LESSON PLAN

NAME OF THE FACULTY : SURBHI

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 2ND

SUBJECT : THEORY OF DESIGN

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 04 (L)

Week	Theory	
	Topic	
1ST		Primary Elements of Design
2nd		Definition, examples and applications of the following: a) Point b) Line
3RD		Definition, examples and applications of the following: c) Figure d) Plane e) Volume
4TH		Design Elements Definition, examples and applications of the following: a) Line b) Form
5TH		Design Elements Definition, examples and applications of the following: space, color and mass
6TH		**SESSIONAL TEST-1**
7TH		Principles of Design
8TH		Definition, examples and applications of the following: harmony, rhythm, balance, texture, contrast, monotony
9TH		Definition, examples and applications of the following: unity, scale and proportion
10TH		Relationship of form and functions
11TH		**SESSIONAL TEST-2**
12TH		Relationship of Aesthetics and utility
13TH		Colour chart showing primary, secondary and tertiary colours, Colour chart showing primary, secondary and tertiary colours, Warm and cool colours
14TH		Receding and Advancing colours, Psychological effects of colours, Effects of colours on building (interior and exterior)
15TH		**SESSIONAL TEST-3**

LESSON PLAN

NAME OF THE FACULTY : RAJESH KUMAR
DISIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 2nd
SUBJECT : ARCHITECTURAL DRAWING -II
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 06

Week	Practical	
	Practical Day	**Topic**
1ST	**1**	Introduction about the subject.
	2	**Reviewing orthographic projections(1 sheet):**
	3	Reviewing orthographic projections (plans)
2ND	**4**	Reviewing orthographic projections (line projections)
	5	Reviewing orthographic projections (solids) (1 sheet)
	6	**Section of Solids(4 sheets):** Simple geometrical shapes e.g. cube: Elementary building sections highlighting line intensities for sectional components (Example: parapet,chajjas in section) (1 sheet)
3RD	**7**	Simple geometrical shapes e.g. cube: Elementary building sections highlighting line intensities for elevational components (Example: parapet,chajjas in section and elevation behind) (1 sheet)
	8	Simple geometrical shapes e.g. cube: Elementary building sections highlighting line intensities for sectional and elevational components(Example: parapet,chajjas in section and elevation behind) (1 sheet)
	9	Simple geometrical shapes e.g. cube: Elementary building sections highlighting line intensities for sectional and elevational components(Example: parapet,chajjas in section and elevation behind) (1 sheet)
4TH	**10**	**Development of surface of various geometrical shapes (1 sheets):** (Development with an aim to calculate areas)
	11	Development of surface (Development with an aim to calculate areas)
	12	Development of surface (Development with an aim to calculate areas)

5TH	**13**	Development of surface (Development with an aim to calculate areas)
	14	Development of surface (Development with an aim to calculate areas)
	15	**SESSIONAL TEST- 1**
6TH	**16**	**Isometric Viewsof various geometrical shapes (3 sheets):** Conversion of 2D geometrical shapes into 3D isometric views
	17	Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o) to realize the potential of each from simple to complex solid to basic building
	18	Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o) to realize the potential of each from simple to complex solid to basic building
7TH	**19**	Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o) to realize the potential of each from simple to complex solid to basic building
	20	Conversion of 2D geometrical shapes into 3D isometric views (30o – 60o) to realize the potential of each from simple to complex solid to basic building
	21	Conversion of 2D geometrical shapes into 3D isometric views (30o – 60o) to realize the potential of each from simple to complex solid to basic building
8TH	**22**	Conversion of 2D geometrical shapes into 3D isometric views (30o – 60o) to realize the potential of each from simple to complex solid to basic building
	23	Conversion of 2D geometrical shapes into 3D isometric views (30o – 60o) to realize the potential of each from simple to complex solid to basic building
	24	Isometric Views (3 sheets) Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o), 30o –60o) to realize the potential of each from simple to complex solid to basic building forms
9TH	**25**	Isometric Views (3 sheets) Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o), 30o –60o) to realize the potential of each from simple to complex solid to basic building forms
	26	Isometric Views (3 sheets)

		Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o), 30o –60o) to realize the potential of each from simple to complex solid to basic building forms
	27	Isometric Views (3 sheets) Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o), 30o –60o) to realize the potential of each from simple to complex solid to basic building forms
10TH	**28**	Isometric Views (3 sheets) Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o), 30o –60o) to realize the potential of each from simple to complex solid to basic building forms
	29	Isometric Views (3 sheets) Conversion of 2D geometrical shapes into 3D isometric views (30o – 30o), 30o –60o) to realize the potential of each from simple to complex solid to basic building forms
	30	**SESSIONAL TEST- 2**
11TH	**31**	**Axonometric Views(5 sheets):** Conversion of 2D geometrical shapes into 3D axonometric views at different angles (45o – 45o) to realize the potential of each from simple to complex solid to basic building forms
	32	Conversion of 2D geometrical shapes into 3D axonometric views at different angles (45o – 45o) to realize the potential of each from simple to complex solid to basic building forms
	33	Conversion of 2D geometrical shapes into 3D axonometric views at different angles (45o – 45o) to realize the potential of each from simple to complex solid to basic building forms
12TH	**34**	Conversion of 2D geometrical shapes into 3D axonometric views at different angles (45o – 45o) to realize the potential of each from simple to complex solid to basic building forms
	35	Conversion of 2D geometrical shapes into 3D axonometric views at different angles (45o – 45o) to realize the potential of each from simple to complex solid to basic building forms
	36	Conversion of 2D geometrical shapes into 3D axonometric views at different angles (45o – 45o) to realize the potential of each from simple to complex solid to basic building forms
13TH	**37**	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)

	38	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)
	39	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)
	40	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)
14TH	**41**	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)
	42	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)
	43	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)
15TH	**44**	Isometric/axonometric use of any building form, from a given base plan – to be developed as per the student's imagination of the exterior/interior components (with roads, landscape elements)
	45	**SESSIONAL TEST- 3**

