

LESSON PLAN

NAME OF THE FACULTY : SOHAN PATI
DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 4th
SUBJECT : STRUCTURE MECHANICS
LESSON PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 05

Week	Theory	
	Lecture Day	Topic
1 ST	1	Introduction of Structure mechanics.
	2	Force system and Equilibrium
	3	Force: Definition and its effect, characteristics.
	4	Force: Definition and its representation.
	5	Force: Definition and its types of forces
2 ND	6	Force Systems: Coplanar force systems
	7	Force Systems: Non coplanar force systems
	8	Types of coplanar Forces: Collinear, Concurrent
	9	Types of coplanar Forces: Parallel, Non concurrent
	10	Types of coplanar Forces: Non concurrent and Non parallel.
3 RD	11	Resultant force
	12	Resultant force and components of a force
	13	Laws of forces: Parallelogram
	14	Laws of forces: Triangle and polygon Laws of forces
	15	Laws of forces: polygon Laws of forces
4 TH	16	Free Body Diagram
	17	Lamis theorem
	18	Calculation of resultant of coplanar force systems
	19	Concept of Moment, Characteristics of moment.
	20	Resultant moment, Varignon's theorem
5 TH	21	Concept of couple, moment of a couple
	22	Equilibrium of rigid bodies
	23	Centroid and Moment of Inertia
	24	Definition of centre of Gravity and Centroid

	25	SESSIONAL TEST - 1
6TH	26	Centroid by method of moments of areas for square, rectangular, triangular cross- sections
	27	Centroid by method of moments of areas for L-shape, T-shape and I shape cross- sections
	28	Moments of Inertia by methods of moments and Radius of Gyration
	29	Parallel axis theorem
	30	Perpendicular Axis Theorem (no derivation)
7TH	31	Numerical on moment of inertia of Rectangular, Triangular and Circular
	32	Stress and Strain
	33	Elasticity, Elastic limit
	34	Definition of stress and strain
	35	Types of stress and strain
8TH	36	Stress strain curve for mild steel
	37	Hook's Law (Numerical)
	38	Shear Force and Bending Moment
	39	Types of loads- Dead load, Live load, snow, wind and seismic loads
	40	Types of loads- Wind and seismic loads
9TH	41	Types of loading: Point load, Uniformly distributed load
	42	Types of loading: uniformly varying load.
	43	Types of Beams: Simply supported, cantilever
	44	Types of Beams: Overhanging and continuous beams
	45	Types of Supports: Hinged, fixed supports.
10TH	46	Types of Supports: types of reactions provided by each type of support.
	47	Types of Beams: Simply supported, cantilever beams
	48	Types of Beams: overhanging and continuous beams
	49	Types of Beams: Simply supported, cantilever, overhanging and continuous beams
	50	SESSIONAL TEST - 2
11TH	51	Concept of bending moment
	52	Concept of shear force
	53	Bending moment and shear force diagrams for simply supported subjected to point loads
	54	Bending moment and shear force diagrams for cantilever subjected to point loads

	55	Bending moment and shear force diagrams over hanging beams subjected to point loads
12TH	56	Bending moment and shear force diagrams for simply supported subjected to uniformly distributed loads
	57	Bending moment and shear force diagrams for cantilever subjected to uniformly distributed loads
	58	Bending moment and shear force diagrams for overhanging beams subjected to uniformly distributed loads only
	59	Calculation of location and magnitude of Max Bending moment and point of contraflexure
	60	Calculation of location and magnitude of Max Bending moment
13TH	61	Calculation of point of contraflexure
	62	Bending stresses in Beams
	63	Introduction: Tension, compression
	64	Simple Bending and assumption of Simple Bending Theory.
	65	Position of Neutral Axis
14TH	66	Section Modulus.
	67	Moment of Resistance.
	68	Application of flexure equation ($M/I = f/y = E/R$)
	69	Maximum and permissible bending stresses
	70	Analysis of Perfect Frames
15TH	71	Types of pin jointed frames.
	72	Assumptions in computing the forces in members of a perfect frame.
	73	Analysis of perfect frames by method of joints.
	74	Analysis of perfect frames by method of joints.
	75	SESSIONAL TEST - 3

LESSON PLAN

NAME OF THE FACULTY : KUSUM DEVI
DISIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 4th
SUBJECT : BUILDING BYE LAWS
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 03

