	Bending and Shear Capacity Concept of bending shear	
11 10May-15May	shear capacity of prestressed members	
12 17May-22 May	Calculation of bending stresses in rectangular simply supported beams with straight	
13 24May-29 May	Calculation of bending stresses in rectangular simply supported beams with straight and parabolic profile of tendons	
14 31May-5 june	Losses in Prestressing Types of losses in prestress- Elastic shortening	
15. 7 june-11 june	shrinkage of concrete, frictionless	
16. 14 june—19 june	stress relaxation in prestress steel	
17. 21 june—26 june	Computation of losses for simple beam problems.	
18. 28 june—5july	Frictionless, Computation of losses for simple beam problems.	

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Lesson Plan

Name of Faculty	Sh. Parveen Kumar
Discipline	Civil Engineering
Semester	6th
Subject	Steel Structures Design
Lesson Plan Duration	March 2021 – July 2021

Load 4 Theory

Week	Topics	Theory
1st (8 March – 12 March)	1. Structural Steel and Sections	Terminology, Properties of structural steel as per IS Code, grades of steel. Designation of structural steel sections as per IS handbook and IS: 800.
2nd (15 March – 20 March)	1. Structural Steel and Sections 2. Bolted Connections	Classification of sections in Limit State Method. Hollow Sections,Hot rolled and Cold Formed, advantages and applications. Types of Bolts.
3rd (22 March – 27 March)	2. Bolted Connections	Forces in Bolts. Types of Bolted joints with Sketches. Design of bolted connections (limit state).
4th (30 March – 3 April)	3. Welded Connections (LSM)	Introduction, types of welds, defects in welds, Permissible stress in weld, strength of weld, advantages and disadvantages of welded joint.
5th (5 April – 9 April)	3. Welded Connections (LSM)	Types of welds and their symbols. Design of fillet weld and butt weld subjected to axial load.(Descriptive No numerical on plug and slot welds)
6th (12 April – 17 April)	**Class Test – 1** 3. Welded Connections (LSM)	**In Third Week of April.** Design of fillet weld and butt weld subjected to axial load.(Descriptive No numerical on plug and slot welds) ... Continued...
7th (19 April – 24 April)	4. Tension Members (LSM)	Types of section used, permissible stresses in axial tension. Gross and net cross-sectional area of tension member.
8th (26 April – 1 May)	4. Tension Members (LSM)	Analysis and Design of tension member with welded and riveted connection. Introduction to Lug Angle and Tension splice. (Theory only)
9th (3 May – 7 May)	5. Compression Members (LSM)	Types of sections used, Effective length, Radius of gyration, slenderness ratio and its limit, Permissible compressive stresses.
10th (10 May – 15 May)	**Class Test – 2** 5. Compression Members (LSM)	**In Third Week of May.** Analysis and Design of axially loaded angle struts with welded and riveted connection.
11th (17 May – 22May)	5. Compression Members (LSM)	Stanchion and Columns Types of sections-simple and built-up sections, Effective length, Introduction to lacing and battening (No numerical problem on Lacing and Battening)
12th (24 May – 29 May)	6. Beams (LSM)	Different steel sections used; Simple and built-up sections Permissible bending stresses.

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13th (31 May – 5 June)	**House Test** 6. Beams (LSM)	**In First Week of June.** Design of simple I beam section, check for shear only.
14th (7 June- 11 June)	6. Beams (LSM)	Design of simple I beam section, check for shear only... Continued...
15th (14 June- 19 June)	6. Beams (LSM)	Introduction to Plate Girder: Various components and their functions. (No numerical Problem on Plate Girder)
16th (21 June- 26 June)	7. Plate Girder (Conceptual Knowledge)	Parts of plate girder a) Flange plate b) Flange angle c) Flange splice d) Web splice e) Vertical stiffener f) Intermediate stiffener g) Horizontal stiffener h) Bearing stiffener
17th (28 June- 5 July)	7. Plate Girder (Conceptual Knowledge)	Parts of plate girder a) Flange plate b) Flange angle c) Flange splice d) Web splice e) Vertical stiffener f) Intermediate stiffener g) Horizontal stiffener h) Bearing stiffener ... Continued...

