

LESSON PLAN

NAME OF THE FACULTY : SUNIL RAI, KAPIL, KUSUM, PRIYA

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 3rd

SUBJECT : ARCHITECTURE DRAWING – III

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 06

WEEK	LECTURE DAY	PRACTICAL
		TOPIC
1 ST	1.	Introduction to basic terminology (picture plane. Vanishing point. Station point, conc. & vision etc)
	2.	Introduction to types- 1 point. 2 point(vanishing point method)
2 ND	3.	Geometric shapes incorporating all views: cubes, cylinders etc.
	4.	Bird's eye view
3 RD	5.	Normal eye view
	6.	Worms eye view
4 TH	7.	2 point perspective view of an above, below and between pictures.
	8.	2 point perspective of a stepped view.
5 TH	9.	2 point perspective of a stair view.
	10.	1ST SESSIONAL TEST
6 TH	11.	2 point perspective of simple house, dividing point method, perspective grid.
	12.	Introduction to types- 1 point.

7 TH	13.	1 point perspective of a given plan of simple room.
	14.	1 point perspective of a given plan of drawing room.
8 TH	15.	1 point perspective of a given plan of kitchen.
	16.	Introduction to Sciography -in Plans and Elevation.
9 TH	17.	Basic Geometrical shapes (cube, cone, cylinder).
	18.	Basic Geometrical shapes (cone, pyramid etc).
10 TH	19.	Difference between shade and shadow on basic geometric shapes.
	20.	2ND SESSIONAL TEST
11 TH	21.	Shade and shadow of a basic building. (single unit) .
	22.	Shade and shadow of a basic building. (shadows of rounded bodies).
12 TH	23.	Shade and shadow of a basic building. (shadows of circular opening projection & cantilevers).
	24.	Introduction to Rendering.
13 TH	25.	Rendering Techniques. * Intensities. Textures etc. in pen and ink
	26.	Rendering Techniques. Different colour mediums.
14 TH	27.	Stenciling in ink.
	28.	Demo from teacher in different mediums - colour pencils, crayon.
15 TH	29.	Demo from teacher in different mediums - Colourwash. Markers etc.
	30.	3RD SESSIONAL TEST

LESSON PLAN

NAME OF THE FACULTY : SUNIL RAI, SURBHI
DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 3rd
SUBJECT : CLIMATOLOGY
LESSON PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 03

WEEK	LECTURE DAY	THEORY
		TOPIC
1 ST	1.	General Introduction
	2.	Introduction to climatology
	3.	Movement of earth around sun,
2 ND	4.	Elements of climate (Wind, temp, humidity, precipitation, pressure).
	5.	Different Climatic Zones.
	6.	Orientation of building with respect to above mentioned elements of climate
3 RD	7.	Effect of climate on man and shelter.
	8.	Relation of Climate and comfort
	9.	Difference between Climate and comfort
4 TH	10.	Macro-micro climatic effects
	11.	Difference between Macro-micro climatic effects
	12.	Concept of comfort zone

5 TH	13.	Concept of bio-climatic chart
	14.	Relation of comfort zone and bio-climatic chart
	15.	IST SESSIONAL TEST
6 TH	16.	Climatic evaluation by season
	17.	Sun Control and shading devices (without calculations)
	18.	Solar Chart (sun path diagram)
7 TH	19.	Orientation for sun
	20.	Internal and external sun protection devices
	21.	Natural lighting
8 TH	22.	Introduction of Solar Passive Design
	23.	Objectives of Solar Passive Design
	24.	Passive solar heating and cooling
9 TH	25.	Wind control
	26.	Orientation with respect to wind
	27.	Wind protection devices
10 TH	28.	Use of building materials with respect to climate: Concrete, Brick, Glass
	29.	Use of building materials with respect to climate: Plastics, Stone, Insulating material
	30.	2ND SESSIONAL TEST
11 TH	31.	Criteria for site selection
	32.	Environment and Ecology
	33.	Basic elements of ecology
12 TH	34.	Concepts of natural cycles in Eco-system

