GOVERNMENT POLYTECHNIC, LAKHISARAI

(Lecture Plan)

Branch :- CIVIL ENGG.
Semester :- Vth
Subject :- Theory Of Structure (1615501)
Name of Faculty :- Mukesh Kumar (Lecturer)

Lecture No.	Unit no.	Topic	Date	Remarks
1	Unit -1 Direct And Bending Stresses	Concept of direct and eccentric loads	04-08-20	
2		eccentricity about one principal axis, nature of stresses,	05-08-20	
3		maximum and minimum stresses, resultant stress distribution diagram.	10-08-20	
4		Condition for no tension or zero stress at extreme fiber	12-08-20	
5		limit of eccentricity, core of section for rectangular cross sections.	17-08-20	
6		limit of eccentricity, core of section for circular cross sections.	18-08-20	
7		Columns, pillars and chimneys of uniform section subject to lateral wind pressure,	19-08-20	
8		Columns of uniform section subject to lateral wind pressure,	24-08-20	
9		pillars of uniform section subject to lateral wind pressure,	25-08-20	
10		coefficient of wind resistance, stress distribution at bases	26-08-20	
11	Unit -2 Slope And Deflection	Concept of slope and deflection,	31-08-20	
12		stiffness of beam	01-09-20	
13		Relation between slope, deflection and	02-09-20	
14		double integration method to find slope	07-09-20	
15		double integration method to find slope	08-09-20	
16		double integration method to find slope	09-09-20	
17		Macaulay's method for slope and	14-09-20	
18		Macaulay's method for slope and	15-09-20	
19		Macaulay's method for slope and	16-09-20	
20		Macaulay's method for slope and	21-09-20	
21		Concept of fixity, effect of fixity, advantages and disadvantages of fixed beam.	22-09-20	
22		Principle of superposition.	23-09-20	

23	Unit – 3 Fixed Beam	Fixed end moments from first principle for beam subjected to UDL over entire span	28-09-20	
24		Fixed end moments from first principle for	29-09-20	
25		Application of standard formulae in	30-09-20	
26		Application of standard formulae in finding moments and drawing S.F. and	05-10-20	
27		Definition, effect of continuity practical	06-10-20	
28			07-10-20	
29		Application of theorem maximum up to three spans and two unknown support moment only, Support at same level, spans having same moment of inertia subjected to concentrated loads	12-10-20	
30		Application of theorem maximum up to three spans and two unknown support moment only, Support at same level, spans having same moment of inertia subjected to concentrated loads	13-10-20	
31	Unit – 4 Continuous Beam		14-10-20	
32		Application of theorem maximum up to three spans and two unknown support moment only, Support at same level, spans having same moment of inertia subjected to uniformly distributed loads over entire span.	19-10-20	
33		Application of theorem maximum up to three spans and two unknown support moment only, Support at same level, spans having same moment of inertia subjected to uniformly distributed loads over entire span.	20-10-20	
34		Drawing SF and BM diagrams for	28-10-20	
35	Unit – 5	Introduction, sign convention	02-11-20	
36			03-11-20	
37		Application of moment distribution	04-11-20	

38	Moment Distribution Method		09-11-20	
39			10-11-20	
40			11-11-20	
41		Application of moment distribution	24-11-20	
42		Application of moment distribution	25-11-20	
43	Unit – 6 Columns	Definition, classification of column	01-12-20	
44			02-12-20	
45		Buckling of axially loaded compression	07-12-20	
46		Assumptions in the theory of long column	08-12-20	
47		Application of Rankin's and Euler theory,	09-12-20	
48		Application of Rankin's and Euler theory,	14-12-20	