5th Civil

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

SIVARAM VIHAR, GHATAKESWAR HILLS
MOHADA, BERHAMPUR (GM.)

STUDENT'S ATTENDANCE REGISTER

Time / Day	9:55 – 10:45	10:45 – 11:30	1:55 – 2:45		
MON	✓				
WED			✓		
THU	✓				
SAT		✓			

Year/ Session	15/9/22 to 22/12/22
Semester & Branch	5th Sem, Civil department
Subject with Code	Th-2 - Structural Design - II
Name of the Faculty Member	Bopinakumar Tripathy

B.I.E.T.
SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
CHAPTER-1			
INTRODUCTION:			
- Common steel structures, Advantages & disadvantages of steel structures	15.09.22		
- Types of steel, properties of structural steel	19.09.22		
- Rolled steel sections, special considerations in steel design	20.09.22		
- Loads & Load Combinations	21.09.22		
- Structural analysis & design philosophy			
- Brief view of principles of Limit state design	21.09.22		
CHAPTER -2			
STRUCTURAL STEEL FASTENERS & CONNECTIONS.			
- Bolted Connections			
- Classification of bolts, advantages	29.09.22		12/9/22

Verified 12.9.22

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D
& disadvantages of bolted connections • Different terminology, spacing & edge distance of bolt holes • Types of bolted connections	24.09.22		
• Types of action fasteners, assumptions & principles of design	26.09.22		
• Strength of plates in a joint, strength of bearing type of bolts (shear capacity & bearing capacity), reduction factors & shear capacity of HSFG bolts	28.09.22		
• Analysis & design of Joints using bearing type & HSFG bolts (except eccentric load & prying forces)	29.09.22		
• Efficiency of a Joint Welded Connections- • Advantages & disadvantages of welded connection	1.10.22 12.10.22		
• Types of welded joints & specifications for welding	13.10.22		

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
• Design of stresses in welds	15.10.22		
• Strength of welded joints	17.10.22		
CHAPTER-3			
DESIGN OF STEEL TENSION MEMBER -			
	18.10.22		
• Common shapes of tension members	19.10.22		
	20.10.22		
• Maximum values of effective Slenderness ratio	22.10.22		
	25.10.22		
	26.10.22		
Analysis & Design of tension members (Considering strength only & concept of block shear failure)	27.10.22		
	29.10.22		
	31.10.22		
	2.11.22		

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D
CHAPTER-4 DESIGN OF STEEL COMPRESSION MEMBER			
• Common shapes of compression members	3.11.22 5.11.22 7.11.22		
• Buckling class of cross sections	9.11.22		
• Slenderness Ratio	10.11.22 12.11.22 14.11.22		
• Design compressive stress & Strength of compression members	15.11.22 16.11.22		
• Analysis & Design of compression members (axial loads only)	17.11.22		

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
CHAPTER-5			
DESIGN OF STEEL BEAMS:-	19.11.22		
• Common cross sections & their Classification	21.11.22 22.11.22 23.11.22		
• Deflection limits, web buckling & web crippling	23.11.22 24.11.22 26.11.22		
• Design of laterally supported beams against bending & shear.	28.11.22 30.11.22 1.12.22		
CHAPTER-6			
DESIGN OF TUBULAR STEEL STRUCTURES			
Round Tubular sections	3.12.22		
Permissible Stresses	5.12.22 6.12.22		12/9/22
Tubular Compression & Tension members	7.12.22		

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D
	7.12.22		
• Joints in Tubular trusses	08.12.22		
CHAPTER-7			
DESIGN OF MASONARY STRUCTURES			
• Design considerations for masonary walls & columns	10.12.22		
	12.12.22		
Load Bearing Wall	13.12.22		
Non- load bearing walls	14.12.22		
Permissible stresses	15.12.22		
	17.12.22		
Slenderness Ratio	19.12.22		
Effective length	21.12.22		
Height & Thickness	22.12.22		12/9/22

Verified
Prodyumna
12.9.22