ARYAN SCHOOL OF ENGINEERING & TECHNOLOGY

Dicipline: Civil	Semester: 5th	Name of the Teaching Faculty: Mousumi Puhan.	
Subject: Structural Design – II	No of Days/Week Class Allotted: 04	Semester From date: _____ To date _____	No.of Weeks 06

WEEK	Class Day	Theory Topics
1st	1st	Introduction to SD-II Discuss about some steel structure
	2nd	Common steel structures, Adv. and disadv. of steel structures.
	3rd	Types of steel, Properties of structural steel.
	4th	Rolled steel sections, special consideration on steel design.
	5th	
2nd	1st	Load and Load combinations, Structural analysis & Design philosophy
	2nd	Principles of limit state design.
	3rd	Structural steel fastners and Connections – Bolted connections, adv. & dis adv.
	4th	Diff. teriminology, spacing and edge distance of bolt holes, types of bolted connection
	5th	
3rd	1st	Assumptions and principles of design
	2nd	Strength of plats in ajoint, Streength of bearing type of bolts
	3rd	Sheare capacity, Bearing capacity. HSFG bolts
	4th	Efficieney of joints
	5th	

WEEK	Class Day	Theory Topics
4th	1st	Problem Practice.
	2nd	Problem Practice
	3rd	Problem Practice.
	4th	Problem Practice.
	5th	
5th	1st	Problem Practice.
	2nd	Welded Connections - Adv. dis adv. of welded connections, types of joints
	3rd	Design stresses in welds Strength of welded joints.
	4th	Problem Practice
	5th	
6th	1st	Problem Practice
	2nd	Problem Practice
	3rd	Problem Practice.
	4th	Design of steel tension Members - common shapes tension members,
	5th	Class Test - 1

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WEEK	Class Day	Theory Topics
7th	1st	Maximum values of effective slenderness ratio
	2nd	Analysis and design of tension member
	3rd	Analysis of tension member
	4th	Problem Practice
	5th	
8th	1st	Problem Practice
	2nd	Problem Practice
	3rd	Problem Practice
	4th	Problem Practice
	5th	
9th	1st	Problem Practice
	2nd	Problem Practice
	3rd	Design of steel Compression members - Common shapes of compression members.
	4th	Buckling class of cross sections, slenderness ratio.
	5th	

WEEK	Class Day	Theory Topics
10th	1st	Design compressive stress & strength of compression members.
	2nd	Analysis of compression member
	3rd	Design of comp. member.
	4th	Problem Practice
	5th	Class test - 02
11th	1st	Problem Practice
	2nd	Problem Practice
	3rd	Problem Practice
	4th	Design of steel Beams :- Common cross sections & their classification
	5th	
12th	1st	Deflection limits, web bucking, web crippling
	2nd	Design compressive stress of laterally supported beams against bending and shear
	3rd	Problem Practice
	4th	Problem Practice.
	5th	

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WEEK	Class Day	Theory Topics
13th	1st	Problem Practice
	2nd	Problem Practice.
	3rd	Design of Tubular Steel Structures - Round tubular section, Permissible stress
	4th	Tubular compression & tension members
	5th	ID
14th	1st	Joints in Tubular trusses
	2nd	Problem Practice
	3rd	Problem Practice.
	4th	Problem Practice.
	5th	
15th	1st	Design of Masonary structures - Design considerations for Masonary walls & Columns
	2nd	Load Bearing & Non Load Bearing walls
	3rd	Permissible stresses, Slenderness ratio
	4th	Effective length, Height & thickness
	5th	

WEEK	Class Day	Theory Topics
	1st	Problem Practice
16th	2nd	Problem Practice.
	3rd	Problem Practice.
	4th	Class test - 3.
	5th	
1	1st	
	2nd	
	3rd	
	4th	
	5th	
1	1st	
	2nd	
	3rd	
	4th	
1	5th	