Week	Theory	
	Lecture Day	Topic
1ST	1	Introduction of building bye laws
	2	Need of building bye-laws for urban development.
	3	Basic Terminology of building bye-laws
2ND	4	Factors affecting planning of bye-laws
	5	Light and ventilation
	6	Mass
3RD	7	Volume
	8	Open space
	9	Skyline
4TH	10	Setbacks.
	11	Parking and Fire Safety
	12	Floor Area Ratio
5TH	13	Floor space index
	14	Bye laws
	15	SESSIONAL TEST - 1
6TH	16	Study Building Bye-laws
	17	Study Building Bye-laws of local development authorities
	18	Introduction to National Building Code.
7TH	19	Zoning
	20	Concept of zoning
	21	Objectives of zoning
8TH	22	Types of zoning OF residential
	23	Types of zoning OF commercial building

	24	Types of zoning OF other building
9TH	25	Types of zoning OF other building
	26	Case Study of existing residential with respect to implementation of local Bye laws
	27	Case Study of commercial building with respect to implementation of local Bye laws
10TH	28	Case Study of existing residential with respect to implementation of local Bye laws
	29	Case Study of commercial building with respect to implementation of local Bye laws
	30	SESSIONAL TEST - 2
11TH	31	Study of various Performas to be used
	32	BIS By-laws/standards for removing Architectural
	33	CPWD By-laws/standards for removing Architectural
12TH	34	Barriers for persons with disabilities (PWDs)
	35	Introduction to seismic zoning
	36	Introduction to earthquake
13TH	37	Introduction to seismic & earthquake
	38	resistant regulations
	39	Code provisions (IS-1893)
14TH	40	seismic zoning
	41	Preparation of one set of municipal drawing of a residential building already
	42	Preparation of one set of municipal drawing of a commercial already
15TH	43	Designed in A.D. showing all services along with performas.
	44	Designed in A.D. showing all services along with performas.
	45	SESSIONAL TEST - 3

LESSON PLAN

NAME OF THE FACULTY : SOHAN PATI
DISIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 4th
SUBJECT : WORKING DRAWING - 1
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 06

WEE	PRACTICAL	
	PRACTICAL DAY	TOPIC
1ST	1	Introduction of working drawing.
	2	Preparation of working drawings for a simple single room.
2ND	3	Preparation of working drawings for a simple single storeyed residential building:
	4	Site Plan
3RD	5	Preparing site plan on a suitable scale
	6	Preparing site plan on a suitable scale with complete dimensionin
4TH	7	Showing plot area, covered/built-up portion within the site.
	8	Showing Approach road, side roads, adjoining buildings/features,
5TH	9	SESSIONAL TEST-1
	10	Showing boundary wall with gates layout plan
6TH	11	Showing sewage pipes, water supply pipes, rain-water pipes
	12	Preparation of foundation layout plan with benchmark
7TH	13	Preparation of section details of foundations for brick external wall
	14	Preparation of brick internal wall, brick partition wall.
8TH	15	Preparation of brick toe wall, brick boundary wall and R.C.C Column.

	16	Preparation of R.C.C Column.
9TH	17	Preparation of Ground Floor plan with dimensions
	18	Preparation of specifications of various building components, schedule of joinery i.e. doors, window ventilators etc.
10TH	19	Showing the layout of sewage pipes, water supply pipes, Rain water pipe.
	20	SESSIONAL TEST-2
11TH	21	Preparation of terrace plan with the rain water disposal details and overhead water tank (Tile Terrace/Gola/Coba etc)
	22	Preparation of terrace plan with the rain water disposal details and overhead water tank (Tile Terrace/Gola/Coba etc)
12TH	23	Cross and longitudinal sections representing relationship with plans and elevation showing all heights, specifications, cill/lintel details etc.
	24	Cross and longitudinal sections representing relationship with plans and elevation showing all heights, specifications, cill/lintel details etc.
13TH	25	Front and rear elevations showing all the levels on faced to relate it to plan and section
	26	Details of: -Toilet (Plan, Elevations as required)
14TH	27	Details of: - Sections as required Toilet with specifications and details
	28	Details of: - Kitchen (Plan, Elevations as required) with specifications and details
15TH	29	Details of: - Sections as required Kitchen with specifications and details
	30	SESSIONAL TEST-3

