PROGRAMME : CIVIL ENGINEERING **COURSE NAME :STRUCTURAL DESIGN– II** **COURSE CODE : TH-2** **SEMESTER : 5TH** **PERIODS/WEEK : 4** **TOTAL PERIODS : 60**	**NAME OF THE FACULTY : DURLAVI SWAIN** **SESSION : 2022-2023** **DATE :15-09-2022 to 21-01-2023**

WEEK	CLASS	TOPICS
1	1	Common steel structures,Advantages & disadvantages of steel structures
	2	Types of steel,properties of structural steel.
	3	Types of steel,properties of structural steel.
	4	Rolled steel sections,special considerations in steel design
2	1	Loads and load combinations
	2	Structural analysis and design philosophy
	3	Brief review of Principles of Limit State design
	4	Brief review of Principles of Limit State design
3	1	Brief review of Principles of Limit State design
	2	Bolted Connections
	3	Bolted Connections
	4	Classification of bolts,advantages and disadvantages of bolted connections
4	1	Different terminology,spacing and edge distance of bolt holes
	2	Types of bolted connections
	3	Types of action of fasteners,assumptions and principles of design.
	4	Strength of plates in a joint,strength of bearing type bolts(shear capacity&bearing capacity),reduction factors,and shear capacity of HSFG bolts.
5	1	Analysis & design of Joints using bearing type and HSFG bolts(except eccentric Load and prying forces)
	2	Efficiency of a joint,Welded Connections:,
	3	Advantages and Disadvantages of welded connection
	4	Types of welded joints and specifications for welding
6	1	Design stresses in welds.Strength of welded joints.
	2	Common shapes of tension members.
	3	Maximum values of effective slenderness ratio
	4	Analysis and Design of tension members.(Considering strength only and concept of block shear failure
7	1	Common shapes of compression members.
	2	Buckling class of crosssections ,slenderness ratio
	3	Design compressive Stress and strength of compression members
	4	Analysis and Design of compression members (axial load only).
8	1	Common crosssections and their classification.
	2	Common crosssections and their classification.
	3	Common crosssections and their classification.
	4	Deflection limits,web buckling and web crippling
9	1	Deflection limits,web buckling and web crippling
	2	Design of laterally supported beams against bending and shear.
	3	Round Tubular Sections, Permissible Stresses
	4	Round Tubular Sections ,Permissible Stresses

10	**1**	Tubular Compression & Tension Members
	2	Tubular Compression & Tension Members
	3	Tubular Compression & Tension Members
	4	Tubular Compression & Tension Members
11	**1**	Joints in Tubular trusses
	2	Joints in Tubular trusses
	3	Design considerations for Masonry walls & Columns
	4	Load Bearing
12	**1**	Load Bearing & Non-Load Bearing walls
	2	Load Bearing & Non-Load Bearing walls
	3	Permissible stresses
	4	Slenderness Ratio
13	**1**	Slenderness Ratio
	2	Effective Length, Height & Thickness
	3	Effective Length ,Height &Thickness
	4	Effective Length, Height &Thickness
14	**1**	Revision of Chapter-1:
	2	Revision of Chapter-2
	3	Revision of Chapter-3:
	4	Revision of Chapter-4:
15	**1**	Revision of Chapter-5:
	2	Revision of Chapter-6:
	3	Revision of Chapter-7:
	4	Revision of Chapter-7: