ADARSHA SCHOOL OF ENGINEERING & I.P., ANGUL

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN FOR 5th SEMESTER, SESSION 2022-23

CIVIL ENGINEERING	5th SEMESTER	NAME OF THE FACULTY : B. SINGH
Structural Design -II	CLASS ALLOTTED- 4 DAYS/ WEEK	SEMESTER FROM DATE 15.09.2022 TO DATE 22.12.2022 NUMBER OF WEEKS - 15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1st	1st	Introduction, spacing & edge distance of bolts,
	2nd	Types of bolted connections,
	3rd	Types of action of fasteners, principles of design.
	4th	Strength of plates in a joint, shear capacity,
2nd	1st	Analysis & design of joints using bearing type & HSFG bolts
	2nd	Efficiency of a joint.
	3rd	Welded connections.
	4th	Advantage & disadvantages of welded connections
3rd	1st	Types of welded joints & specifications for welding
	2nd	Design stress in welds.
	3rd	Strength of welded joints
	4th	Design of steel tension members. Common shapes
4th	1st	Common shapes, Max^m values of effective S/R
	2nd	Analysis & design of tension members.
	3rd	Design of steel Compression members, different shapes
	4th	Buckling class of cross sections,
5th	1st	Slenderness ratio.
	2nd	Design Compressive stress & strength of Compression members.
	3rd	Analysis & design of Compression members (Axial load)
	4th	Design of steel beams :
6th	1st	Common Cross sections.
	2nd	Deflection limit
	3rd	Web buckling & web crippling,
	4th	Design of laterally supported beams against bending
7th	1st	Design of laterally supported beams against shear.
	2nd	Design of steel tubular sections,
	3rd	Permissible stresses

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	4th	Tubular Compression members
8th	1st	Tubular tension members
	2nd	Joints in Tubular trusses.
	3rd	Design of Masonry walls.
	4th	Design of Masonry Dams
9th	1st	Load bearing walls
	2nd	Non-load bearing walls.
	3rd	Permissible Stresses
	4th	Slenderness ratio
10th	1st	Effective length
	2nd	Effective height
	3rd	Effective thickness
	4th	
11th	1st	
	2nd	
	3rd	
	4th	
12th	1st	
	2nd	
	3rd	
	4th	
13th	1st	
	2nd	
	3rd	
	4th	
14th	1st	
	2nd	
	3rd	
	4th	
15th	1st	
	2nd	
	3rd	
	4th	

Dr Singh
14/09/2022