

Disciplines:- Civil Engg.	Semester:- 5 th	Name of Teaching faculty:- En. Tarini Maharana
Subject:- Structural Design - II	No of days / week class allotted:- 5 Nos.	Semester from:- 15.9.2022 to 22.12.2022 TH/205
<u>WEEKS</u>	<u>CLASS DAY</u>	<u>THEORY</u>
	1 st	
12.09.2022 to 17.09.2022	2 nd 3 rd	Common steel structure, advantages & disadvantages of steel structure.
	4 th	Types of steel, properties of structural steel.
	5 th	← BISWAKARMA PUSA →
19.09.2022 to 24.09.2022	1 st 2 nd 3 rd	Rolled steel sections, special considerations in steel design. Loads and load combinations. Structural Analysis & Design philosophy.
	4 th	Brief review of Principles of Limit State Design.
	5 th	Bolted connections - classification of bolts, advantages & disadvantages of bolted connection.
26.09.2022 to 01.10.2022	1 st 2 nd 3 rd 4 th	Different terminology, spacing and edge distance of boltholes. Types of bolted connections. Types of actions of fasteners, assumptions & principal of Design. Strength of plates in joint, strength of bearing type bolts (shear capacity & bearing capacity) reduction factors, and shear capacity of HSEFG bolts.
	5 th	Analysis & design of joints using bearing type and HSEFG bolts (except eccentric load and prying forces). Efficiency of a joint.

<u>WEEKS</u>	<u>CLASS DAY</u>	<u>THEORY</u>
	1 st	
03.10.2022	2 nd	
to	3 rd	
08.10.2022	4 th	
	5 th	
	1 st	
10.10.2022	2 nd	
to		
15.10.2022	3 rd	
	4 th	
	5 th	
	1 st	
17.10.2022	2 nd	
to		
22.10.2022	3 rd	
	4 th	
	5 th	
	1 st	
24.10.2022	2 nd	
to		
29.10.2022	3 rd	
	4 th	
	5 th	
	1 st	
31.10.2022	2 nd	
to	3 rd	
05.11.2022	4 th	
	5 th	

← PUJA HOLIDAY →

Welded connection:- Advantages & disadvantages of welded connection.
Types of welded joints and specifications for welding.

Design stresses in welds.
Strength of welded joints.
Continuing.....

Common shapes of tension member.

Continuing.....

Maximum values of effective slenderness ratio.

Problem practice.

Continuing.....

← DIWALI →

Analysis and design of tension members. (considering strength only and concept of block shear failure).

Continuing.....

Continuing.....

Continuing.....

Common shapes of compression member

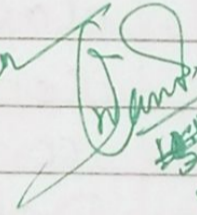
Continuing.....

Buckling class of cross sections.
Slenderness Ratio.

Design compressive stress and strength of compression members.

<u>WEEKS</u>	<u>CLASS DAY</u>	<u>THEORY</u>
07.11.2022 to 12.11.2022	1 st 2 nd 3 rd 4 th 5 th	LAST MONDAY OF KARTIKA RASA PURNIMA Numericals of Design compressive stress of compression member. Numericals of design compressive stress of compression member. Numericals of design compressive stress of compression member.
14.11.2022 to 19.11.2022	1 st 2 nd 3 rd 4 th 5 th	Analysis of and design of compression members (Axial load only) Continuing..... PRATHAMASTAMI Continuing..... Common cross section and their classifications.
21.11.2022 to 26.11.2022	1 st 2 nd 3 rd 4 th 5 th	Continuing..... continuing..... Deflection limits web buckling web crippling
28.11.2022 to 03.12.2022	1 st 2 nd 3 rd 4 th 5 th	Design of laterally supported beams against bending and shear. Design problem practice Design problem practice Design problem practice Round Tubular section
05.12.2022 to 10.12.2022	1 st 2 nd 3 rd 4 th 5 th	Permissible stresses. Continuing..... LAST THURSDAY OF MARGASIRA Tubular Compression & Tension members Continuing.....

<u>WEEKS</u>	<u>CLASS DAY</u>	<u>THEORY</u>
	1 st	Joints in Tubular trusses.
12.12.2022	2 nd	Continuing
to	3 rd	Design considerations for masonry walls.
17.12.2022	4 th	Design considerations for masonry column.
	5 th	Design considerations for masonry load bearing & Non-load bearing walls.
	1 st	Permissible stresses
19.12.2022	2 nd	Slenderness Ratio
to	3 rd	Effective length, Height &
22.12.2022		Thickness.

Seen 
~~15.12.2022~~
 15.09.2022