

LESSON PLAN

NAME OF THE FACULTY : **SUMEET KUMAR**
DEPARTMENT : **ARCHITECTURAL ASSISTANTSHIP**
SEMESTER : **5th**
SUBJECT : **STRUCTURE SYSTEMS-I**
LESSON PLAN DURATION : **16 WEEKS**
LECTURES PER WEEK : **03**

Week	Theory	
	Lecture Day / Hr.	Topic
1 st	1	Introduction to the subject and its relevance
	2	Need of Structure design to make buildings and structures stable
	3	Importance of structural safety for architects and building occupants
2 nd	4	Force: Definition, effect and characteristics
	5	Representation and types of forces
	6	Force Systems: Coplanar and non-coplanar force systems
3 rd	7	Types of coplanar Forces: Collinear, Concurrent, Parallel, non-concurrent and non-parallel.
	8	Resultant force and components of a force
	9	Laws of forces: Parallelogram, Triangle and polygon Laws of forces
4 th	10	Definition of centre of Gravity and Centroid
	11	Centroid by method of moments of areas for square, rectangular and triangular cross- sections.
	12	
5 th	13	Centroid by method of moments of areas for L-shape, T-shape and I-shape cross- sections.
	14	
	15	Moments of Inertia by methods of moments
6 th	16	Radius of Gyration
	17	Practice of Numericals about Moments of Inertia and Radius of Gyration
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7 th	19	SESSIONAL TEST-1
	20	
	21	
8 th	22	Elasticity and Elastic limit
	23	Definition of stress and strain
	24	Types of stress and strain

9 th	25	Stress strain curve for mild steel
	26	Hook's Law (Theory)
	27	Types of loads- Dead load, Live load, snow, wind and seismic loads as per IS:875
10 th	28	Types of loading: Point load, uniformly distributed load and uniformly varying load.
	29	Types of Supports: Hinged, fixed supports, types of reactions provided by each type of support.
	30	Types of Beams: Simply supported, cantilever, overhanging and continuous beams (description only)
11 th	31	SESSIONAL TEST-2
	32	
	33	
12 th	34	Concept of bending moment and shear force.
	35	Bending moment and shear force diagrams for simply supported, cantilever and over hanging beams subjected to point loads.
	36	
13 th	37	Bending moment and shear force diagrams for simply supported, cantilever and over hanging beams subjected to uniformly distributed loads only.
	38	
	39	
14 th	40	Load-Bearing Structures
	41	Frame Structures
	42	Shell Structures
15 th	43	Truss Structures
	44	Cable and Tensile Structures
	45	Hybrid Structure Systems
16 th	46	SESSIONAL TEST-3
	47	
	48	

LESSON PLAN

NAME OF THE FACULTY : **SUMEET KUMAR & NAVNEET**
DEPARTMENT : **ARCHITECTURAL ASSISTANTSHIP**
SEMESTER : **5th**
SUBJECT : **COMPUTER APPLICATIONS IN ARCHITECTURE-II**
LESSON PLAN DURATION : **16 WEEKS**
PRACTICALS PER WEEK : **06**

Week	Practical	
	Practical Day / Hr.	Topic
1 st	1-6	Introduction to the subject and its relevance Importance of preparing working drawings using AutoCAD
2 nd	7-12	Demonstration of Site Plan, Foundation Plan and Floor Plans, Terrace Plan with rainwater drainage and disposal details
3 rd	13-18	Preparation of Site Plan
4 th	19-24	Preparation of Foundation layout plan & sectional details
5 th	25-30	Preparation of Floor Plans
6 th	31-36	Preparation of Terrace Plan with drainage details
7 th	37-42	SESSIONAL TEST-1
8 th	43-48	Demonstration of Plans, elevations, and sections with furniture and fitting details, Entrance gate, boundary wall, and railing details
9 th	49-54	Preparation of furniture and fitting details
10 th	55-60	Preparation of Entrance gate, boundary wall, and railing details
11 th	61-66	SESSIONAL TEST-2
12 th	67-72	Demonstration of Electrical layout plan
13 th	73-78	Preparation of Electrical layout plan
14 th	79-84	Demonstration of Water supply, sewage & drainage layout plan
15 th	85-90	Preparation of Water supply, sewage & drainage layout plan
16 th	91-96	SESSIONAL TEST-3