LESSON PLAN

NAME OF THE FACULTY : PARDIP K. MITTAL
DISIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 2nd
SUBJECT : BUILDING MATERIALS AND CONTRUCTION – I
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 03(T) + 04 (P)

Week	Theory	
	Lecture Day	Topic
1ST		Introduction toBUILDING MATERIALS
		BuildingStones
		Classificationofrocks
		PracticalDrawing of various types of stone masonry
2ND		Characteristicsandutilityofgoodbuildingstones
		Testing--Waterabsorption,Compressivestrengthand Durabilitytest
		Naturalbedofstones,itseffectiveandcorrectplacementinbuilding
		PracticalDrawing of various types of stone masonry
3RD		Commonbuildingstones
		Granite,BasaltandTrap,Sandstone,Limestone,Slate,Marble
		Theircomposition,Properties,usesandtheirorigin
		PracticalSketches of different type of stone facing
4TH		TheirtransportationandstorageTechniques
		Selectionofstonesfordifferentbuildingworks
		Characteristicsandclassificationofstonemasonry
		PracticalSketches of different type of stone facing
5TH		AdvantagesandDisadvantagesofdifferenttypesofstones
		Suitabilitytodifferentelementsofbuilding

		SESSIONAL-I
		Practical Drawing of different shapes and sizes of bricks
6TH		Bricks
		Sizes,classificationandCompositionofbricks
		Propertiesandusesoffirstclassandsecondclassbricks,clayandburntbricks
		Practical Drawing of different shapes and sizes of bricks
7TH		Characteristicsofagoodbrickincludingsizeandweightofastandardbrick
		Testforburntclaybricks--Compressivestrength,Waterabsorption&efflorescence
		Firebricks,itsproperties
		Practical Drawing of different shapes and sizes of bricks
8TH		Usesandavailability.
		Stretcherandheadercoursesinvariouswallthickness,
		T-junctionsandCross-junctionin½,1and1½thickbrickwall
		Practical Drawings of different bonds in different wall thickness, T-junctions, cross junction
9TH		Differenttypesofbonds-English,FlemishandRatTrapBondindifferentwallwidth
		AdvantagesandDisadvantagesofdifferentBonds
		AdvantagesandDisadvantagesofdifferenttypesofbricksandtheirsuitabilitytodiff erentelementsofbuilding
		Practical Foundation detail for brick pier and column foundation
10TH		Foundation Differenttypesoffoundations(normalandeccentric)
		Theiradvantageofoneoverother.
		SESSIONAL-II

		Practical Drawing of spread foundation, toe wall and verandah steps foundation
11TH		Briefknowledgeofdifferenttypesoffoundationsinbasements
		Foundationsforcolumnsandverandahsteps
		OpeningsinWalls
		Practical Reinforced brick work and jallies
12TH		Classificationofarchesandlintelsasperfinish,shapeandmaterial
		Brick jalliesandreinforcement
		Brick jalliesin½and1thickbrick wallinEnglishandFlemishBond
		Practical Drawings of lintels and arches of various materials and various wall thickness
13TH		SESSIONAL-II
		DampProofCourse
		ExplanationofDPCandreasonsforitsuse.
		Practical Demonstration Showing of Damp proof course in a horizontal and vertical brick wall
14TH		Sourcesofdampness
		Effectsofdampness
		Classificationasperhardnessofmaterial
		Practical-7 Demonstration Showing of Damp proof course in a horizontal and vertical brick wall.
15TH		BISstipulationsofdampproofing
		Practical-9 Application of DPC on spread foundation and basements
		TreatmentofBuildingcomponentforeffectivedampproofing
		SESSIONAL III

LESSON PLAN

NAME OF THE FACULTY : GURDEEP MALIK

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 2nd Sem

SUBJECT : SURVEYING

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 03(T) +04(P) =07

WEEK	LECTUE DAY	THEORY & PRACTICAL TOPIC
1ST	1.	**Introduction:**
	2.	Basic principles of surveying and types of surveying
	3.	Concept of surveying
2nd	4.	Purpose of surveying
	5.	Measurements-linear and angular, units of measurements
	6.	Instruments used for taking these measurement
3rd	7.	Classification of survey based on instruments
	8.	Compass surveying: Purpose of compass surveying,
	9.	Construction andworking of prismatic compass
	10.	Use of prismatic compass: Setting and taking observations

4th	11.	Practical Exercises of compass surveying
	12.	Concept of: (a) Meridian – Magnetic and true
5th	13.	b) Bearing - Magnetic, Trueand Arbitrary
	14.	Practical Exercises of compass surveying
	15.	SESSIONAL TEST-I

6th	16.	Whole circle bearing and reduced bearing Fore and back bearing
	17.	Local Attraction-causes, Detection & precautions against local attraction
	18.	Levelling: Purpose and concept of leveling, horizontal & vertical surface, datum, reduced level and bench marks
7th	19.	Various parts of Dumpy level & uses of dumpy level
	20.	Concepts of line of collimation, axis of the bubble tube, axis of thetelescope and vertical axis.
	21.	Auto level: advantage and disadvantage, use of auto level
8th	22.	Practical Exercises of leveling.
	23.	Temporary adjustment: permanent adjustment of dumpy level by two peg method.
	24.	Concept of back sight, foresight, intermediate sight.
9th	25.	Station change point, determines reduced levels.
	26.	Level book and reduction of levels by - Height of instrument method
	27.	Level book and reduction of levels by -Rise and fall method
10th	28.	Level book and reduction of levels by - Height of instrument method, Rise and fall method
	29.	Practical Exercises of leveling.
	30.	SESSIONAL TEST-II

