

Dicipline:	Civil Engg.	Semester:	5th	Name of the Teaching Faculty:	Pratiksha Bhujon
Subject:	Structural Design - II	No of Days/Week Class Allotted:	4	Semester From date:	15.09.22 To date _____
					No. of Weeks:

WEEK	Class Day	Theory Topics
1st 15.09.22 to 18.09.22	1st	Introduction about steel structure.
	2nd	Common steel structures, with advantages and disadvantages.
	3rd	Types of steel, Properties of structural steel.
	4th	Rolled steel section, special consideration on steel design.
	5th	
2nd 19.09.22 to 24.09.22	1st	Structural analysis and design philosophy
	2nd	Brief review of principles of limit state design.
	3rd	Structural steel fasteners - Bolted connection
	4th	Classification of bolts, advantages & disadvantages of bolted connection.
	5th	
3rd 25.09.22 to 30.09.22	1st	Problems on bolted connection
	2nd	Problems
	3rd	Different terminology, spacing, edge detail of bolt holes.
	4th	Types of bolted connection & problems
	5th	

Theory Topics

WEEK	Class Day	Theory Topics
4th 10.10.22 to 15.10.22	1st	Types of action of fasteners, assumptions, principles of design
	2nd	Problems
	3rd	Strength of plate in a joint, strength of plates in a joint, strength of bearing type joint
	4th	Problem Practice
	5th	
5th 17.10.22 to 22.10.22	1st	Reduction factors, and shear capacity of HSFH bolts.
	2nd	Analysis & design of joint using bearing type both with problems
	3rd	Efficiency of joint with problems
	4th	Welded connection, advantages & disadvantages of welded connection
	5th	
6th 24.10.22 to 29.10.22	1st	Types of welded joint and specification for welding,
	2nd	Design stresses in welded strength of web joint with problems
	3rd	Design of steel tension member - common shapes of tension member
	4th	Maximum value effective slenderness ratio
	5th	Problems on tension member

ARYAN SCHOOL OF ENGINEERING & TECHNOLOGY

Line:	Civil Engg.	Semester: 5th	Name of the Teaching Faculty: Pratishya P. Singh	
Subject:	No of Days/Week Class Allotted: _____		Semester From date: _____ To date _____	No. of Weeks: _____

WEEK	Class Day	Theory Topics
7th 31.10.22 to 5.11.22	1st	Analysis and Design of tension members
	2nd	Problems practice on tension members
	3rd	Problems
	4th	Design of compression members - Introduction
	5th	
8th 7.11.22 to 12.11.22	1st	Common shape of compression members
	2nd	Buckling class of cross section -
	3rd	Slenderness ratio with problems
	4th	Design Compressive stress
	5th	- Do -
9th 4.11.22 to 9.11.22	1st	Design Strength of compression members with problems
	2nd	members. Problem Practice on compression
	3rd	Problems
	4th	Doubt clearing class
	5th	

Theory Topics

WEEK	Class Day	Theory Topics
10th 21.11.22 to 26.11.22	1st	Analysis and design of compression members.
	2nd	Problems.
	3rd	Design of steel beams - Introduction
	4th	Common cross-section and their classification
	5th	
11th 28.11.22 to 3.12.22	1st	Deflection limits with problems
	2nd	Web buckling and web crippling
	3rd	Problem practice on compression members
	4th	Problem Practice
	5th	
12th 5.12.22 to 10.12.22	1st	Design of laterally supported beams against bending and shear
	2nd	Problems
	3rd	Problem Practice
	4th	class Test