LESSON PLAN

SUBJECT: FEM **YEAR:2016-17**

SEM : I/II **Faculty: Mr. G.GOWRI SANKARARAO**

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Cumilative periods	Correction Action Upon Review
I & II	24-01-17	Introduction, A brief istory of FEM need of the method	I	CR	2	
III &IV	26-01-17	Review of the basic principles of the solid machanics			4	
I & II	31-01-17	Equilibrium of equations, boundary conditions			6	
III &IV	02-02-17	Solving the problems			8	
I & II	07-02-17	Solving the problems				
III &IV	09-02-17	Theory relating to the formulation of the finite element method	II		10	
I & II	14-02-17	Calculation of probelems			12	
III &IV	16-02-17	Co-ordinate system local and global			14	
I & II	21-02-17	Basic components and solving of the problems of single element			16	
III &IV	23-02-17	Solving the problems			18	
I & II	28-02-17	Derivation of the stiffness matrix, assembly of stiffness matrix	III		20	
III &IV	02-03-17	Solving the problems			22	
I & II	07-03-17	Solving the problems			24	
III &IV	09-03-17	Matrix boundary condition .All with reference to truss under axial loads			26	
I & II	16-03-17	Solving the problems			28	

I & II	28-03-17	Concept of element various elements shapes-Triangular element	IV		30	
III &IV	30-03-17	Discretization of a structure			32	
I & II	04-04-17	Mesh refinement vs higher order element			34	
III &IV	06-04-17	Inter connections of displacement models on inter element compatibility			36	
I & II	11-04-17	Solving the problems			38	
III &IV	13-04-17	Solving the problems			40	
I & II	18-04-17	Two Dimensional analysis-Stiffness matrix for a two noded truss element	V		42	
III &IV	20-04-17	Solving the problems			44	
I & II	25-04-17	Three model Truss element and two noded beam element in local & global (2d)			46	
III &IV	27-04-17	Solving the problems			48	
I & II	02-05-17	Solving the problems			50	
III &IV	04-05-17	Solving the problems			52	
I & II	01-06-17	Three-dimensional analysis, various element used,Tetrahedron	VI		54	
III &IV	06-06-17	Hex-hedrons			56	
I & II	08-06-17	Solving the problems			58	
III &IV	13-06-17	Requirement on representation of element behaviour function			60	
I & II	15-06-17	Solving the problems			62	