11th	31.	Plane Table Surveying: Purpose of plane table surveying.
	32.	Equipment used in plane table survey
	33.	Plane table Surveying and its accessories
12th	34.	Equipment used in plane table survey
	35.	Plane table Surveying and its accessories

	36.	Setting of a plane table:(a) Centering (b) Leveling (c) Orientation
13th	37.	. Methods of plane table surveying Two Point Problem
	38.	(a) Radiation, (b) Intersection
	39.	(c)Traversing (d) Resection
14th	40.	Practical Exercises of Plane Table Surveying
	41.	Introduction of Digital Instruments:
	42.	Auto level and theodolite
15th	43.	Total station and EDM instruments
	44.	GPS and GI System
	45.	SESSIONAL TEST-III

LESSON PLAN

NAME OF THE FACULTY : RAJESH KUMAR

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 2nd Sem

SUBJECT : FUNDAMENTALS OF IT

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 02(T) +04(P) =06

WEEK	LECTURE DAY	THEORY & PRACTICAL TOPIC
1st	1.	Basic of Computer Breif History of développent of computers and its définitions
	2.	Block diagram of a computer, , Hardware, Software, Booting: Cold and Hot Booting
	3.	Interaction between the CPUand Memory with Input/output devices, Function of CPU and major functional parts of CPU.
2nd	4.	Memory, Bit, Nibble, Byte, KB, MB, GB, TB, PB.
	5.	Functions of memory, Use of storage devicesin a Computer,
	6.	List types of memory used in a Computer.
3rd	7.	Importance of cache memory, CPU speed and CPU word length
	8.	Practical Exercises of Browser, Digital India portals.
	9.	Basic Internet Skills Understanding browser, Introduction to WWW, efficient use of search engines.

4th	10.	Awareness aboutDigital India portals (state and national portals) and college portals.
	11.	Advantages of Email, Various email service providers.
	12.	Creation of email id, sending and receiving emails, attaching documents with email and drive
5th	13.	Effective use of Gmail, G-Drive, Google Calendar, Google Sites, Google Sheets. Online mode ofcommunication using Google Meet & WebEx.
	14.	Practical Exercises of Read Wikipedia pages, Using Administrative Tools-Control Panel setting
	15.	SESSIONAL TEST-I
6th	16.	Basic Logic building Introduction to Programming, Steps involved in problem solving,
	17.	Definition of Flowchart, Steps involved in algorithm
	18.	Flowchart, symbols used in flowcharts, algorithms for simple problems, flowcharts for simple problems.
7th	19.	Practice logic building using flowchart/algorithms
	20.	Practical Exercises of printer, scanner, MS-Office
	21.	Office Tools Office Tools like Libre Office/Open Office/MSOffice.
8th	22.	Open Office Writer – Typesetting Text and Basic Formatting
	23.	Inserting Images, Hyperlinks,Bookmarks,.
	24.	Tables and Table Properties in Writer

9th	25.	Bookmarks, Tables and Table Properties in Writer
	26.	Introducing Libre Office/Open Office *Calc*,
	27.	Working with Cells, Sheets, data, tables.
	28.	Using formula and functions, using charts and graphics.
10th	29.	Practical Exercises of Conversion Software(PDf to World & World to PPT), Mobile Applications (Installation & Setting)
	30.	SESSIONAL TEST-II
11th	31.	Open Office Impress – Creating and Viewing Presentations.
	32.	Inserting Pictures and Tables,
	33.	SlideMaster and Slide Design.
12th	34.	Custom Animation
	35.	Use of Social Media
	36.	Introduction to Digital Marketing
13th	37.	Practical Exercises of Creating email id, Using Google drive, calendar
	38.	Characteristics of Digital Marketing
	39.	Tools for Digital Marketing
14th	40.	Effective use of Social Media like LinkedIn
	41.	Google+,Facebook, Twitter, etc
	42.	Features of Social media.
	43.	Practical Exercises of Create Flow chart and Algorithm

15th	44.	Advantages and Disadvantages of Social Media.
	45.	SESSIONAL TEST-III

LESSON PLAN

NAME OF THE FACULTY : DIVYA RATHI

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 2ND

SUBJECT : ENVIRONMENTAL STUDIES AND DISASTER MANAGEMENT

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 02

Week	THEORY	
	LECTURE Day	Topic
1ST	1	Introduction of Environmental Studies
	2	Basics of ecology, eco system- concept, and sustainable development, Sources
2nd	3	Advantages, disadvantages of renewable and nonrenewable energy.
	4	Rain water harvesting, Deforestation – its effects & control measures
3rd	5	Air and Noise Pollution
	6	Air Pollution: Source of air pollution
4th	7	Effect of air pollution on human health, economy,
	8	Air pollution control methods:
5th	9	Noise Pollution Source of noise pollution, Unit of noise,
	10	Effect of noise pollution, Acceptable noise level, Effect of noise pollution, Acceptable noise level,
6th	11	Different method of minimizing noise pollution.
	12	SESSIONAL-I

7th	13	Water and Soil Pollution**,** Impurities in water, Cause of water pollution, Source of water pollution.
	14	Effect of water pollution on human health, Concept of DO, BOD, COD
8TH	15	Prevention of water pollution- Water treatment processes
	16	Sewage treatment. Water quality standard, Soil Pollution Sources of soil pollution,
9th	17	Effects and Control of soil pollution
	18	Types of Solid waste- House hold, Industrial, Agricultural, Biomedical, Disposal of solid waste, Solid waste management E-waste, E – waste management
10th	19	Impact of Energy Usage on Environment
	20	SESSIONAL II
11th	21	Global Warming, Green House Effect, Depletion of Ozone Layer, Acid Rain. Eco-friendly MATERIAL
	22	Recycling of Material, Concept of Green Buildings, Concept of Carbon Credit & Carbon footprint.
12th	23	Disaster Management Different Types of Disaster
	24	Natural Disaster: such as Flood, Cyclone, Earthquakes and Landslides etc.
13th	25	Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters
	26	Accidents (Air, Sea Rail & Road), Structural failures(Building and Bridge), War & Terrorism etc.
14th	27	Disaster Preparedness:
	28	Disaster Preparedness Plan Prediction, Early Warnings and Safety Measures of Disaster
15th	29	Psychological response and Management (Trauma, Stress, Rumour and Panic)
		SESSIONAL III