LESSON PLAN

NAME OF THE FACULTY : **SUMEET KUMAR & SONIKA**
DEPARTMENT : **ARCHITECTURAL ASSISTANTSHIP**
SEMESTER : **3rd**
SUBJECT : **ARCHITECTURAL DRAWING-III**
LESSON PLAN DURATION : **16 WEEKS**
PRACTICALS PER WEEK : **04**

Week	Practical	
	Practical Day / Hr.	Topic
1 st	1-2	Introduction to basic terminology about Perspective drawing - Picture plane, Vanishing point, Station point, cone of vision
	3-4	Types of Perspective (One-point, Two-point, Bird's eye view, worm's eye view, normal eye view etc.) (vanishing point method)
2 nd	5-6	Drawing of Two-Point Perceptive Views
	7-8	Drawing of One-Point Perceptive Views
3 rd	9-10	Two-Point Perceptive of Geometrical forms such as: Cones, cubes, cylinders, pyramid etc.
	11-12	
4 th	13-14	
	15-16	
5 th	17-18	One-Point Perceptive of Geometrical forms such as: Cones, cubes, cylinders, pyramid etc.
	19-20	
6 th	21-22	
	23-24	
7 th	25-26	SESSIONAL TEST-1
	27-28	
8 th	29-30	2-point perspective of a simple building such as Guard room, kiosk etc.
	31-32	
9 th	33-34	1-point perspective of given plans (drawing room and kitchen)
	35-36	
10 th	37-38	Introduction to Sciography (in Plans and Elevations)
	39-40	Introduction to Rendering using colour pencils, crayons, Colour wash, markers etc.
11 th	41-42	SESSIONAL TEST-2
	43-44	
12 th	45-46	Sciography of Geometrical shapes and forms such as: Planes, cones,

	47-48	cubes, cylinders, pyramid etc.
13th	49-50	Rendering techniques in pen and inks/ Different colour mediums
	51-52	
14th	53-54	Sciography of simple building such as Guard room, kiosk etc.
	55-56	
15th	57-58	Rendering of a given perspective view.
	59-60	
16th	61-61	SESSIONAL TEST-3
	63-64	

LESSON PLAN

NAME OF THE FACULTY : **SUMEET KUMAR & SAURAV**
DEPARTMENT : **ARCHITECTURAL ASSISTANTSHIP**
SEMESTER : **1st**
SUBJECT : **SKETCHING & MODEL MAKING**
LESSON PLAN DURATION : **16 WEEKS**
PRACTICALS PER WEEK : **08**

Week	Practical	
	Practical Day / Hr.	Topic
1 st	1-4	Introduction to the basics of Sketching using different types of pencil
	5-8	Free-hand line exercises of different types of lines (horizontal, vertical, diagonal grid)
2 nd	9-12	Free hand sketching of two-dimensional geometrical figures. (Square, circle, Triangles and Ellipses etc)
	13-16	Composition of two-dimensional geometrical figures
3 rd	17-20	Free hand sketching of three – dimensional geometrical objects. (Cube, Cones, Prisms, Pyramids, Spheres Cylinders etc.)
	21-24	
4 th	25-28	Composition of three – dimensional geometrical objects
	29-32	
5 th	33-36	Introduction & study of anthropometrics
	37-40	
6 th	41-44	In-door sketching of human figures, trees furniture and vehicles etc.
	45-48	Out-door sketching of human figures, trees furniture and vehicles etc.
7 th	49-52	SESSIONAL TEST-1
	53-56	
8 th	57-60	Free hand sketching of small buildings with shade and shadow
	61-64	
9 th	65-68	Free-hand sketching of buildings with trees, human figures, sky, clouds and birds and other land-scape elements, using various mediums like pencil, ink and colours (water colours and pencil colours etc.)
	69-72	
10 th	73-76	
	77-80	
11 th	81-84	SESSIONAL TEST-2
	85-88	
12 th	89-92	Block models of basic geometrical shapes like prisms, pyramids, cubes, cylinders etc. using ivory sheet, Thermo coal, Mount
	93-96	

		Board/Sun Board/Balsa Wood strips
13th	97-100	Composition of various geometrical shapes in different materials
	101-104	
14th	105-108	Brick Masonary Laying of bricks in different bonds
	109-112	
15th	113-115	Painting, Polishing and Completion of pending work (if any)
	116-118	
16th	119-121	SESSIONAL TEST-3
	122-124	