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**SCHEME OF TEACHING AND EXAMINATION AT
B. ARCH. IV SEMESTER - VII**

COURSE	COURSE No.	TEACHING SCHEDULE								
		Lecture	Tutorial	Studio Work	Th Ex					
					du	H				
1	2	3	4	5	6					
Studio- VII Professional Training	AR-701	—	-----	—	N					

NOTE: Students have to undergo professional training w (min. 16 weeks), have to submit a comprehensive report certificate from the concerned Architect that the work presented on scheduled date as a part of University Exam assessment

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**SCHEME OF TEACHING AND EXAMINATION AT B.
ARCH IV SEMESTER - VIII**



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COURSE	COURSE No.	TEACHING SCHEDULE			EXAMI							
		Lecture	Tutorial	Studio Work	Theory Exam							
					durat Hrs.	M						
1	2	3	4	5	6							
Studio- VIII Architectural Design	AR-801	—	—	11	—	----						
Hi-Tech Structures	AR-802	3	2	-----	3							
Urban Planning & Management	AR-803	3	2	—	3							
Construction Management & Bldg.Economks	AR-804	3	2	—	3							
Elective-UI Any one of the following Sub. 1> Energy Efficient Archl. 2> Humanities 3> Product Design	AR-805 AR-806 AR-807	1	-----	3	2							
		10	06	14	11							

YEAR: IV

SEMESTER: VII

Subject code	. AR-701			
2 Subject Name	Professional Training	Theory		MARKS
Lectures	Na	Tutorial		Na
Tutorial	Na	Viva		Na
paper (Theory)	Na	Total		Na

EMPHASIS:

UNDERSTANDING PRACTICAL ASPECTS OF THE ARCHITECTURAL PRACTICE.

CONTENT:

UNDERSTANDING OF DESIGN PROCESS FROM BRIEF TO PRODUCTION DRAWINGS DEVELOPMENT CONTROL RULES, DRAWINGS FOR APPROVAL BY VARIOUS AUTHORTNES, TENDER DOCUMENTS, CONTRACTS, CONSTRUCTION & STTE SUPERVISION.

UNDERSTANDING THE SYSTEM OF DEALING WITH CLIENT, MEMBERS OF THE WORK TEAM, CONSULTANTS, CONTRACTORS.

PROJECTS:

DETAILED REPORT OF WORK DONE AT RESPECTIVE OFFICE

YEAR: IV

SEMESTER: VIII

Subject code	: AR-801 : STUDIO-			
Subject Name	VHI Architectural			MARKS
	Design	Theory		Na
Lectures	Na	Tutorial		Na
Tutorial Term	Na	Sem End.Exam.		240
Work paper	11	Cont Evaluation		160
(Theory)	Na	Total		400

EMPHASIS :

A: HOUSING

B: BUILDING COMPLEX IN URBAN CONTEXT GROUP PROJECT.

CONTENT:

A > DWELLING, SCALES OF SPACES, BUILDING SCALES, ISSUES OF HIERARCHY, IDENTITY, PUBUC & PRIVATE, EFFICIENCY OF SERVICES, ISSUES OF URBAN DENSITY, LAND USE, GROUND COVERAGE, BUILDING LINE, URBAN BYE-LAWS, ETC URBAN SYSTEMS, SERVICES & THEIR INTEGRATION WITH HOUSING NEIGHBOURHOODS, COMMUNITY & COMMUNICATION PATTERNS, USER SATBFACATION, APPROPRIATE TECHNOLOGY & COSTS.

B > URBAN SECTOR OR BLOCK, ITS COMPOSITION, TYPES. ISSUES & TYPES OF URBAN SPACE & FORM, BASIC URBAN DESIGN PRINCIPLES. PRINCIPLES OF BUILDING IN CONTEXT. INTEGRATION OF DIVERSE FUNCTIONAL NEEDS - ACCESS & MOVEMENT SYSTEMS, PARKING AND SERVICES. CHARACTER OF TOTALITY & PART IN THE URBAN CONTEXT.

PROJECTS:

A: URBAN HOUSING FOR ALL INCOME GROUPS (DWELLING, CLUSTER OF SINGLE OR MULTI-STORED UNITS, NEIGHBOURHOOD, LOCATION OF INSTITUTIONS & INFRASTRUCTURE FACILITIES).

^ B: CASE STUDY - CONTEXTUAL ANALYSIS OF URBAN CONTEXT, WITH BLOCK MODEL - GROUP PROJECT.

PART BUILDING TO DETAIL - INDIVIDUAL PROJECT.

YEAR: IV

SEMESTER: VIII

Subject code	AR-802 Hirtech		MARKS
Subject Name	structure 03 Hrs.	Theory	100
Lectures	2 Hrs.	Tutorial	50
Tutorial paper (Theory)	3 Hrs.	Viva	Nil
		Total	150

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STUDY & UNDERSTANDING PRINCIPLES & CONSTRUCTIONAL DETAILING OF ADVANCED STRUCTURES.

PIM' CONTENT*

^SURFACE STRUCTURES : • TYPES OF SURFACE STRUCTURES, (INTRODUCTION OF VARIOUS TYPES OF SHELLS, PRINCIPLES OF SHELLS".

2. FOLDED PLATE STRUCTURES : ■ VARIOUS TYPES OF FOLDED FLAT STRUCTURES, GENERAL BEHAVIOR AND DESIGN OF A SIMPLE TYPE OF FOLDED PLATE ROOF."

3. MEMBRANE STRUCTURES:" INTRODUCTION TO MEMBRANE STRUCTURES, HS BEHAVIOR IN GENERAL SIMPLE FORM IN THE LABORATORY AND PREPARING SCALED MODELS".

4 GRIDSTRUCTURES: -INTRODUCTION TO GRIDS, PLANER AND CURVED TYPES OF GRIDS. DEVELOPMENT OF SIMPLE FORMS AND CONSTRUCTION OF SCALED MODELS".

5. HIGH-RISE STRUCTURES:

6. INFLATED STRUCTURES; TYPES OF INFLATED STRUCTURES, AND METHODS OF ERECTION.

7. TENSILE STRUCTURES:



REFERENCES:

> ADVANCE BUILDING CONSTRUCTION: LUGNERVE
> TENSILE ARCHITECTURE : PHILIP DREW JSSSSSS5SS5
> .U^SPO^C^ECBANDENONEERS ,
THOMASHERZOC

YEAR: IV**SEMESTER: VIII**

Subject code	AR-803	MARKS	
Subject Name	Urban Planning & Management	Theory	100
Lectures	03 Hrs.	Tutorial	50
Tutorial	02 Hrs.	Viva	Nil
paper (Theory)	03 Hrs.	Total	150

EMPHASIS:

INTRODUCTION TO URBAN MANAGEMENT & ARCHITECTS ROLE IN URBAN PLANNING.

CONTENT;

1. HISTORY OF PLANNING EFFORTS FOLLOWED IN WESTERN COUNTRIES AND **India**. UNDERSTANDING THE NEED FOR STATUTORY PROVISIONS FOR BETTER ADMINISTRATION & MANAGEMENT.

2. INTRODUCTION TO URBAN INFRASTRUCTURE AND ITS MANAGEMENT (WATER SUPPLY, SEWERAGE, ELECTRICITY, SOLID WASTE, & TELECOMMUNICATION) AT CITY LEVEL.

3. DIFFERENT AUTHORITIES & THEIR JURISDICTIONS (RELATED TO URBAN INFRASTRUCTURE).

4. ARCHITECTS ROLE IN PLANNING & MANAGEMENT OF URBAN INFRASTRUCTURE SYSTEMS, FROM BUILDING UNIT LEVEL TO CITY LEVEL.

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REFERENCES;

- > ELEMENTS OF PUBLIC HEALTH ENGINEERING :K.N.DUGGAL
- > THE FUTURE OF CITIES: ANDREW BLOWERS
- > URBAN PATTERN CITY PLANNING AND DESIGN :GALUON ARTHUR

YEAR: IV**SEMESTER: VIII**

Subject code	AR-804	MARKS	
Subject Name	Construction Management & Building Economics 03	Theory	100
Lectures	Hrs.	Tutorial	50
Tutorial paper	2 Hrs.	Viva	Nil
(Theory)	3 Hrs.	Total	150

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EMPHASIS:

TO INTRODUCE THE STUDENTS WITH CONSTRUCTION MANAGEMENT PROBLEMS & TECHNIQUES IN THE FIELD.