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Lesson Plan

Name of Faculty	Sh. Parveen Kumar
Discipline	Civil Engineering
Semester	6th
Subject	Steel Structures Drawing
Lesson Plan Duration	March 2021 – July 2021

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Week	Topics (Drawings)
1st (8 March – 12 March)	1. Details of splicing for steel columns.
2nd (15 March – 20 March)	1. Details of splicing for steel columns... Continued.
3rd (22 March – 27 March)	1. Details of splicing for steel columns... Continued.
4th (30 March – 3 April)	2. Column Beam Connection Drawings: a) Beam to beam connections (Seated and framed)
5th (5 April – 9 April)	2. Column Beam Connection Drawings: a) Beam to beam connections (Seated and framed)... Continued.
6th (12 April – 17 April)	**Class Test – 1** 2. Column Beam Connection Drawings: b) Beam to column (Seated and framed).
7th (19 April – 24 April)	2. Column Beam Connection Drawings: b) Beam to column (Seated and framed)... Continued.
8th (26 April – 1 May)	2. Column Beam Connection Drawings: c) Column bases (Slab base and gusseted base).
9th (3 May – 7 May)	2. Column Beam Connection Drawings: c) Column bases (Slab base and gusseted base) ... Continued.
10th (10 May – 15 May)	**Class Test – 2** 3. Detailed drawing showing plan and elevation for a riveted plate girder with the given design data regarding the sizes of its parts, with details at the supports and connections of stiffeners, flange angles and cover plates with the web.
11th (17 May – 22May)	3. Detailed drawing showing plan and elevation for a riveted plate girder with the given design data regarding the sizes of its parts, with details at the supports and connections of stiffeners, flange angles and cover plates with the web... Continued.
12th (24 May – 29 May)	3. Detailed drawing showing plan and elevation for a riveted plate girder with the given design data regarding the sizes of its parts, with details at the supports and connections of stiffeners, flange angles and cover plates with the web... Continued.
13th (31 May – 5 June)	**House Test** 3. Detailed drawing showing plan and elevation for a riveted plate girder with the given design data regarding the sizes of its parts, with details at the supports and connections of stiffeners, flange angles and cover plates with the web... Continued.
14th (7 June- 11 June)	4. Preparation of drawing of a steel roof truss with details of joints for the given span, shape of the truss and the design data regarding the size of the members and the connections.
15th	4. Preparation of drawing of a steel roof truss with details of joints for the given span,

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(14 June- 19 June)	shape of the truss and the design data regarding the size of the members and the connections... Continued.
16th (21 June- 26 June)	4. Preparation of drawing of a steel roof truss with details of joints for the given span, shape of the truss and the design data regarding the size of the members and the connections... Continued.
17th (28 June- 5 July)	4. Preparation of drawing of a steel roof truss with details of joints for the given span, shape of the truss and the design data regarding the size of the members and the connections... Continued.

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Lesson Plan

Name of Faculty	Sh. Shashank Sharma
Discipline	Civil Engineering
Semester	6th
Subject	Irrigation Engineering
Lesson Plan Duration	March 2021 – July 2021

LOAD 04 Theory

Week	Topics	Theory
1st (8 March – 12 March)	1. Introduction 2. Water Requirement of Crops	1.1 Definition and Necessity of Irrigation. 1.2 Historical development of Irrigation systems. 2.1 Principal crops in India and their water requirements.
2nd (15 March – 20 March)	2. Water Requirement of Crops	2.2 Crop/base period. 2.3 Crop seasons –Kharif and Rabi. 2.4 Duty, Factors affecting duty, Delta. 2.5 Relationship between Base period, Duty and Delta.
3rd (22 March – 27 March)	3. Methods of Irrigation	3.1 Type of irrigation- Surface irrigation and sub-surface irrigation. 3.2 Methods of supplying water to the field (Brief description) 3.2.1 Free Flooding 3.2.2 Border Flooding 3.2.3 Check Flooding 3.2.4 Furrow irrigation method
4th (30 March – 3 April)	3. Methods of Irrigation 4. Hydrology and Run-off	3.2 Methods of supplying water to the field (Brief description) 3.2.5 Basin flooding 3.2.5 Sprinkler irrigation with its suitability 3.2.6 Drip Irrigation with its suitability 4.1 Definition, importance of hydrology 4.2 Hydrological cycle 4.3 Precipitation 4.3.1 Definition 4.3.2 Types of precipitation 4.3.3 Rain gauges, types with diagrams
5th (5 April – 9 April)	4. Hydrology and Run-off 5. Dams & Canals	4.4 Runoff, Factors affecting runoff 5.1 Use of dams in irrigation 5.2 Types of dams