LESSON PLAN

NAME OF THE FACULTY : **GURDEEP MALIK**

DISIPLINE : **ARCHITECTURAL ASSISTANTSHIP**

SEMESTER : **4TH SEM**

SUBJECT : **BUILDING MATERIALS AND CONTRUCTION TECHNOLOGY–III**

LESSION PLAN DURATION : **15 WEEKS**

WORK LOAD PER WEEK : **02(T) + 04 (P)**

Week	Theory /Practical	
	Lecture Day	**Topic**
1ST	**Theory**	**Plastics :**
		Natural (Shellac, casein and cellulose) and synthetic plastics Thermosetting and thermoplastics and their uses ,
		Plastics used as materials in building, industry e.g. flooring, roofing, wall panelling, pipes, doors etc
	Practical	**Flooring :**
		Types of flooring and constituents (ground and upper flooring)
		Different types of floor finishes (Sheet no 1)
2ND	**Theory**	**Plastics :**
		Plastics used as materials in building, industry e.g. wall panelling, pipes, doors etc
		Polymers – carbon fiber, polymer concrete, polycarbonate sheet etc.
	Practical	**Flooring :**
		Types of flooring and constituents (ground and upper flooring)
		Different types of floor finishes (Sheet no 2)
3RD	**Theory**	**Alloys and Metals :**
		Ferrous and non-ferrous metals (Aluminum, copper, lead, zinc, tin etc) their uses and applications in buildings
	Practical	**Door And Window:**

		Drawing of aluminum door showing fixing, beading, hardware's etc. Drawing of sliding doors (Sheet no 3)
4TH	**Theory**	**Paints and Varnishes**, Drying Oil, Pigment, Drier, Adhesives Synthetic resins (their trade names, uses of synthetic resins, costs, application in various situations as compared to traditional materials and methods .
	Practical	**Door And Window :** Drawing of aluminum window showing fixing, beading, hardware's etc Drawing of revolving doors (Sheet no 4
5TH	**Theory**	Thinner, Adhesives Synthetic resins (their trade names, uses of synthetic resins, costs, application in various situations as compared to traditional materials and methods .
	Practical	**SESSIONAL Ist**
6TH	**Theory**	Packing sizes, rates, brands, performance guarantees as given by the manufacturer and collection of catalogues and their covering capacity, uses and availability of paints and Varnishes .
		Water based paints, Distempers, Oil based paints and emulsions.
	Practical	Drawing a dog leg wooden staircase.(Sheet no 5)
7TH	**Theory**	Packing sizes, rates, brands, performance guarantees as given by the manufacturer and collection of catalogues and their covering capacity, uses and availability of paints and Varnishes . Cement paints ,Acrylic emulsions, Melamine finishes
	Practical	
		Drawing a dog leg wooden staircase.(Sheet no 5)
8TH	**Theory**	Packing sizes, rates, brands, performance guarantees as given by the manufacturer and collection of catalogues and their covering capacity, uses and availability of paints and varnishes.
		Varnishes, Spirit polish, wax polish,Lacquers, Stucco, Tar and Bitumen paint ,Glazing putty
	Practical	Steel spiral staircase. (Sheet no 6)

9TH	**Theory**	Floor Finishes (Laying sizes, availability, popular brand names, quality of polish, uses and current market rates)
		Terrazzo Tiles and Flooring
		Glazed terracotta and ceramic tiles
		Cement Concrete Tile
	Practical	RCC staircase cast-in-situ and also precast. (Sheet no 7)
10TH	**Theory**	Floor Finishes (Laying sizes, availability, popular brand names, quality of polish, uses and current market rates)
		Marble stone, Kota stone, slate, red sand stone, granite – their tiles and slabs
	Practical	**SESSIONAL-II**
11TH		Floor Finishes (Laying sizes, availability, popular brand names, quality of polish, uses and current market rates)
	Theory	Parquet (Wooden)
		Linoleum tiles and rolls
	Practical	Expansion joint in walls and roof, framed structure (Sheet no 8)
12TH	**Theory**	Floor Finishes (Laying sizes, availability, popular brand names, quality of polish, uses and current market rates)
		PVC
		Heavy duty flooring for industrial building
	Practical	Expansion joint in walls and roof, framed structure (Sheet no 8)
13TH	**Theory**	Exterior & Interior Wall Finishes (along with application method)
		▪ Wall board homogeneous
		▪ Laminated fiber boards – types
		▪ Plastic wall tiles – tiles available

	Practical	Expansion joint in walls and roof, framed structure (Sheet no 9)
14TH	**Theory**	Exterior & Interior Wall Finishes (along with application method)
		Wall papers ,Cork sheets and tiles ,Thermocol
	Practical	Expansion joint in walls and roof, framed structure (Sheet no 9)
15TH	**Theory**	Exterior & Interior Wall Finishes (along with application method)
		▪ Foam rubber tiles and rolls
		▪ Textured paint finishes
		▪ Exterior wall finishes
	Practical	SESSIONAL III

LESSON PLAN

NAME OF THE FACULTY : DIVYA
DISIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 4th
SUBJECT : MINOR PROJECT
PROFESSIONAL TRAINING
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 6