^CONTENT : , A: CONSTRUCTION

MANAGEMENT

- 1. DEFINITION OF THE TERM "MANAGEMENT". PLANNING/ PROGRAMMING IN ADVANCE & TIMELY EXECUTION THEREOF.**
- 2. STUDY OF SITE MANAGEMENT.**
- 3. CRITERIA OF "DECISION-MAKING". RELEVANCY OF A "DECISION" IN CONTEXT WITH "WORK PROGRESS".**
- 4. METHOD OF DAILY/WEEKLY/MONTHLY PLANNING OF EXECUTION OF WORK, CONSIDERING AVAILABILITY OF DETAILS, DESIGNS, MATERIALS, LABOR, EQUIPMENT & FINANCE.**
- 5. METHODS OF ACTUAL EXECUTION OF WORK & ITS ROUTINE COMPARISON WITH PLANNED EXECUTION.**
- 6. RESCHEDULING/RESHAPING OF WORK AS PER SITE CONDITIONS & PREVAILING CIRCUMSTANCES.**
- 7. HANDLING OF CONTRACTORS, SUB-CONTRACTORS, LABOURERS & MANAGEMENT.**
- 8. INSURANCE & OTHER REQUIREMENTS AS PER THE LABOR LAWS, WORKMAN'S COMPENSATION ACT PROVISIONS & OTHER RELATED LAWS.**
- 9. STORAGE, HANDLING & SAFE KEEPING OF MATERIALS ON SITE**
- 10. MAINTENANCE & SAFE KEEPING OF MATERIALS ON SITE.**
- 11. KEEPING OF VARIOUS RECORD/REGISTERS AS TOOLS OF MANAGEMENT. MERITS & DEMERITS OF VARIOUS SYSTEMS OF RECORD KEEPING.**
- 11 CO-ORDINATION BETWEEN OWNER, CONSULTANTS AND CONTRACTOR.**
- 13. MAINTENANCE OF MORE SOPHISTICATED TOOLS, PLANTS & EQUIPMENT.**
- 14. ADVANCED MANAGEMENT TECHNIQUES.
— BAR CHART, PERT, C.P.M METHODS.**

B: BUILDING ECONOMICS :

- 1. DEMAND FOR BUILT SPACES & SURVEY.**
- 2. MARKET ANALYSIS - CHOICE OF CONSUMERS.**
- 3. BUILDING ACTIVITY AS AN INDUSTRY & VARIOUS LAND & HOUSING POLICIES.**
- 4. SUPPLY VS DEMAND.**

REFERENCES:

- > THE A TO Z OF PRACTICAL BUILDING CONSTRUCTION AND ITS MANAGEMENT : MANTRI INSTITUTE**
- > TECHNIQUES FOR CONSTRUCTION NETWORK SCHEDULING: JAMES D. STEVENS**
- > CONSTRUCTION PLANNING THROUGH SYSTEM TECHNIQUES: MAHESH VARMA**

ELECTIVE-III

ANY ONE OF THE FOLLOWING SUBJECTS MAY BE TAKEN UP AS AN ELECTIVE SUBJECT

YEAR: IV

SEMESTER: VIII

Subject code	AR-805		MARKS
Subject Name	Energy Efficient Architecture	Theory	50
Lectures Term	1 Hrs.	SemL End. Exam.	60
Work paper (Theory)	2 Hrs. 02 Hrs.	Cont Evaluation	40
		Total	150

- 1> TYPES , SOURCES , AVAILABILITY & RESERVES OF CONVENTIONAL & NON CONVENTIONAL ENERGY.
- 2> ASSESSMENT OF ENERGY CONSUMPTION IN A BUILDING AND METHODS OF ENERGY CONSERVATION.
 - » THROUGH MINIMIZING WASTAGE
 - » THROUGH APPROPRIATE USE OF CLIMATOLOGY.
 - » THROUGH APPROPRIATE DESIGN AND PLANNING OF BUILDINGS
- 3> INTRODUCTION TO SOLAR ENERGY EFFICIENT ARCHITECTURE.
STUDY OF SOLAR RADIATION ON EARTH SURFACE. MEASUREMENT, ANGLES ESTIMATION, ANALYSIS. ORIENTATION OF BUILDING WITH REFERENCE TO SOLAR RADIATION. SPECIAL DESIGN PLANNING DETAILING. ACTIVE SOLAR ARCHITECTURE. PASSIVE SOLAR ARCHITECTURE.
- 4> INTRODUCTION TO WIND ORIENTED ARCHITECTURE . STUDY AND ANALYSIS OF MICROCLIMATE WIND. DESIGN AND PLANNING OF BUILDING CONSIDERING WINDS.
- 5> STUDY OF ENERGY EFFICIENT BUILDING MATERIAL AND CONSTRUCTION TECHNIQUES.
- 6> CASE STUDY OF NATIONAL AND INTERNATIONAL EXAMPLES.
STUDIO PROBLEM.