	35.	Source of noise and air pollution
	36.	Noise and air pollution effects
13 TH	37.	Noise and air pollution controls
	38.	Use of landscape elements
	39.	Use of landscape elements for micro and macro climate control
14 TH	40.	Relation of micro and macro climate control
	41.	Introduction to climate change
	42.	Principle causes of climate change
15 TH	43.	Climate change: effects- methods of mitigating climate change
	44.	Climate change: effects- methods of mitigating climate change
	45.	3RD SESSIONAL TEST

LESSON PLAN

NAME OF THE FACULTY : PREYANK SHORI, NISHA

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 3rd

SUBJECT : HISTORY OF ARCHITECTURE - II

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 03

WEEK	LECTURE DAY	THEORY
		TOPIC
1 ST	1.	Temple Architecture in India.
	2.	Evolution of temple.
	3.	Various parts of Temple Architecture in India.
2 ND	4.	Dravidian style (Southern) General characteristics.
	5.	Planning, motifs of Temple Architecture in India.
	6.	Treatment of different parts of Temple Architecture in India..
3 RD	7.	Construction methods and materials (e.g. Shore temple at Mahabalipuram.)
	8.	Construction methods and materials (e.g. Madurai Temple.)
	9.	Indo Aryan Temple
4 TH	10.	Architectural form of Indo Aryan Temple
	11.	Planning components of Indo Aryan Temple
	12.	Construction methods, materials, motifs (ornamentation) (Lingaraja Temple at Bhubhneswar)
5 TH	13.	Construction methods, materials, motifs (Kandhariya Mahadeo at Khajuraho)
	14.	Construction methods, materials, motifs (ornamentation) (Sun Temple at Modhera)

	15.	IST SESSIONAL TEST
6 TH	16.	Jain Temple
	17.	Jain Temple: General architectural characteristics.
	18.	Jain Temple: construction methods, materials.
7 TH	19.	Jain Temple: ornamentation. (Dilwara Temple at Mount Abu).
	20.	Jain Temple: ornamentation. (Dilwara Temple at Ranakpur Temple).
	21.	Early Christian Architecture
8 TH	22.	Early Christian Architecture: Development of church plan (Basilican)
	23.	Early Christian Architecture: Construction methods
	24.	General Architectural characteristics. (St. Peters. Rome)
9 TH	25.	Byzantine Architecture
	26.	Byzantine Architecture: Centralized plans (St. Sophia Church)
	27.	Byzantine Architecture: construction methods for dom (St. Sophia Church)
10 TH	28.	Romanesque Architecture: General architectural characteristics
	29.	Romanesque Architecture: materials and construction methods. (e.g. pisa group of buildings)
	30.	2ND SESSIONAL TEST
11 TH	31.	Romanesque Architecture: materials and construction methods. (e.g. pisa group of buildings)
	32.	Gothic Architecture
	33.	Gothic Architecture: Main visual of Gothic arch.
12 TH	34.	Gothic Architecture: construction vocabulary of Gothic arch. (eg. Notre Dame Paris Reims Cthedral)
	35.	Renaissance Architecture
	36.	Early renaissance architecture

13 TH	37.	General architectural characteristics (Florence cathedral)
	38.	Late Renaissance architecture
	39.	General characteristics of renaissance architecture
14 TH	40.	Role of Michael Anglo & Palladio (eg. St. Peter's Rome.)
	41.	General characteristics and Role of Michael Anglo & Palladio
	42.	The capital Rome & Villa Capra)
15 TH	43.	Baroque Architecture
	44.	General Characteristics
	45.	3RD SESSIONAL TEST