LESSON PLAN

NAME OF FACULTY : KUSUM DEVI
DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 4TH
SUBJECT : COMPUTER APPLICATIONS IN
ARCHITECTURE - I
LESSON PLAN DURATION : 15 WEEKS
WORK LOAD (LECTURE/
PRACTICAL) PER WEEK : 4 PERIODS

	PRACTICAL	
WEEK	PRACTICAL DAY	TOPIC
1ST	1	Introduction to AutoCAD: Starting up, practice on – how to create a new drawing file, setting drawing limits & saving a file.
2ND	2	Drawing lines in different ways using absolute co-ordinates, user co-ordinates, WCS, UCS, drawing circles, arcs, ellipses. polygons, splines, polylines, using window, zoom commands
3RD	3	Practice on Modify commands such as erase, copy, mirror, array, offset, rotate, oops, undo, redo, scale, stretch command
4TH	4	Practice on Text commands: editing text, text size, text styles, change properties commands
5TH	5	SESSIONAL TEST-1
6TH	6	Practice on trim, break, extend, chamfer, fillet, O snap command; Draw orthographic views of simple objects
7TH	7	Practice on Layer Commands: creating layer, freeze, layer on/off, lock & unlock layer, move from one layer to other.
8TH	8	Practice on Layer Commands: color assigning, current layer, load line type; Practice on hatching,
9TH	9	Practice on Dimensioning, linear dimensioning, angular dimensioning radius/diameter dimensioning, snap command, aligned dimensioning; applying tolerance; Editing of dimensioning
10TH	10	SESSIONAL TEST-2
11TH	11	Practice on print commands. Export commands Practice on plot commands. Import commands
12TH	12	Practice on making complete drawings of 2 Dimensional geometrical figures using AUTOCAD (2D)
13TH	13	Practice on making complete drawings of composition of 2 Dimensional geometrical figures using AUTOCAD (2D)
14TH	14	Practice on making complete Single storey plan of using AUTOCAD (2D)
15TH	15	SESSIONAL TEST-3

LESSON
PLAN

NAME OF THE FACULTY : SOHAN PATI
 DISIPLINE : ARCHITECTURAL ASSISTANTSHIP
 SEMESTER : 4th
 SUBJECT : ARCHITECTURAL DESIGN - III
 LESSION PLAN DURATION : 15 WEEKSWORK LOAD PER WEEK :

Week	Theory	
	Lecture Day	Topic
1 ST	1	Introduction about design, Introduction about Health centre, Framing of Requirement, Inter-relation of various spaces and circulation pattern.
	2	Site visit to Health centre to studying the planning, inter relation of space and various areas, circulation pattern, Landscaping, Lighting / Vent. And other features
2 ND	3	Report working of the Health Centre visitef with sketches
	4	Discussion and viva voce of report
3 RD	5	Preliminary design started with concept plan
	6	Discussion and finalization of rough plan
4 TH	7	Preliminary of G.F plan & Site plan
	8	Completion of all floor plans with furniture layout & rendership, Elevation section and view
5 TH	9	SESSIONAL TEST-1
	10	Completion of set of plans, elevations, view with full rendering
6 TH	11	Viva- Voce and checking of Health Centre Project
	12	Viva- Voce and checking of Health Centre Project
	13	Site Visit to Shopping Complex

7TH	14	Test of Shopping Complex
8TH	15	Test of continued
	16	Viva- Voce of Shopping Complex Drawings
9TH	17	Introduction about nursery school project framing of requirements, inter- relation of spaces and circulation pattern.
	18	Site visit to nursery school to study the planning, inter relationship of spaces, various areas, circulation pattern, landscape designing , furniture detailing, light, ventilation etc.
10TH	19	Report marking of Nursery school visited in previous week. Discussion and finalization of rough plan
	20	SESSIONAL TEST-2
11TH	21	Preliminary design started with conceptual plan.
	22	Discussion and finalization of rough plan.
12TH	23	Preparation of ground floor plan, site plan.
	24	Completion of plans with furniture layout and rendering
13TH	25	Preparation of elevation, sections and view.
	26	Completion of set of all nursery school drawings with full rendering.
14TH	27	Viva- Voce Exam
	28	Viva- Voce and checking of Drawings
15TH	29	Completion of all pending works / drawings
	30	SESSIONAL TEST-3