LESSON PLAN OF 5th SEMESTER(2018-21) CIVIL ENGINEERING

Discipline :- CIVIL	Semester:- 5th	Name of the Teaching Faculty:- Mr.RABINDRA SAHU
Subject:- Structural design-ii Th.-2	No of Days/per Week Class Allotted :- 04	Semester From:- **01.09.2020** To:- **19.03.2021** No of Weeks:- **29**

Week	Class Day	Theory Topics
1st	1st	**1.0 Introduction:** 1.1 Common steel structures, Advantages & disadvantages of steel structures.
	2nd	1.2 Types of steel, properties of structural steel.
	3rd	1.3 Rolled steel sections, special considerations in steel design.
	4th	1.4 Loads and load combinations.
2nd	1st	1.5 Structural analysis and design philosophy.
	2nd	1.6 Brief review of Principles of Limit State design.
	3rd	Numerical
	4th	Numerical
3rd	1st	**2.0 Structural Steel Fasteners and Connections.** 2.1 Bolted Connections 2.1.1 Classification of bolts, advantages and disadvantages of bolted connections.
	2nd	2.1.2 Different terminology, spacing and edge distance of bolt holes.
	3rd	2.1.3 Types of bolted connections.
	4th	2.1.4 Types of action of fasteners, assumptions and principles of design.
4th	1st	2.1.5 Strength of plates in a joint, strength of bearing type bolts (shear capacity& bearing capacity), reduction factors, and shear capacity of HSFG bolts.
	2nd	2.1.6 Analysis & design of Joints using bearing type and HSFG bolts (except eccentric load and prying forces)
	3rd	2.1.7 Efficiency of a joint.
	4th	2.2 Welded Connections: 2.2.1 Advantages and Disadvantages of welded connection
5th	1st	2.2.2 Types of welded joints and specifications for welding
	2nd	2.2.3 Design stresses in welds.
	3rd	2.2.4 Strength of welded joints.
	4th	Numerical
6th	1st	Numerical
	2nd	Numerical
	3rd	**3.0 Design of Steel tension Members** 3.1 Common shapes of tension members.
	4th	3.2 Maximum values of effective slenderness ratio.
7th	1st	3.3 Analysis and Design of tension members.(Considering strength only and concept of block shear failure.)
	2nd	Numerical
	3rd	Numerical
	4th	Numerical
8th	1st	Numerical
	2nd	**4.0 Design of Steel Compression members.** 4.1 Common shapes of compression members.
	3rd	Numerical

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	4th	4.2 Buckling class of cross sections, slenderness ratio
9th	1st	Numerical
	2nd	4.3 Design compressive stress and strength of compression members.
	3rd	Numerical
	4th	4.4 Analysis and Design of compression members (axial load only).
10th	1st	Numerical
	2nd	Numerical
	3rd	**5.0 Design of Steel beams:** 5.1 Common cross sections and their classification.
	4th	5.2 Deflection limits
11th	1st	web buckling and web crippling.
	2nd	Numerical
	3rd	Numerical
	4th	5.3 Design of laterally supported beams against bending and shear.
12th	1st	Numerical
	2nd	Numerical
	3rd	Numerical
	4th	Numerical
13th	1st	**6.0 Design of Tubular Steel Structures:** 6.1 Round Tubular Sections
	2nd	Permissible Stresses
	3rd	Numerical
	4th	6.2 Tubular Compression & Tension Members
14th	1st	Numerical
	2nd	6.3 Joints in Tubular trusses
	3rd	Numerical
	4th	Numerical
15th	1st	Numerical
	2nd	Numerical
	3rd	**7.0 Design of Masonry Structures:** 7.1 Design considerations for Masonry walls & Columns
	4th	Load Bearing & Non-Load Bearing walls
16th	1st	Permissible stresses
	2nd	Slenderness Ratio
	3rd	Effective Length, Height & Thickness.
	4th	Numerical
17th	1st	Numerical
	2nd	Numerical
	3rd	Numerical
	4th	Numerical
18th	1st	Revision class
	2nd	
	3rd	
	4th	
19th	1st	Revision class
	2nd	
	3rd	
	4th	
20th	1st	Revision class
	2nd	
	3rd	

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	4th			
21th	1st			Revision class
	2nd			
	3rd			
	4th			
22th	1st			Revision class
	2nd			
	3rd			
	4th			
23th	1st			Revision class
	2nd			
	3rd			
	4th			
24th	1st			Revision class
	2nd			
	3rd			
	4th			
25th	1st			Revision class
	2nd			
	3rd			
	4th			
26th	1st			Revision class
	2nd			
	3rd			
	4th			
27th	1st			Revision class
	2nd			
	3rd			
	4th			
28th	1st			Previous year questions discuss
	2nd			
	3rd			
	4th			
29th	1st			Previous year questions discuss
	2nd			
	3rd			
	4th			

Signature of the concerned Lecturer 01/09/20

Signature of the H.O.D 01/09/20

Signature of Academic Coordinator 09/09/20

Signature of the Principal 01/09/20

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