WEEK	PRACTICAL	
		TOPIC
1ST		Introduction about various topics. Group Formation.
2nd		Library study. Visit to Library
3RD		Collect effective data. Consolidate report of library study. Checking of library study of individual group.
4TH		Site visit. Allotment of letter for Site visit.
5TH		Site visit report submission. Report checking.
6TH		Define Concept
7TH		Final Report submission
8TH		Rough floor plan and Site Plan Final floor plan
9TH		Rough elevation submission Final elevation submission
10TH		Final Floor Plans
11TH		Elevations & Sections
12TH		Working Drawings
13TH		Presentation Drawings
14TH		Model preparation
15TH		Model submission

LESSON PLAN

NAME OF THE FACULTY : Gurdeep Malik

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 4th

SUBJECT : MOOCs -Computer Applications in Business

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 02

Week	THEORY	
	LECTURE Day	**Topic**
1ST	1	Overview of Computer Applications in Business • Definition and scope • Importance in modern business • Types of software applications used in business
	2	Fundamentals of Information Technology in Business • Basic IT concepts • Hardware, software, and networks in business • The role of IT in business decision-making
2nd	3	Types of Business Software • Proprietary vs open-source software • Off-the-shelf vs custom-built solutions
	4	IT Infrastructure and Business Needs • Network architecture • Cloud computing and SaaS (Software as a Service)
3rd	5	Introduction to ERP Systems • What is ERP? • Key features of ERP systems • Benefits and challenges of ERP implementation
	6	• ERP System Applications o Modules in ERP: finance, HR, supply chain, production o Case study: SAP and Oracle ERP systems
4th	7	Overview of CRM Systems • Purpose and importance of CRM

		• Key CRM functions: sales, marketing, and customer service
	8	Popular CRM Tools • Salesforce, HubSpot, and Zoho CRM • Implementation and integration of CRM systems in business
5th	9	introduction to Accounting Software • Overview of accounting principles • Key features of accounting software (invoicing, tax calculation, budgeting)
	10	Practical Use of Financial Management Tools • Examples: QuickBooks, Xero, FreshBooks • Managing financial records and generating reports
6th	11	Project Management Software Overview • Key features: task assignment, timelines, and collaboration • Importance in business operations
	12	SESSIONAL-I
7th	13	Introduction to E-Commerce and Online Business • Types of e-commerce: B2B, B2C, C2C • The role of e-commerce in modern business
	14	setting Up an E-Commerce Store • Popular e-commerce platforms: Shopify, WooCommerce, Magento • Payment gateways and security considerations
8TH	15	Introduction to Digital Marketing Tools • Search Engine Optimization (SEO), Pay-per-click (PPC) advertising • Social media marketing tools
	16	Marketing Automation Software • Tools: Mailchimp, Marketo, Hootsuite • Campaign management and lead generation automation
9th	17	Communication Tools in Business • Instant messaging, video conferencing, and email management • Examples: Microsoft Teams, Zoom, Slack
	18	Collaboration and File Sharing Tools • Google Drive, Dropbox, Microsoft OneDrive • Collaboration and document sharing best practices
10th	19	introduction to Data Analytics in Business • Importance of data in decision-making

		• Types of business data: structured and unstructured
	20	SESSIONAL II
11th	21	Supply Chain Management Software • Key functions: procurement, logistics, inventory tracking • Case studies of successful SCM software implementation
	22	Overview of HR Software • Key features: payroll, employee records, recruitment • Importance of HR software in business operations
12th	23	Popular HR Management Tools How HR software supports employee engagement and performance management
	24	Introduction to Cloud Computing
13th	25	Cloud Business Applications • Examples: Google Workspace, Microsoft 365, Salesforce in the Cloud • Cloud integration with business processes
	26	Cybersecurity Basics for Businesses • Importance of data protection and privacy • Common threats: hacking, malware, phishing
14th	27	emerging Technologies in Business Applications • Artificial Intelligence, Blockchain, and Automation
	28	How AI and machine learning are reshaping business
15th	29	Discussion on how businesses can adopt and benefit from various computer applications
	30	SESSIONAL III

LESSON PLAN

NAME OF THE FACULTY : DIVYA RATHI

DISCIPLINE : ARCH. ASSISTANTSHIP

SEMESTER : 4th

SUBJECT : HISTORY OF ARCHITECTURE – II

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 03

WEEK	LECTURE DAY	THEORY TOPIC
1ST	1.	Early Christian Architecture
	2.	Early Christian Architecture: Development of church plan (Basilican)
	3.	Early Christian Architecture: Construction methods
	4	General Architectural characteristics. (St. Peters. Rome)
2ND	5	Romanesque Architecture: General architectural characteristics
	6	Romanesque Architecture:planning,geographical conditions.
	7	Romanesque Architecture: materials . (e.g. pisa group of buildings)
	8	Romanesque Architecture:construction methods. (e.g. pisa group of buildings)
3RD	9	Gothic Architecture
	10	Gothic Architecture: Main visual of Gothic arch.
	11	Gothic Architecture: construction vocabulary of Gothic arch.
	12	Gothic Architecture: construction vocabulary of Gothic arch.
4TH	13	(E.g. Notre Dame Paris Reims Cathedral)

	14.	Introduction of Islam in India.
	15	Islam in India – New building types
	16	Islam in India structural system
	18	Islam in India- Structural system and ornamentation (Qutub Minar)
	19	Islam in India- Structural system and ornamentation (Qutub Minar)
-	20	1 ST SESSIONAL TEST
6TH	21	Islam in India- Structural system and ornamentation (Jami Masjid)
	22.	Islam in India- Structural system and ornamentation (Jami Masjid)
	23	Islam in India- Structural system and ornamentation (Iron pillar)
	24	Islam in India- Structural system and ornamentation (Iron pillar)
7TH	25	Islam in India- Structural system and ornamentation (Alai Darwaza)
	26	Islam in India- Structural system and ornamentation (Alai Darwaza)
	27	Provincial styles – Jaunpur (Jama Masjid) planning principals
	28	Provincial styles – Jaunpur (Jama Masjid)Construction methods/ materials
8TH	29.	Provincial styles – Bijapur (Gol Gumbaz) planning principals
	30.	Provincial styles – Bijapur (Gol Gumbaz) Construction methods/ materials
	31.	Mughal Architecture- General architectural characteristics to understand architectural vocabulary.
	32	Mughal Architecture- General architectural- Planning principles in (Humayun Tomb)
9TH	33	Mughal Architecture- General architectural- construction methods in (Humayun Tomb)
	34.	Mughal Architecture- General architectural- Garden planning in (Humayun Tomb)
	35	Mughal Architecture- General architectural- Planning principles in (Red Fort)
	36	Mughal Architecture- General architectural- construction methods in (Red Fort)
10TH	37	Mughal Architecture- General architectural- Planning principles in (Fatehpur Sikri)