REFERENCES:

- > A TROPICAL MANUAL OF HOUSING - OH. KOENIGSBERGER
- > CLIMATOLOGY : OLGEC
- > THE ARCHITECTURE OF THE WELL TEMPERED ENVIRONMENT: BANHAM & REYNER

* YEAR: IV

SEMESTER: VIII

³ Subject code	AR-806		MARKS
Subject Name	Humanities	Theory	50
Lectures Term	1 Hrs.	Sem. End. Exam.	60
Work paper (Theory)	2 Hrs. Hrs.	Cont Evaluation	40 02
		Total	150

EMPHASIS:

STUDY OF GENERAL SOCIAL, ECONOMIC AND CULTURAL FACTORS WHICH INFLUENCE ARCHITECTURE.

CONTENTS:

1> CULTURAL FACTORS:

THE CONCEPT OF " SETTLEMENT " AS APPLICABLE TO DIFFERENT CULTURES.
RURAL / URBAN ATTITUDES TO PUBUC AND PRIVATE SPACES. CIVIC INShTUTIONS AND THEIR REFLECTION IN ARCHITECTURE.



2> SOCIAL INSTITUTIONS:

A STUDY OF SOCIAL INSTITUTIONS AND THEIR REFLECTION / INFLUENCE ON ARCHITECTURE

- A> THE FAMILY-JOINT FAMILY AND NUCLEAR FAMILY
- B> THE NEIGHBOURHOOD trS CHARACTER AND NEEDS
- C> THE WORK PLACE
- D> EDUCATION
- E> RELIGION
- F> GOVERNANCE, CORPORATIONS ,PANCHAYATS, CIVIC CENTERS.
- G> SECURITY
- H> RECREATION-PARKS, STADIUMS etc
- I> CULTURE-ART GALLERIES, MUSEUMS eta

3> ECONOMIC FACTORS:

RURAL / URBAN DICHOTOMY . SOCIAL POLmCAL INDUSTRIAL AND ECONOMIC FACTORS AFFECTING THE LOCATION , CONSTRUCTION FINANCING AND MARKETING OF BUILDINGS WITH EMPHASIS ON COSTING SLUMS,LIG,MK5,HIGH RISE BUILDINGS.

REFERENCES:

- > URBAN PATTERN - CITY PLANNING AND DESIGN : GALLION ARTHUR
- > HUMAN SETTLEMENT IN ASIA :R.P.MISHRA
- > HUMAN SETTLEMENT: CHATTOPADHYA

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. YEAR:IV

SEMESTER: VIII

« Subject code	AR-807 Product	MARKS Theory	
SubfectName	Design	50 Sem. End. Exam.	60
Lectures Term	01 Hrs.	Cont Evaluation	40
Work paper	02 Hrs.	Total	150
(Theory)	02 Hrs.		

EMPHASIS:

1 > DESIGNING VARIOUS PRODUCTS OF DAY TO DAY UFE TO ENHANCE ITS FUNCTIONAL AND EST VALUES, eg. CHAIRS , WARDROBES, MULTIPURPOSE CABINETS etc

2 > DESIGNING OF VARIOUS BUILDING COMPONENTS EXPLORING DIFFERENT MATERIALS TO SUR FUNCTIONS AND ITS ESTHETIC eg. DOORS, WINDOWS, PRECAST BUILDING COMPONENTS etc.

REFERENCES:

- > **ART THE WAY IT IS: RICHARDSON ARTKINS**
- > **ANUAL OF FURNITURE DESIGN :CREVER**
- > **THEGUILD3:KRANSSIKESINC**
- > **DESIGN FROM SCANDINAVIA: WORLD PICTURE APS.**

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