Re-Accredited 'B++' 2.86 CGPA by NAAC
VEER NARMAD SOUTH GUJARAT UNIVERSITY
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વીર નર્મદ દક્ષિણ ગુજરાત યુનિવર્સિટી
યુનિવર્સિટી કેમ્પસ, ઉધના-મગદલ્લા રોડ, સુરત - ૩૯૫ ૦૦૭, ગુજરાત, ભારત.
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-: પરિપત્ર :-

આર્કિટેકચર એન્ડ ડીઝાઈન વિદ્યાશાખા હેઠળની સંલગ્ન કોલેજોનાં આચાર્યશ્રીઓને જણાવવાનું કે, શૈક્ષણિક વર્ષ ૨૦૨૨–૨૩ થી અમલમાં આવનાર B.Arch. કોર્ષના સેમેસ્ટર –૧ નો નવા સિલેબસ, ટીચીંગ સ્કીમ અને નવી પરીક્ષા સ્કીમ સંદર્ભે આર્કિટેકચર એન્ડ ડિઝાઈન વિદ્યાશાખા તથા આર્કિટેકચર વિષયની અભ્યાસ સમિતિની સંયુકત સભાની તા.૧૫/૧૦/૨૦૨૨ની સભાનાં ઠરાવ ક્રમાંકઃ ૨ થી કરેલ ભલામણ એકેડેમિક કાઉન્સિલની તા.૧૮/૧૦/૨૦૨૨ ની સભાનાં ઠરાવ ક્રમાંકઃ ૩૧ થી મંજૂર કરેલ છે. જેની આથી જાણ કરવામાં આવે છે, તેની જાણ સંબંધકર્તા શિક્ષકો અને વિદ્યાર્થીઓને કરવી, તદ્ઉપરાંત તેનો અમલ કરવો.

આર્કિટેકચર એન્ડ ડિઝાઈન વિદ્યાશાખા તથા આર્કિટેકચર વિષયનીઅભ્યાસ સમિતિની સંયુકત સભાની તા.૧૫/૧૦/૨૦૨૨ ના ઠરાવક્રમાંકઃ૨

:: આથી ઠરાવવામાં આવે છે કે, બી.આર્કિટેકચર કોર્સનો ૧૦ સેમેસ્ટરનો નવો અભ્યાસક્રમ, શિક્ષણ પધ્ધતિ તથા પરીક્ષા પધ્ધતિ શૈક્ષણિક વર્ષ ૨૦૨૨–૨૩ થી પ્રોગ્રેસીવ ધોરણે અમલમાં આવે તે માટે મંજૂરી આપવા એકેડેમિક કાઉન્સિલને ભલામણ કરવામાં આવે છે.(નોંધ : હાલ પ્રથમ વર્ષનો ડીટેઈલ અભ્યાસક્રમ સામેલ છે.)

એકેડેમિક કાઉન્સિલની તા.૧૮/૧૦/૨૦૨૨ની સભાનાં ઠરાવ ક્રમાંકઃ૩૧

:: આથી ઠરાવવામાં આવે છે કે, આર્કિટેકચર એન્ડ ડિઝાઈન વિદ્યાશાખા તથા આર્કિટેકચર વિષયની અભ્યાસ સમિતિની સંયુકત સભાની તા.૧૫/૧૦/૨૦૨૨ ના ઠરાવક્રમાંકઃ૨ કરેલ ભલામણ સ્વીકારી શૈક્ષણિક વર્ષ ૨૦૨૨–૨૩ થી અમલમાં આવે તે રીતે બી.આર્કિટેકચર કોર્સનો પ્રથમ વર્ષનો અભ્યાસક્રમ મંજૂર કરવામાં આવે છે.

બિડાણ : ઉપર મુજબ

ક્રમાંકઃએસ/બી.આર્ક./સિલેબસ/૨૫૪૨/૨૦૨૨
તા.૨૦/૧૦/૨૦૨૨

કુલસચિવ

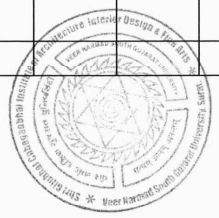
પ્રતિ,
૧) આર્કિટેકચર એન્ડ ડીઝાઈન વિદ્યાશાખા હેઠળની સંલગ્ન કોલેજોનાં આચાર્યશ્રીઓ.
૨) અધ્યક્ષશ્રી, આર્કિટેકચર વિદ્યાશાખા,
૩) પરીક્ષા નિયામકશ્રી, પરીક્ષા વિભાગ, વીર નર્મદ દ. ગુ. યુનિવર્સિટી, સુરત.

...તરફ જાણ તેમજ અમલ સારૂ.