	38	Mughal Architecture- General architectural- construction methods in (Fatehpur Sikri)
	39.	Mughal Architecture- General architectural- Planning principles in (Taj Mahal at Agra)
	40	2ND SESSIONAL TEST
11TH	41.	Mughal Architecture- General architectural- construction methods in (Taj Mahal at Agra)
	42.	Mughal Architecture- General architectural- Garden planning in (Taj Mahal at Agra)
	43.	Mughal Architecture- General architectural- Planning principles in (Jama Masjid Delhi)
	44	Mughal Architecture- General architectural- construction methods in (Jama Masjid Delhi)
12TH	45.	Modern Architecture- Emergence of modern architecture in Europe
	46	Modern Architecture- Emergence of modern architecture social & technological.
	47	Aesthetic concerns of modern movement.
	48	Modern Architecture- New building materials (Concrete, steel and glass) and their architectural expression

13TH	49	Modern Architecture- Philosophy and key works of Walter Gropius
	50	Modern Architecture- Philosophy and key works of Frank Lloyd Wright
	51	Modern Architecture- Philosophy and key works of Mies Van De Rohe
	52	Contemporary/ Post Independence Architecture in India
14TH	53	Key works of Le Corbusier in India
	54	Planning of Chandigarh by Le Corbusier
	55	Key works of Charles Correa
	56	Key works of B.V Doshi
15TH	57	Key works of Joseph Allen stein
	58	Indian habitat centre,new delhi

	59	Key works of Raj Rewal
	60	3RD SESSIONAL TEST

LESSON PLAN

NAME OF FACULTY : SURBHI

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 : PARDIP KUMAR MITTAL

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 4th

SUBJECT : WORKING DRAWING AND DETAILING

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 04

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 THE FACULTY : DIVYA RATHI

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 4th

SUBJECT : BUILDING BYELAWS AND MUNICIPAL DRAWINGS

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 : SUNIL RAI

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 6th

SUBJECT : INTERIOR DESIGN

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 03

Week	Theory	
	Topic	
1ST		Introduction to interior design and its scope, general awareness to the subject and discussion. **Principles of interior design**
2nd		**Elements of interior design**: Space, Line, Pattern, Form, Texture, Light,
3RD		Color: (Color and its role in interior decoration, elements of color, psychological impact of color, Basic principle of color decoration, color schemes).
4TH		**Space Analysis:** Prepare the layout of living room, Dining & Kitchens (Sheet No. 1) Prepare the layout of Bedrooms, Children Bedrooms, Toilets (Public, Residential) (Sheet No. 2)
5TH		Prepare the layout of Restaurants/Fast foods (Sheet No. 3) Prepare the layout of Offices Lobbies/ waiting space (Sheet No. 4)
6TH		Prepare the layout of Office/shops (Sheet No. 5) **SESSIONAL TEST-1**
7TH		**Case Studies of Live projects with respect to circulation, activities, furniture, colour scheme, wall, floor finishes, Electrical fixtures and other items** (Paintings, murals, water falls etc.) Houses, Restaurants, Fast foods, Office, shops (Any one) Note: Any one case study to be taken in the form of report with the help of sketches and photographs. Students should carry out the case study by measuring the existing interior space and should represent it through plan elevations and sections along with photographs to show the real effects
8TH		Case Studies of Live projects with respect to circulation, activities, furniture, colour scheme, wall, floor finishes, Electrical fixtures and other items (Paintings, murals, water falls etc.)

9TH		Site visit for case study of restaurant / Fast Food (On site sketches to be made / photographs) Report making of case study
10TH		**Materials**: Market survey of materials relevant to interior only, materials for wall finishes, flooring/ceiling and arrangement of electrical fixtures, lighting systems and other items. (Home assignment in form of report / materials collector)
11TH		Collection of samples and catalogue from market Report making of case study **SESSIONAL TEST-2**
12TH		**Interior Design problem of Restaurants, Houses, Offices, Shop (Any one project to be taken up for design and detailing)** Detailed Plan showing furniture, partition, storage and plants etc. • Elevations • Sectional elevations (wall treatments) • Colour schemes and one point perspective • False ceiling and electrical layout
13TH		Electrical layout in interiors Project work of restaurants (Detailed plan showing furniture, Indoor plants)
14TH		Furniture layout, Sectional elevations showing wall treatment (colour schemes)
15TH		Details of furniture, storage, Partition, False ceiling. **SESSIONAL TEST-3**

LESSON PLAN

NAME OF THE FACULTY : SUNIL RAI
DISIPLINE : ARCHITECTURAL ASSISTANTSHIP
SEMESTER : 6th
SUBJECT : MAJOR PROJECT
PROFESSIONAL TRAINING
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : 16

WEEK	PRACTICAL	
		TOPIC
1ST		Introduction about various topics. Group Formation. Synopsis from the individual group.
2nd		Library study. Visit to Library
3RD		Collect effective data. Consolidate report of library study. Checking of library study of individual group.
4TH		Site visit. Allotment of letter for Site visit.
5TH		Site visit report submission. Report checking.
6TH		Define Concept
7TH		Final Report submission
8TH		Rough floor plan and Site Plan Final floor plan
9TH		Rough elevation submission Final elevation submission
10TH		Final Floor Plans
11TH		Elevations & Sections
12TH		Working Drawings
13TH		Presentation Drawings
14TH		Model preparation
15TH		Model submission

