BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF CIVIL ENGINEERING
LESSON PLAN

SUBJECT NAME-STRUCTRAL DESIGN 2 (TH-2) TOTAL NO. OF WEEK-15

SEMESTER-5TH TOTAL PERIODS-60 CLASSES ALLOTED PER WEEK-4

NAME OF TEACHING FACULTY –**SANDHYARANI BEHERA** SUMMER SESSION-(2020-2021)

Week & Date	No of Periods Available	Topics to be covered	Topics actually covered	If any Short fall	Reason of short fall	How to make up	Remarks/ Signature with date
1st 08-08-2020, 10-08-2020, 11-08-2020	03	**Introduction:** 1.1 Common steel structures, Advantages & disadvantages of steel structures. 1.2 Types of steel, properties of structural steel. 1.3 Rolled steel sections, special considerations in steel design. 1.4 Loads and load combinations. 1.5 Structural analysis and design philosophy.	**Introduction:** 1.1 Common steel structures, Advantages & disadvantages of steel structures. 1.2 Types of steel, properties of structural steel. 1.3 Rolled steel sections, special considerations in steel design. 1.4 Loads and load combinations. 1.5 Structural analysis and design philosophy.	NIL	—	—	Sandhya

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2nd 17-08-2020, 18-08-2020, 21-08-2020	04	1.6 Brief review of Principles of Limit State design. **MCQ Test** **Structural Steel Fasteners and Connections**. 2.1 **Bolted Connections** 2.1.1 Classification of bolts, advantages and disadvantages of bolted connections. 2.1.2 Different terminology, spacing and edge distance of bolt holes. 2.1.3 Types of bolted connections. 2.1.4 Types of action of fasteners, assumptions and principles of design.	1.6 Brief review of Principles of Limit State design. **MCQ Test** **Structural Steel Fasteners and Connections**. 2.1 **Bolted Connections** 2.1.1 Classification of bolts, advantages and disadvantages of bolted connections. 2.1.2 Different terminology, spacing and edge distance of bolt holes. 2.1.3 Types of bolted connections. 2.1.4 Types of action of fasteners, assumptions and principles of design.	NIL	—	—	Sandhya
3rd 24-08-2020, 26-08-2020, 29-08-2020	03	2.1.4 Types of action of fasteners, assumptions and principles of design. 2.1.5 Strength of plates in a joint, strength of bearing type bolts (shear capacity& bearing capacity), reduction factors.	2.1.4 Types of action of fasteners, assumptions and principles of design. 2.1.5 Strength of plates in a joint, strength of bearing type bolts (shear capacity& bearing capacity), reduction factors.	NIL	—	—	Sandhya
4th 03-09-2020, 04-09-2020	02	2.1.6 Analysis & design of Joints using bearing type bolt. 2.1.7 Efficiency of a joint.	2.1.6 Analysis & design of Joints using bearing type bolt. 2.1.7 Efficiency of a joint.	NIL	—	—	Sandhya
5th 07-09-2020,	04	2.1.6 Analysis & design of Joints using bearing type bolt.	2.1.6 Analysis & design of Joints using bearing type bolt. 2.1.7 Efficiency of a joint.				Sandhya

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09-09-2020, 10-09-2020, 11-09-2020		2.1.7 Efficiency of a joint. 2.1.6 Analysis & design of Joints using HSFG bolts **MCQ Test** 2.2 **Welded Connections:** 2.2.1 Advantages and Disadvantages of welded connection 2.2.2 Types of welded joints and specifications for welding	2.1.6 Analysis & design of Joints using HSFG bolts **MCQ Test** 2.2 **Welded Connections:** 2.2.1 Advantages and Disadvantages of welded connection 2.2.2 Types of welded joints and specifications for welding	NIL	—	—	
6th 14-09-2020, 16-09-2020, 17-09-2020, 18-09-2020	04	2.2.2 Types of welded joints and specifications for welding 2.2.3 Design stresses in welds.	2.2.2 Types of welded joints and specifications for welding 2.2.3 Design stresses in welds.	NIL	—	—	
7th 21-09-2020, 23-09-2020, 24-09-2020, 25-09-2020	04	2.2.4 Strength of welded joints. **MCQ Test** **Design of Steel tension Members** 3.1 Common shapes of tension members. 3.2 Maximum values of effective slenderness ratio.	2.2.4 Strength of welded joints. **MCQ Test** **Design of Steel tension Members** 3.1 Common shapes of tension members. 3.2 Maximum values of effective slenderness ratio.	NIL	—	—	
8th 28-09-2020, 30-09-2020, 01-10-2020, 02-10-2020	04	3.4 Analysis and Design of tension members.(Considering strength only and concept of block shear failure.) **MCQ Test**	3.4 Analysis and Design of tension members.(Considering strength only and concept of block shear failure.) **MCQ Test**	NIL	—	—	

