

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	
1	-	7	9	100	100	50	250	6 Hrs.

OBJECTIVES:

- Introduction to human activity and spaces required for activities.
- Introduction to basic building components and their dimensions.
- To appreciate the elements in architectural design of single unit built structures.

CONTENTS:**Anthropometrics Studies:**

Studies and introduction to human dimensions and functions, space-activity, relationships, measured drawing of a simple living units.

Living spaces and building:

Measuring drawing and dimensioning of simple building components, Designing for basic functions of human being, e.g. living, eating, sleeping, cooking, toiletries, etc.

Building Design:

Design of mono- cellular-unit/structure on a level plane, designing of simple activity spaces, designing of multiple but simple activity spaces involving primarily horizontal circulation.

APPROACH:

- Exercise to emphasis the significance of the user in the process of design.
- Selection of building for measure drawing of prototypes only.
- The design of building unit to be completed in the following stages: prototype study, problem identification, site analysis, preliminary sketch etc. Models of the final design necessary for greater comprehension.

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1	-	5	6	100	50	50	200	3 Hrs.

OBJECTIVES:

- To acquaint the students to building materials such as Timber, Reinforced Concrete and Reinforced Brick Work.
- To familiarize the students with construction techniques for use of the above materials in building works.

CONTENTS:**1. MATERIALS:**

Timber:	Classification, Characteristics, Defects, Preservation.
Concrete:	Lime Cement
Reinforced Cement Concrete	Types, Mixing, Curing, Water Cement Ratio,
And Reinforced Brick Concrete:	Qualities and Workability.
D.P.C:	Asphalt, Bitumen, Synthetic.

2. CONSTRUCTION:

Brick Work:	Arches, Brick, Stone, elementary principles, definition and centering. Corbelling, Coping, String Courses, Decorative Brick work, Brick jails, Special Bonds-Rat Trap Bond, Garden Bond etc.
Timber:	Elementary Carpentry, Common joints, Details of Ledged and Braced Batten Doors.
D.P.C:	Introduction to Horizontal D.P.C. Vertical Damp proofing.

APPROACH:

- The students would be familiarized with glossary of vernacular terminology as prevalent in this part of the country.
- The emphasis will be on construction details as applicable to Indian conditions.
- Site visits to Timber market, Lime Kiln and Cement factory.
- Knowledge about rates of materials should be given.

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2	1	-	3	50	50	-	100	3 Hrs.

OBJECTIVES:

1. To understand the basic principles of structural mechanics so that it forms basis for study of structural design.

CONTENTS:**Stresses in Trusses:**

Definitions, forces in members, analytical method, method of sections, graphical method, Link polygon.

Direct and Bending Stresses:**Distribution of shear Stress:**

Shear stress in the section of a beam, different sections.

Deflection of Beams:

Simple cases.

Column:

Definition, end conditions, buckling and critical loads, slenderness ratio.

APPROACH:

- The lectures by the experts in the field will be arranged for the students so as to give them exposure to the practical aspects of design.

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1	-	5	6	100	100	-	200	3 Hrs.

OBJECTIVES:

- To familiarize the student with theoretical, practical and pictorial aspects of architectural drawing.
- To introduce the students to graphic treatment of two-dimensional drawing.
- To develop perception and presentation of simple architectural forms and buildings.

CONTENTS:**Metric Drawing:**

Types, uses and advantages.
 Isometric, axonometric and pictorial view.
 Metric Drawing and Projection and their dimensioning.
 Metric of plane figures composed of straight lines.
 Metric of circles.
 Metric of simple and complex blocks.
Drawing geometrical curves helix, conoid etc.

Perspective Drawing:

Purpose and use.
 Differences with metric projections.
 Anatomy of a perspective- cone of vision, station point, picture plane, eye level, horizon line, ground line, vanishing point, etc.
 Types of perspective of simple- One point, two points, and three points perspectives.
 Perspective of simple and complex box blocks.
 Perspective of simple curved surface.
 Perspective of simple household furniture items.

Shades and shadows:

Values in shades and shadows.
 Constructing plan shadows (points, line and plane).
 Constructing shadows in elevations (points, line and plane).
 Short-cut methods for constructing shadows.
 Presentation techniques in Sciography.

**Solid geometry:
of solids.**

Construction of section, intersection and **interpenetration**

APPROACH:

- The emphasis will be on drawing in the studio and different mediums will be used.
- The sun- path model would be used as a teaching aid while teaching shades and shadows.

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1	-	3	4	50	50	-	100	3 Hrs.

INTENT:

- The subject of Arts and Graphics would encompass:
- Introduction to art and appreciation of art and its philosophies.
- Familiarization with principles and theories of graphics and architectural composition.
- Development of Art and Graphics skills.

CONTENTS:**Philosophy of Art:**

(Introduction to great Masters and Modern, Art Movements)

Renaissance – Giotto, Leonardo da Vinci, Michael Angelo.

Baroque – Rembrandt.

Realism – Rodin, Ingres.

Impressionism – Manet, Renoir, Gauguin, Van Gogh.

Fauvism – Matisse.

Cubism – Picasso, Henry Moore, Duchamp.

Expressionism – Paul Klee, Chagall.

Surrealism – Dali.

Theory of Design:

(Introduction to architectural Composition)

Unity, Elements of unity, - Texture, Colour,

Tone Direction, Proportion,

Form and shape, solids and voids.

Aspects of unity – Dominance, Harmony, Proportion, rhythm, vitality.

Arts and Graphics skills:

Free hand Drawing – drawing people, furniture, fabric and transport from imitation, observation and recapitulation.

equipments like transfers, airbrush, rendering architectural drawings.

APPROACH:

- The theory part of the course will be an overview covered through audiovisual lectures delivered by experts in the field.
- Studio exercise of graphic composition will be in the form of drawing, collages and models.
- The students would be taught to handle various mediums in studio work as part of development of art and graphic skills. The examination paper would be so set so as to test the knowledge and understanding of the student for each distinct part of the syllabus.

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1	2	-	3	50	-	-	50	-

OBJECTIVES:

- To bring about awareness of the role of surveying and leveling in architectural and planning projects.
- To familiarize the student with techniques of surveying and leveling.

CONTENTS:**Surveying:**

Role of surveying in Architecture, Types of survey.
Introduction to various techniques- Chain and Plain Table Survey, Travers Survey.
Contouring – Contour Maps characteristics, use and interpretation.

Leveling:

General principles of leveling in context of Architecture and Planning.
Theodolite – Theodolite and its use on site.

Photogrammetry:

Definition, principles and application of photography in surveying.

APPROACH:

- Emphasis on field exercise and on site surveys.
- The theoretical part of the course shall be covered through lectures.

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1	2	-	3	50	-	-	50	No Exam.

OBJECTIVES:

- To acquaint the students with the basic knowledge of Computers.
- To familiarize the students with the different Computer Operating System.
- To introduce the computer data entry skills to the students.

CONTENTS:**Introduction of Computers:**

General historical background of Computer development
Introduction to Hardware and general idea of their use.

Operating System:

Basic knowledge of the different operating system and Basic commands in MS DOS, Windows-Salient features.

General Idea about other Popular operating systems:

UNIX, Linux etc.

Data entry & Data retrieval:

General Typing skills.

APPROACH:

- The emphasis should be given to actual working on computer and
- Typing skills to be developed.