LESSON PLAN

NAME OF THE FACULTY : PREYANK SHORI ,SOHAN, KUSUM,
 DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP
 SEMESTER : 3rd
 SUBJECT : ARCHITECTURE DESIGN – II
 LESSON PLAN DURATION : 15 WEEKS
 WORK LOAD PER WEEK : 08

WEEK	LECTURE DAY	PRACTICAL
		TOPIC
1 ST	1.	Introduction of a Fuel Station.
	2.	Study of spaces and layout of furniture for various activities in small structure like fuel Station.
2 ND	3.	Drawing plan with various activities of Fuel Station.
	4.	Drawing elevation with various activities of Fuel Station.
3 RD	5.	Introduction of a Milk Bar.
	6.	Study of spaces and layout of furniture for various activities in Milk Bar.
4 TH	7.	Drawing plan draw with various activities of Milk Bar.
	8.	Drawing elevation and view with various activities in Milk Bar.
5 TH	9.	Rendered drawing sheet of Fuel Station and Milk Bar.
	10.	IST SESSIONAL TEST
6 TH	11.	Introduction Study of spaces and layout of furniture for various activities in Florist Kiosk.
	12.	Drawing plan with various activities of Florist Kiosk.
7 TH	13.	Drawing elevation with various activities in Florist Kiosk.
	14.	Introduction and Study of spaces and layout of furniture for various activities in Guard House.

8 TH	15.	Drawing site plan and plan with various activities of Guard House
	16.	Drawing elevation and section with various activities of Guard House
9 TH	17.	Drawing view with various activities of Guard House
	18.	Rendered drawing with various activities in Guard House
10 TH	19.	Introduction to Structure Systems.
	20.	2ND SESSIONAL TEST
11 TH	21.	Drawing site plan of a weekend cottage (single story structure)
	22.	Drawing plan of a weekend cottage (single story structure)
12 TH	23.	Design the Elevation, Section of a weekend cottage
	24.	Design the Elevation, Section of a weekend cottage
13 TH	25.	Design the isometric view of a weekend cottage.
	26.	Time Problems: Plan showing furniture layout through a given mono-functional space such as a Café.
14 TH	27.	Section detail of a given mono-functional space of a Café.
	28.	Time Problems: Plan showing furniture layout through a given mono-functional space such as a Nursery classroom etc.
15 TH	29.	Section detail of a given mono-functional space of a Nursery classroom etc. Parking lot.
	30.	3RD SESSIONAL TEST

LESSON PLAN

NAME OF THE FACULTY : PARDIP KUMAR MITTAL, NISHA, SOHAN

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 3rd

SUBJECT : BUILDING CONSTRUCTION - II

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 06

WEEK	LECTURE DAY	PRACTICAL
		TOPIC
1 ST	1.	Flooring
	2.	Types of flooring and constituents (ground and upper flooring)
2 ND	3.	Different types of floor finishes
	4.	Roof and roof coverings
3 RD	5.	Pitched roof and terms related to roof
	6.	Types of timber roofs
4 TH	7.	Drawing details of fixing and layout of AC, GI sheets, slates, tiles and locally available materials.
	8.	Lean to roof
5 TH	9.	Double collar roof
	10.	IST SESSIONAL TEST
6 TH	11.	King post and queen post trusses
	12.	Drawing of king post trusses along with their constructional details
7 TH	13.	Drawing of queen post trusses along with their constructional details
	14.	Staircases and ramps
	15.	Definition and types of staircases as per nomenclature

8 TH	16.	Drawing a dog leg wooden staircase
9 TH	17.	Staircases of different materials
	18.	Relation between different components
10 TH	19.	Drawing of a Steel spiral staircase
	20.	2ND SESSIONAL TEST
11 TH	21.	RCC staircase cast-in-situ and also precast
	22.	Definitions, purpose, slopes, types of ramps and moving walks
12 TH	23.	Expansion joints: Preparation of drawing file
	24.	Expansion joint in walls and roof, framed structure
13 TH	25.	Form work and steel work
	26.	Definitions of form work
14 TH	27.	Explain the detail of shuttering and centring
	28.	Form work for different structural members
15 TH	29.	Bending of bars, formation of hooks and cranks
	30.	3RD SESSIONAL TEST