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9th 05-10-2020, 07-10-2020, 08-10-2020, 09-10-2020	04	3.4 Analysis and Design of tension members.(Considering strength only and concept of block shear failure.) **MCQ Test** **Design of Steel Compression members.** 4.1 Common shapes of compression members. 4.2 Buckling class of cross sections, slenderness ratio	3.4 Analysis and Design of tension members.(Considering strength only and concept of block shear failure.) **MCQ Test** **Design of Steel Compression members.** 4.1 Common shapes of compression members. 4.2 Buckling class of cross sections, slenderness ratio	NIL	—	—	
10th 12-10-2020, 14-10-2020, 15-10-2020, 16-10-2020	04	4.3 Design compressive stress and strength of compression members. 4.4 Analysis and Design of compression members (axial load only). **MCQ Test**	4.3 Design compressive stress and strength of compression members. 4.4 Analysis and Design of compression members (axial load only). **MCQ Test**	NIL	—	—	
11th 19-10-2020, 21-10-2020, 22-10-2020, 23-10-2020	04	**Design of Steel beams:** 5.1 Common cross sections and their classification. 5.2 Deflection limits, web buckling and web crippling.	**Design of Steel beams:** 5.1 Common cross sections and their classification. 5.2 Deflection limits, web buckling and web crippling.	NIL	—	—	
12th 02-11-2020, 04-11-2020, 05-11-2020, 06-11-2020	04	5.3 Design of laterally supported beams against bending and shear. **MCQ Test**	5.3 Design of laterally supported beams against bending and shear. **MCQ Test**	NIL	—	—	
13th 09-11-2020, 12-11-2020,	03	**Design of Tubular Steel Structures:** 6.1 Round Tubular Sections,	**Design of Tubular Steel Structures:** 6.1 Round Tubular Sections, Permissible Stresses	NIL	—	—	

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13-11-2020		Permissible Stresses 6.2 Tubular Compression & Tension Members	6.2 Tubular Compression & Tension Members				
14th 16-11-2020, 18-11-2020, 19-11-2020, 20-11-2020	04	6.3 Joints in Tubular trusses **MCQ Test** **Design of Masonry Structures:** 7.1 Design considerations for Masonry walls & Columns, Load Bearing & NonLoad Bearing walls, Permissible stresses, Slenderness Ratio, Effective Length, Height & Thickness.	6.3 Joints in Tubular trusses **MCQ Test** **Design of Masonry Structures:** 7.1 Design considerations for Masonry walls & Columns, Load Bearing & NonLoad Bearing walls, Permissible stresses, Slenderness Ratio, Effective Length, Height & Thickness.	yes	Lack of student interpretation	By taking Extra class	
15th 23-11-2020, 24-11-2020, 26-11-2020, 27-11-2020	04	**Design of Masonry Structures:** 7.1 Design considerations for Masonry walls & Columns, Load Bearing & NonLoad Bearing walls, Permissible stresses, Slenderness Ratio, Effective Length, Height & Thickness.	**Design of Masonry Structures:** 7.1 Design considerations for Masonry walls & Columns, Load Bearing & NonLoad Bearing walls, Permissible stresses, Slenderness Ratio, Effective Length, Height & Thickness. **MCQ Test**	yes	-do-	-do-	
16th 03-12-2020, 04-12-2020	02	**MCQ Test**		NIL	—	—	
17th 08-12-2020, 11-12-2020	02	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	

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18th 21-12-2020	01	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
19th 05-01-2021	01	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
20th 11-01-2021, 12-01-2021	02	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
21st 15-01-2021, 18-01-2021, 19-01-2021	03	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
22nd 22-01-2021, 25-01-2021	02	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
23rd 11-02-2021, 12-02-2021	02	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
24th 19-02-2021	01	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
25th 22-02-2021, 23-02-2021	02	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	
25th 01-03-2021, 03-03-2021	02	**Revision of syllabus and Discussion, Previous year Question discussion**	**Revision of syllabus and Discussion, Previous year Question discussion**	NIL	—	—	

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