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6th (12 April – 17 April)	**Class Test – 1** 5. Dams & Canals	**In Third Week of April.** 5.3 Construction of earthen, gravity and rock fill dams 5.4 Alluvial and non-alluvial canals
7th (19 April – 24 April)	5. Dams & Canals	5.5 Alignment of canal- ridge canal, contourcanal, side slope canal 5.6 Distribution system for canal irrigation- Main canal, Branch canal, Distributaries, water course 5.7. Cross-section of canal showing- Side slope, Berm, Freeboard, Service road, Spoil bank, Dowel and Borrowpit (with their definition & functions)
8th (26 April – 1 May)	5. Dams & Canals 6. Well and Tube Well Irrigation	5.8 Lining of canals and their types 5.9 Maintenance of irrigation canal 5.10 Closure of breaches 6.1 Open well 6.1.1 Shallow well 6.1.2 Deep well
9th (3 May – 7 May)	6. Well and Tube Well Irrigation	6.2 Construction of open well 6.3 Yield of open well (brief description, no derivation and numerical) 6.3.1 Pumping test 6.3.2 Recuperating test 6.4 Tube well
10th (10 May – 15 May)	**Class Test – 2** 6. Well and Tube Well Irrigation	**In Third Week of May.** 6.5 Types of tube well (Brief description with neat diagram) 6.5.1 Cavitytype tube well 6.5.2 Screen type tube well 6.5.3 Slotted type tube well 6.6 Methods of boring tube wells 6.7 Well development 6.8 Advantages and disadvantages of tube well irrigation over canal irrigation
11th (17 May – 22May)	7. Diversion Head Works	7.1 Definition, object, general layout, functions of different parts of diversion head works. 7.2 Types of Weir 7.3 Difference between weir and barrage
12th (24 May – 29 May)	8. Cross Drainage Works	8.1 Functions and necessity of the following types: aqueduct, super Passage, level crossing, inlet and outlet 8.2 Sketches of the above cross drainage works
13th (31 May – 5 June)	**House Test** 9. Regulatory works	**In First Week of June.** 9.1 Introduction 9.2 Cross and head regulators

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14th (7 June- 11 June)	9. Regulatory works	9.3 Outlets 9.4 Canal Escapes 9.5 Falls
15th (14 June- 19 June)	10. River Training Works	10.1 Control and river training 10.2 Objective of river training 10.3 Method of river training (Brief description)
16th (21 June- 26 June)	10. River Training Works	10.3.1 Marginal embankment 10.3.2 Groynes 10.3.3 Pitched island 10.3.4 Guide banks
17th (28 June- 5 July)	11. Water Logging	11.1 Definition 11.2 Causes 11.3 Preventive & remedial measures 11.4 Reclamation of water-logged areas 11.5 Well point system

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Lesson Plan

Name of Faculty	Er. Amish Rehalia
Course	Civil Engg.
Semester	6th (Civil Engg)
Subject	CONSTRUCTION MANAGEMENT AND ACCOUNTS
Lesson Plan Duration	MARCH- JULY 2021
Work load ( ) Per Week	04 Theory

Week	Theory	Groups
1st (8Mar-13 Mar)	CONSTRUCTION MANAGEMENT Significance of construction management Main objectives of construction management and overview of the subject Functions of construction management, planning, organizing, staffing, directing, controlling and coordinating, meaning of each of these with respect to construction job. Classification of construction into light, heavy and industrial construction Stages in construction from conception to completion	
2nd 15Mar-20 Mar	Construction Planning Importance of construction planning Stages of construction planning - Pre-tender stage - Contract stage, construction contracts and specifications Scheduling construction works by bar charts - Definition of activity, identification of activities though - Limitations of bar charts	
3rd 22Mar-27 Mar	Scheduling by network techniques - Introduction to net work techniques; PERT and CPM, differences between PERT and CPM terminology	
4th 29Mar-3 april	CPM Network including critical activities, slack, floats & critical path. Types of organizations: Line, line and staff, functional and their characteristics	
5th 5Apr-9 april	Types of organizations: Line, line and staff, functional and their characteristics	
6th 12Apr-17 april	Site Organization Principle of storing and stacking materials at site Location of equipment	
7th 19Apr-24 april	Site Organization Principle of storing and stacking materials at site Location of equipment Organizing labour at site Site layout of construction project	
8th 26 Apr-1 May	Site Organization Site layout of construction project	
9th 26 May1 May	Construction Labour Conditions of construction workers in India, wages paid to workers	
10th 3May-7 May	Important provisions of the following Acts: - Labour Welfare Fund Act 1936 (as amended) - Payment of Wages Act 1936 (as amended) - Minimum Wages Act 1948 (as amended)	

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11 10May-15May	Site Organization Important provisions of the following Acts: - Labour Welfare Fund Act 1936 (as amended)
12 17May-22 May	Important provisions of the following Acts: - Labour Welfare Fund Act 1936 (as amended) - Payment of Wages Act 1936 (as amended) - Minimum Wages Act 1948 (as amended)
13 24May-29 May	Control of Progress Methods of recording progress Analysis of progress
14 31May-5 june	Taking corrective actions keeping head office informed
15. 7 june-11 june	Arbitration and settlement Inspection and Quality Control Need for inspection and quality control
16.14 june—19 june	Arbitration and settlement Inspection and Quality Control Need for inspection and quality control Principles of inspection Stages of inspection and quality control for - Earthwork - Masonry – RCC
17. 21 june—26 june	Accidents and Safety in Construction Accidents–causes and remedies
18. 28 june—5july	Accidents and Safety in Construction Accidents–causes and remedies Safety measures for - Excavation work - Hot bituminous works - Scaffolding, form work Safety campaign and safety devices