LESSON PLAN

NAME OF THE FACULTY : RAJESH , KULDEEP, PRIYA, NISHA,

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 3rd

SUBJECT : SURVEYING

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 02(T) +03(P)=05

WEEK	LECTURE DAY	THEORY & PRACTICAL
		TOPIC
1 ST	1.	Introduction:
	2.	Basic principles of surveying and types of surveying
	3.	Concept of surveying
2 ND	4.	Purpose of surveying
	5.	Measurements-linear and angular, units of measurements
	6.	Instruments used for taking these measurement
3 RD	7.	Classification of survey based on instruments
	8.	System of conversion of land measurements from traditional revenue Maps/records to MKS.
	9.	Chain surveying: Purpose of chain surveying, Principles of chain surveying
4 TH	10.	.Practical Exercises of chain surveying
	11.	Practical Exercises of chain surveying
	12.	Errors in chain surveying
5 TH	13.	Corrections to chain length.
	14.	Simple related problems.
	15.	IST SESSIONAL TEST

6 TH	16.	Compass surveying: Purpose of compass surveying, Construction and working of prismatic compass,
	17.	Use of prismatic compass: Setting and taking observations
	18.	Practical Exercises of compass surveying
7 TH	19.	Use of prismatic compass: Setting and taking observations
	20.	Concept of: (a) Meridian - Magnetic and true b) Bearing - Magnetic, True and Arbitrary
	21.	Practical Exercises of compass surveying
8 TH	22.	(c) Whole circle bearing and reduced bearing (d) Fore and back bearing
	23.	Local Attraction-causes, Detection & precautions against local attraction
	24.	Practical Exercises of compass surveying
9 TH	25.	Levelling: Purpose and concept of levelling, reduced level and bench marks
	26.	Construction of Dumpy level Concepts of line of collimation, axis of the bubble tube, axis of the telescope and vertical axis.
	27.	Practical Exercises of levelling.
10 TH	28.	Temporary adjustment: setting up and leveling
	29.	Concept of back sight, foresight, intermediate sight, station change point, to determine reduced levels
	30.	2ND SESSIONAL TEST
11 TH	31.	Level book and reduction of levels by
	32.	Height of instrument method and Rise and fall method Arithmetic checks, problems on reduction of levels
	33.	Practical Exercises of levelling.
12 TH	34.	Computations of Areas of regular figure and irregular figure. Simpson rule
	35.	Plane Table Surveying: Purpose of plane table surveying, equipment used in plane table survey: (a) Plane table and its accessories
	36.	Practical Exercises of Plane Table Surveying.

13 TH	37.	Setting of a plane table:(a) Centering (b) Leveling (c) Orientation
	38.	Methods of plane table surveying (a) Radiation, (b) Intersection (c) Traversing Two Point Problem
	39.	Practical Exercises of Plane Table Surveying.
14 TH	40.	Contouring: Contouring: Concept of contouring.
	41.	Contouring: Concept of contouring. Contour interval and horizontal equivalent
	42.	Practical Exercises of Contouring.
15 TH	43.	Instruments: Demo and uses of : Theodolite
	44.	Use of Modern Surveying equipment (Auto Level, Micro-optic Theodolite, Total station.
	45.	3RD SESSIONAL TEST

