

GOVERNMENT POLYTECHNIC, LAKHISARAI

(Lecture Plan)

Branch :- CIVIL ENGG.

Semester :- Vth

Subject :- Design Of Steel Structures (1615502)

Name of Faculty :- Mukesh Kumar (Lecturer)

Lecture No.	Unit no.	Topic	Date	Remarks
1	Unit -1 Introduction	Tyes of sections used, Grades of steel and strength characteristics; advantages and disadvantages of steel as construction material;	06-08-20	
2		Use of steel table and relevant I. S . code; Types of loads on steel structure and its I. S. code specification.	07-08-20	
3		Riveted connections, Types of rivets and their use,	08-08-20	
4		joint and its failure, Strength of riveted joint and efficiency of a riveted joint.	13-08-20	
5		Assumptions in theory of riveted joint Design of riveted joint for axially loaded member.	14-08-20	

6	Unit -2 Connections	Welded connection Introduction, Permissible stress in weld, strength of weld, advantages and disadvantages of welded joint. Types of weld and their symbols	20-08-20	
7		Design of fillet weld and butt weld subjected to axial load.	21-08-20	
8		Design of fillet weld and butt weld subjected to axial load.	22-08-20	
9	Unit – 3 Design of Tension Member	TYPES OF SECTIONS USED, PERMISSIBLE STRESSES IN AXIAL TENSION AND GROSS AND NET CROSS- SECTIONAL AREA OF TENSION MEMBER	27-08-20	
10		Analysis and Design of tension member with riveted connection.	28-08-20	
11		Analysis and Design of tension member with welded connection.	29-08-20	
12		Introduction to Lug Angle and Tension splice.	03-09-20	
13	Unit – 4 Design of Compression Member	Angle struts Types of Sections used, Effective length, Radius	04-09-20	
14		Analysis and Design of axially loaded angle struts with	05-09-20	
15		Analysis and Design of axially loaded angle struts with	10-09-20	
16		Stanchion and Columns types of sections used;	11-09-20	
17		Analysis and design of axially loaded column introduction to	12-09-20	
18		Analysis and design of axially loaded column introduction to	17-09-20	
19			18-09-20	

20	Unit – 5 Steel Roof Truss	Calculation of panel point load for Dead load; Live load and	19-09-20	
21		Analysis and Design of steel roof truss.	24-09-20	
22		Analysis and Design of steel roof truss.	25-09-20	
23		Design of Angle purlin as per I. S. Arrangement of members	26-09-20	
24		Design of Angle purlin as per I. S. Arrangement of members	01-10-20	
25	Unit – 6 Beams		03-10-20	
26		Permissible bending stresses. Design of simple beams, check	09-10-20	
27		Design of built-up beams (Symmetrical I Section with cover plates only), check for shear only.	10-10-20	
28		Introduction to Plate Girder: Various components and their	15-10-20	
29		Types of column bases design of slab base & concrete block	16-10-20	
30	Unit – 7 Column Bases	Types of column bases design of slab base & concrete block	17-10-20	
31		Types of column bases design of slab base & concrete block	29-10-20	
32		introduction to gusseted base (no numerical problems on	30-10-20	