LESSON PLAN

NAME OF THE FACULTY : Divya Rathi

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 6th

SUBJECT : ENTREPRENEURSHIP DEVELOPMENT AND MANAGEMENT

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 03

Week	Theory	
	Lecture Day	**Topic**
1ST	**1**	Concept of Entrepreneurship
	2	Meaning of Entrepreneurship
	3	Need of Entrepreneurship
2ND	**4**	Qualities of Entrepreneur
	5	Functions of Entrepreneur
	6	Barriers inv Eentrepreneurship
3RD	**7**	Sole proprietorship of business organisations
	8	Partnership forms of business organisations
	9	Schemes of assistance by entrepreneurial support agencies at National, State, District –level, organisation: NSIC, NRDC,
4TH	**10**	DC, MSME, SIDBI, NABARD,
	11	Commercial Banks, SFC's TCO
	12	KVIB, DIC
5TH	**13**	Technology Business Incubators (TBI)
	14	Science and Technology Entrepreneur Parks
	15	**SESSIONAL TEST-1**

6TH	**16**	Market Survey and Opportunity Identification * Scanning of the business environment
	17	Salient features of National

	18	State industrial policies for business environment
7TH	**19**	Types of market survey
	20	Conduct of market survey
	21	Assessment of demand in potential areas of growth
8TH	**22**	Assessment of Supply in potential areas of growth
	23	Identifying business opportunity
	24	Considerations in product selection
9TH	**25**	Project report Preparation Preliminary project report
	26	How to prepare Project report
	27	Detailed project report including technical
10TH	**28**	Detailed project report including economic
	29	Detailed project report including market feasibility
	30	**SESSIONAL TEST-2**
11TH	**31**	Common errors in project report preparations
	32	Exercises on preparation of project report
	33	Definitions and importance of management Functions of management: Importance and process of planning, organising, staffing, directing and controlling
	34	Principles of management (Henri Fayol, F.W. Taylor)
	35	Concept and structure of an organisation

12TH	**36**	Types of industrial organisations a) Line organisation b) Line and staff organisation c) Functional Organisation
13TH	**37**	Leadership and Motivation a) Leadership
		Definition and Need Qualities and functions of a leader Manager Vs leader Types of leadership
	38	b) Motivation ▪ ▪ Definitions and characteristics ▪ ▪ Factors affecting motivation ▪ ▪ Theories of motivation (Maslow, Herzberg, Douglas, McGregor)
	39	Management Scope in Different Areas a) Human Resource Management ▪ ▪ Introduction and objective ▪ ▪ Introduction to Man power planning, recruitment and selection ▪ ▪ Introduction to performance appraisal methods b) Material and Store Management ▪ ▪ Introduction functions, and objectives ▪ ▪ ABC Analysis and EOQ
14TH	**40**	c) Marketing and sales ▪ ▪ Introduction, importance, and its functions ▪ ▪ Physical distribution ▪ ▪ Introduction to promotion mix ▪ ▪ Sales promotion
	41	d) Financial Management ▪ Introductions, importance and its functions ▪ Elementary knowledge of income tax, sales tax, excise duty, custom duty and VAT1
	42	Miscellaneous Topics a) Customer Relation Management (CRM) ▪ ▪ Definition and need ▪ ▪ Types of CRM
15TH	**43**	b) Total Quality Management (TQM) ▪ ▪ Statistical process control ▪ ▪ Total employees Involvement ▪ ▪ Just in time (JIT

	44	c) Intellectual Property Right (IPR) ▪ ▪ Introductions, definition and its importance ▪ ▪ Infringement related to patents, copy right, trade mark
	45	**SESSIONAL TEST-3**

LESSON PLAN

NAME OF THE FACULTY : GURDEEP MALIK

DISIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 6th

SUBJECT : STRUCTURAL SYSTEM II

MECHANICS LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 03

Week	Theory	
	Lecture Day	Topic
1ST	1	Definition, concept, importance of RCC in construction
	2	Compressive strength, workability, durability, mix design
	3	Types of reinforcement, material properties, selection criteria
2ND	4	Steel's bonding with concrete, advantages over other materials
	5	Yield strength, ductility, tensile strength, applications
	6	Benefits of HYSD/TMT steel, differences between HYSD and TMT
3RD	7	Introduction to RCC design principles, design philosophies
	8	Role of beams, columns, and slabs in RCC, load transfer mechanisms
	9	Effect of improper material choices, material-related failures
4TH	10	Types of foundations: Shallow and Deep
	11	Types of shallow foundations, when to use shallow foundations
	12	Types of deep foundations, when deep foundations are necessary
5TH	13	Load-bearing capacity of soil, safety factors, soil testing
	14	Excavation, formwork, reinforcement, concrete placement
	15	**SESSIONAL TEST - 1**
6TH	16	Design considerations, when and why to use raft foundations
	17	Types of piles, pile installation techniques
	18	Types of caissons, construction techniques

7TH	19	Soil classification, bearing capacity, soil improvement
	20	Types of settlements, impact on structural integrity, control methods
	21	Foundation design for earthquake resistance, seismic load distribution
8TH	22	Purpose, types, and roles of columns
	23	Axially loaded, eccentrically loaded columns, short vs. slender columns
	24	**SESSIONAL TEST - 2**
9TH	25	Impact of axial loads, load distribution
	26	Buckling, bending, and shear in columns, safety factors
	27	Basic design principles for columns under axial loads