LESSON PLAN

NAME OF THE FACULTY : PARDIP KUMAR MITTAL, SURBHI

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 3rd

SUBJECT : BUILDING SERVICES

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 04

WEEK	LECTURE DAY	THEORY
		TOPIC
1 ST	1.	Water Supply Water as a natural resource
	2.	Water as a natural resource
	3.	Public health significance of water quality,
	4.	Demand of water for domestic, commercial, industrial and public utility purposes as per BIS standards.
2 ND	5.	Per capita demand
	6.	Leakage and wastage of water and its preventive measures
	7.	System of water supply – continuous, intermittent.
	8.	Advantages and disadvantages of System of water supply.
3 RD	9.	Storage and Distribution of Water:
	10.	Different methods of water distribution boosting water, gravity and pressure distribution by storage tanks of individual buildings
	11.	Hot water supply for buildings including solar water heating.
	12.	Service connections, types and sizes of pipes, water supply fixture and Installations Concept of Rain water harvesting
	13.	Drainage : Principles of drainage, surface drainage

4 TH	14.	Combined and separate system of Drainage.
	15.	. Drainage: shape and sizes of drains and sewers, storm water over flow Chambers.
	16.	Drainage: methods of lying
5 TH	17.	Construction of sewers
	18.	House drainage: traps – shapes, sizes, types, materials and function.
	19.	IST SESSIONAL TEST
	20.	Inspection chambers – sizes, and construction
6 TH	21.	Ventilation of house drainage – anti siphonage and vent pipes.
	22.	Single stack and double stack system
	23.	Functions and working of sinks, wash basins,, water closets, flushing cisterns, urinals, – sizes and types
	24.	Septic tanks
7 TH	25.	Seepage and soak pits
	26.	Simple exercises on layout plans for toilet and kitchens
	27.	Simple exercises on layout plans for public and residential buildings including the placement.
	28.	Distances and fixing details.
8 TH	29.	Sound Insulation Behaviour of sound propagation,
	30.	Acoustics in building, acoustical defects such as echo, reverberation, sound foci,
	31.	methods of correction, special requirements in Bldgs like auditorium, conference halls, studios etc
	32.	Acoustical materials and their uses in various buildings Simple exercises on sound insulation

9 TH	33.	Lighting and Electrical Fittings , Electrical distribution-conduits for wiring.
	34.	Types of wiring, types of switches. Various terms used in lighting-illumination, Lux, lumen etc.distribution panels, MCB'S, ELCBS
	35.	Methods of lighting, quality of light of mercury lamps, incandescent types of lamps, fluorescent tubes
	36.	CFL and other lamps, thumb rules for calculation of illuminating level, various systems of wiring and their sustainability
10 TH	37.	Symbolic representation of electrical fittings for different work areas in residential building (e.g. bed room, living room, kitchen, study and toilet)
	38.	Preparation of electrical layout of a simple residential building
	39.	Precautions to avoid electrical accidents
	40.	2ND SESSIONAL TEST
11 TH	41.	Heat, Ventilation and Air Conditioning (HVAC)
	42.	Behaviour of heat propagation, thermal insulating materials and their coefficient of thermal conductivity
	43.	General methods of thermal insulation. Thermal insulation of roofs, exposed walls
	44.	Ventilation: Definition and necessity
12 TH	45.	System of ventilation (Mechanical)
	46.	Principles of air conditioning, Air cooling
	47.	Different types of Air conditioning systems and their use in buildings
	48.	Essentials of air-conditioning system
13 TH	49.	Vertical Transportation Systems
	50.	Classification and types of lift, sizes, provision and installation
	51.	Escalators, sizes, safety norms to be adopted
	52.	Fire Fighting Services , Causes of fire in Buildings
	53.	classification of building materials according to fire rating; fire alarm systems

14 TH	54.	introduction to fire fighting system
	55.	precaution and controlling devices (fire panels, door and windows automation, fire hydrants and sprinklers)
	56.	fire escape elements (staircases, ramps,)
15 TH	57.	Provisions in building from fire safety angle as per BIS; heat detectors, and fire detection system.
	58.	Integration of lighting, air-conditioning
	59.	Acoustics and other services/systems in buildings.
	60.	3RD SESSIONAL TEST