BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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

STUDENT'S ATTENDANCE REGISTER

Time / Day	9.55 – 10.45	11.30 – 12.25	12.25 – 1.15		
Mon	✓				
Tue			✓		
Wed					
Thu					
Fri		✓			
Sat			✓		

Year/ Session : 2023 (winter)	Semester from Date: 01/08/2023 To Date : 30/11/2023
Semester & Branch	5th Sem, Civil
Subject with Code	Th-02 Structural Design-2
Name of the Faculty Member	Bipin Kumar Tripathy
No of Weeks:	No of Class Allotted/Week :

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			I) Introduction
		1.8.23	i) Common steel structure, advantages and disadvantages of steel structure.
		4.8.23	ii) Types of steel, properties of structural steel.
August		5.8.23	iii) Rolled steel sections, special considerations in steel design.
		7.8.23	iv) Loads & load combination
		8.8.23	v) structural analysis & design Philosophy
			vi) Brief review of principles of limit state design.
			2) Structural steel fasteners & connections
		11.8.23	i) Bolted connections
August		12.8.23	ii) classification of bolts, advantages & disadvantages of bolted connections.
		14.8.23	iii) Different terminology, spacing & edge distance of bolt holes.
			iv) Types of bolted connections.

Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD:

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
		18.8.23	iv) Types of fasteners, assumptions and principles of design.
		19.8.23	v) Strength of plates in a joint, Strength of bearing type bolt, reduction factor and shear capacity of HSFG bolts.
August		21.8.23	vi) Analysis & design of joints using bearing type and HSFG bolts.
		22.8.23	vii) Efficiency of bolt
August			viii) Welded Connection
		25.8.23	ix) Advantages & disadvantages of welded connection.
		26.8.23	x) Types of welded joints & specification for welding.
August		28.8.23	xi) Design stresses in welds.
			xii) Strength of welded joints.

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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
		29.8.23	3) (II) Design of steel tension members
		1.9.23	
		2.9.23	i) Common shapes of tension
		4.9.23	members.
		5.9.23	ii) Maximum values of effective
September		8.9.23	slenderness ratio:
		9.9.23	iii) Analysis & (II) Design of tension
		11.9.23	members.
		12.9.23	
		15.9.23	
			4) (II) Design of steel compression members
		16.9.23	i) Common shapes of compress-
		17.9.23	ion members.
September		18.9.23	
		22.9.23	ii) Buckling class of cross-sections,
		23.9.23	Slenderness ratio.
		25.9.23	iii) (II) Design Compressive stress &
		26.9.23	Strength of compression
September		29.9.23	members.
		30.9.23	iv) Analysis & design of compression
		3.10.23	members

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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
October		6.10.23	5) Design of steel structure
		7.10.23	c) Common cross sections & their classification
		9.10.23	
		10.10.23	ii) Deflection limits, web buckling & web crippling.
		13.10.23	
		16.10.23	iii) Design of laterally supported beams against bending and shear.
		17.10.23	
		30.10.23	
		31.10.23	
		3.11.23	6) Design of tubular steel structure
November		4.11.23	c) Round tubular sections, Permissible stresses
		6.11.23	
		7.11.23	ii) tubular compression & tension members.
		10.11.23	
		11.11.23	
		13.11.23	iii) Joints in tubular trusses.

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B.I.E.T.,COURSE PLAN

onth	Week	Class Day	Theory/Practical Topic
November		16.11.23 17.11.23 18.11.23 20.11.23 21.11.23 23.11.23 24.11.23 25.11.23 28.11.23	7) II Design of Masonary Structure i) II Design consideration for Masonary walls & columns. ii) Load bearing & Non load bearing walls. iii) Permissible stresses. iv) Slenderness ratio. v) Effective length vi) height & thickness.

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