10th	28	Slenderness ratio, effect on column strength, preventing buckling
	29	Effect of lateral loads (wind, seismic), design of lateral stability
	30	Tied vs. spiral columns, design principles, applications
11TH	31	Longitudinal and lateral reinforcement, column cross-section design
	32	High-strength, composite columns, advanced materials
	33	Types of beams, load distribution in beams
12TH	34	Bending moment and shear force analysis, moment-curvature relation
	35	Design principles, shear and bending strength
	36	Design under various loads, safety factors in beam design
13TH	37	Bending moment, shear force, and deflection calculations
	38	Design principles for cantilever beams, reinforcement details
	39	Design under multiple loads, reinforcement in continuous beams
14TH	40	Longitudinal and shear reinforcement, placement techniques
	41	Understanding torsional stresses, design for torsion
	42	High-strength, pre-stressed beams, advanced materials
15TH	43	Design principles, bending and reinforcement for one-way slabs
	44	Design principles, load distribution, reinforcement for two-way slabs

	45	**SESSIONAL TEST - 3**

LESSON PLAN

NAME OF THE FACULTY : SURBHI

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 6th Sem

SUBJECT : Building maintenance

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 03

WEEK	LECTURE DAY	THEORY TOPIC
1st	1.	Overview, significance, objectives, and role in maintaining the building value
	2.	Cost-benefit analysis, long-term savings, preservation of property value
	3.	Lifecycle management, maintaining value, enhancing building longevity
2nd	4.	Types of maintenance: Reactive vs. proactive, planning, scheduling maintenance tasks
	5.	Routine, preventive, and corrective maintenance
	6.	Common materials used: Cement, sealants, paints, adhesives, and coatings
3rd	7.	Factors to consider: Compatibility, durability, cost, availability
	8.	Hand tools, power tools, machinery, safety equipment
	9.	Safety measures, hazards in maintenance, worker protection
4th	10.	Compliance with building codes, warranties, and regulations

	11.	Benefits of proactive care: Minimizing costs, extending life of structures
	12.	Real-world examples of successful and failed maintenance
5th	13.	Overview of common building defects, classification, and causes
	14.	Common defects in walls, floors, ceilings, finishes, and interiors
	15.	SESSIONAL TEST-I
6th	16.	Common defects in façades, roofs, windows, doors, and external finishes
	17.	Material failure, environmental effects, design issues
	18.	Types of cracks, causes, and repair techniques
7th	19.	Common defects in finishes like paint, plaster, tiles, and coatings
	20.	Peeling, discoloration, cracking, efflorescence
	21.	Techniques: Patching, resurfacing, repainting, plastering
8th	22.	Identifying leaks, moisture-related issues, and solutions
	23.	Repairing damp walls, ceilings, and floors
	24.	Damage from sun, wind, rain, temperature changes, and repair solutions
9th	25.	Real-world case studies of defect identification and repair
	26.	Causes, effects, types of dampness: Rising damp, condensation, leaks

	27.	Reasons: Rising damp, water leaks, plumbing issues, poor drainage
	28.	Detecting dampness through visual cues, tools for identification

10th	29.	Effects on walls, floors, timbers, metals, finishes, and health concerns
	30.	SESSIONAL TEST-II
11th	31.	Waterproofing, ventilation, surface treatments, and moisture barriers
	32.	External treatments: Sealing, drainage improvements, repairs
	33.	Proper design considerations, moisture control in layouts
12th	34.	Mould, mildew, poor indoor air quality, and health risks for occupants
	35.	Importance of preventive maintenance to ensure longevity and functionality
	36.	Cleaning techniques for maintaining hygiene, cleanliness, and aesthetics
13th	37.	Maintaining joints in walls, ceilings, and floors to avoid cracks and water infiltration
	38.	Effective floor and surface cleaning techniques to prevent damage and wear
	39.	Identifying termites, prevention methods, and treatments
14th	40.	Preventive care for water supply, drainage, and sanitation systems
	41.	Ensuring safety and functionality of electrical wiring, fixtures, and systems
	42.	Roof inspection, maintenance techniques to prevent leaks and deterioration
15th	43.	Scheduled Maintenance for Water Supply and Sanitary Systems
	44.	Overview of scheduled maintenance for different systems, ensuring effective functioning
	45.	SESSIONAL TEST-III

LESSON PLAN

NAME OF THE FACULTY : GURDEEP MALIK

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 6th

SUBJECT : **COMPUTER APPLICATIONS IN ARCHITECTURE - III**

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK 04

WEEK	LECTURE DAY	THEORY TOPIC
1ST	1.	Introduction to Rendering Software
2ND	2.	Overview of rendering software for architectural drawings , Understanding the interface and basic tools
3RD	3.	Importing 2D drawings and 3D models from drafting software , Introduction to rendering concepts such as materials, textures, and lighting
4TH	4.	2D Rendering Techniques using AutoCAD and Adobe Photoshop ,Applying materials and textures to 2D drawings ,Adding shadows, gradients, and effects
5TH	5.	IST SESSIONAL TEST
6TH	6.	3D Rendering Fundamentals 1. Basic 3D rendering techniques: modeling, texturing, and lighting 2. Creating scenes and camera perspectives
7TH	7.	Rendering 3D models imported from SketchUp , Project: Rendering a simple architectural model in 3D
8TH	8.	Advanced 3D Rendering Techniques ,Enhancing 3D models with advanced materials and textures
9TH	9.	Adding realism with procedural textures and displacement mapping ,Fine-tuning lighting and shadow settings

10TH	10.	2ND SESSIONAL TEST
11TH	11.	Project: Rendering a detailed architectural model with interior and exterior views
12TH	12.	Presentation and Visualization , Creating professional presentations using rendered images and animations
13TH	13.	Integrating rendered images into design portfolios and presentations, Exploring virtual reality (VR) and augmented reality (AR) applications for architectural visualization
14TH	14.	Project: Creating a portfolio showcasing rendered architectural drawings and presentations
15TH	15.	3RD SESSIONAL TEST