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Lesson Plan

Name of Faculty	Er. Munish Kumar
Course	CIVIL ENGG.
Semester	6th (Civil Engg)
Subject	RAILWAYS, BRIDGES AND TUNNELS / Elective
Lesson Plan Duration	MARCH – JULY 2021
Work load ( ) Per Week	04 Theory

Week	Theory	Groups	
1st (8Mar-13 Mar)	Introduction to Indian Railways . Railways surveys: Factors influencing the railways route, brief description of various types of railway survey . Classification of permanent way describing its component part		
2nd 15Mar-20 Mar	Rail Gauge; Definition, types, practice in India . Rail – types of rails . Rail Fastening: Rail joints, types of rail joints, fastening for rails, fish plates, bearing plates		
3rd 22Mar-27 Mar	Sleepers: Functions of sleepers, types of sleepers,		
4th 29Mar-3 april	requirements of an ideal material of Sleepers		
5th 5Apr-9 april	Ballast: Function of ballast, requirements of an ideal material of ballast		
6th 12Apr-17 april	Crossing and signaling: Brief description regarding different types of crossing/signalling		
7th 19Apr-24 april	Maintenance of track: Necessity, track fixtures; maintenance and boxing of ballast, maintenance gauges, tools. Drains, methods of construction		
8th 26 Apr-1 May	Maintenance of track: Necessity, track fixtures; maintenance and boxing of ballast, maintenance gauges, tools. Drains, methods of construction		
9th 26 May1 May	Introduction Bridge–its function and component parts, difference between a bridge and a culvert . Classification of Bridges Their structural elements and suitability: According to life-permanent and temporary		
10th 3May-7 May	According to deck level–Deck, through and semi-through According to material–timber, masonry, steel, RCC, pre-stressed IRC classification		
11 10May-15May	Bridge Foundations: Introduction to open foundation pile foundation, well foundation Piers, Abutments and Wing walls		
12 17May-22 May	Piers–definition, parts; types–solid (masonry and RCC), open Abutment sand wing walls–definition, types of abutment (straight and tee), abutment with wing walls (straight, splayed return and curved)		
13 24May-29 May	Bridge bearings Purpose of bearing; types of bearing–fixed plate, rocker and roller, . Maintenance of Bridges Inspection of bridges Routine maintenance		
14 31May-5 june	Definition and necessity of tunnels Typical section of tunnels for a national highway and single and double broad gauge railway track.		
15. 7 june-11 june	Ventilation-necessity and methods of ventilation, by blowing, exhaust and combination of blowing and exhaust		
16.14 june—19 june	exhaust and combination of blowing and exhaust		
17.21 june—26 june	Drainage method of draining water in tunnels		
18. 28 june—5july	Lighting in tunnels & lining of tunnels		

Sign of Teacher (Munish Kumar)

(Ankit Rohilla) (HOD)

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LESSON PLAN

Name of Faculty	SH VIRENDER SINGH
Department	CIVIL ENGG.
Semester	6 TH Sixth Semester
Subject	PRACTICES IN COMMUNICATION SKILLS
Lesson Plan for the Duration	March TO JULY 2021

Week	PRACTICAL $G_1 + G_2 = 2+2$	
Ist 8 march To 12 march	1 Exercises on phonetics	Exercises on phonetics Identifications of English phonemes Stress and Intonation Speaking exercises with emphasis on voice modulation (reading and extempore)
2nd 15 march To 27 march	2 Group Discussion	Group Discussion
3 rd 27 march To 3rd April	3 Exercises on	Exercises on - Self-assessment using tools like SWOT analysis - Listening skills
4 Th 5 April To 17 April	4. Internet communication and Correspondence	1 Resume writing 4.2 Covering letter
5 Th 19 April To 7 May	4. Internet communication and Correspondence	Agenda and Minutes of meeting
6 Th 10 May To 22 May	4. Internet communication and Correspondence	Business Correspondence
7 Th 24 May To 5 June	5. Exercises on	Exercises on Body language and Dress sense
8 Th 7 June To 19 June	Exercises on	Etiquettes and mannerism in difficult situations like business meetings, table manners, Telephone etiquette
9 Th 21 June To 26 June	Exercises on	Manners related to opposite gender Cross-cultural Communication
10 Th 28 June To 5 July	6 Mock interviews	Mock interviews (telephonic/personal)
11 Th 28 June To 5 July	7 Role plays for effective Communication	Role plays for effective Communication

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04/03/2021
(Virender Singh)