B.ARCH
NEW SYLLABUS
&
EXAM SCHEME

SEMESTER - I Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
1		Basic Design- I	4		6	6	120	80	200		200	400
2		Architectural Design Studio - I	4		6	6	120	80	200		200	400
3		Building Materials and Construction - I	4	2	4	6	120	80	200	100	100	400
4		Architectural Graphics Skill - I	4	1	3	4	120	80	200	200		400
5		Sturctural Design System - I	2	2		2	60	40	100	100		200
6		Humanities - I	2	2		2	60	40	100		100	200
7		Communication Skills - I	2	2		2	60	40	100		100	200
8		Elective - I 1. Photography 2. Infographics 3. Workshop (wood, steel, POP, Clay, etc.) 4. Screen Printing 5. Sculpure 6. Leather printing	2			2	60	40	200	0	100	200
Total			**24**			**30**						**2400**



SEMESTER - II Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
1		Basic Design- II	4		6	6	120	80	200		200	400
2		Architectural Design Studio - II	4		6	6	120	80	200		200	400
3		Building Materials and Construction - II	4	2	4	6	120	80	200	100	100	400
4		Architectural Graphics Skill - II	4	1	3	4	120	80	200	200		400
5		Sturctural Design System - II	2	2		2	60	40	100	100		200
6		Humanities - II	2	2		2	60	40	100		100	200
7		Communication Skills- II	2	2		2	60	40	100		100	200
8		Elective - II 1. Photography 2. Infographics 3. Workshop (wood, steel, POP, Clay, etc.) 4. Screen Printing 5. Sculpure 6. Leather printing	2			2	60	40	100	0	100	200
Total			**24**			**30**						**2400**

SEMESTER - III Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
1		Architectural Design Studio - III	8	2	8	10	240	160	400		400	800
2		Building Materials and Construction - III	4	2	4	6	120	80	200	100	100	400
3		Sturctural Design System - III	2	2	2	4	60	40	100	100		200
4		Enviromental science- I	2	2		2	60	40	100	100		200
5		Survey and Leveling	2	1	1	2	60	40	100	50	50	200
6		History of Architecture - I	2	2		2	60	40	100	100		200
7		Building Services - I	2	2		2	60	40	100	100		200
8		Elective - III 1. Creative writting 2. Art Apriciation 3. Indic studies 4. Vastu shastra 5. IPDC : Integrated personality development Course 6. Vernacular Architecture	2			2	60	40	100	0	100	200
Total			**24**			**30**						**2400**

SEMESTER - IV Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva/ Practical	
1		Architectural Design Studio - IV	8	2	8	10	240	160	400		400	800
2		Building Materials and Construction - IV	4	2	2	4	120	80	200	100	100	400
3		Sturctural Design System - IV	2	2	2	4	60	40	100	100		200
4		Enviromental science- II	2	2		2	60	40	100	100		200
5		Computer application - I	2	1	3	2	60	40	100		100	200
6		History of Architecture - II	2	2		2	60	40	100	100		200
7		Building Services - II	2	2		2	60	40	100	100		200
8		Elective - IV 1. Creative writting 2. Art Apriciation 3. Indic studies 4. Vastu shastra 5. IPDC : Integrated personality development Course 6. Vernacular Architecture	2			2	60	40	100	0	100	200
Total			**24**			**30**						**24**

SEMESTER - V Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva/ Practical	
1		Architectural Design Studio - V	8	2	10	12	240	160	400		400	800
2		Building Construction and Services	4	4	2	6	120	80	200	100	100	400
3		Sturctural Design System - V	2	2	2	2	60	40	100	100		200
4		Behaviour science- II	2	2		2	60	40	100		100	200
5		Estimation & Costing	2	2		2	60	40	100	100		200
6		History of Architecture - III	2	2		2	60	40	100	100		200
7		Theory of Design	2	2		2	60	40	100	100		200
8		Elective - V 1. BIM 2. Comp. Design 3. Visulization Application 4. Valuation 5. Film Appreciation 6. Building performance & Compliances 7. Foregine Language (Spanish/Greek/French)	2			2	60	40	100	0	100	200
Total			**24**			**30**						**2400**

SEMESTER - VI Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva/ Practical	
1		Architectural Design Studio - VI	8	2	10	12	240	160	400		320	800
2		Advanced Building Construction	4	4	2	6	120	80	200	100	100	400
3		Project Management	2	2		2	60	40	100	100		200
4		Professional Practice - I	2	2		2	60	40	100	50	50	200
5		Building By-Laws	4	4		4	120	80	200	100		400
6		History of Architecture - IV	2	2		2	60	40	100	100		200
7		Elective - V 1. BIM 2. Comp. Design 3. Visulization Application 4. Valuation 5. Film Appreciation 6. Building performance & Compliances 7. Foregine Language (Spanish/Greek/French)	2			2	60	40	100	0	100	200
Total			**24**			**30**						**2400**

SEMESTER - VII Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Internal (50%) A			External (50%) B		
							Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva/ Practical	
1		Practical Training	24									2400
Total			24									2400

SEMESTER - VIII Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Internal (50%) A			External (50%) B		
							Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva/ Practical	
1		Architectural Design Studio - VII	10	4	10	14	300	200	500		500	1000
2		Hi-Tech Structures and Performance Analysis	4	2	2	4	120	80	200	100	100	400
3		Site Planning & Landscape	2	2	2	4	60	40	100		100	200
4		Professional Practice - II	2	2		2	60	40	100	50	50	200
5		Town Planning	4	2	2	4	120	80	200	100	100	400
6		Elective - V 1. Conservation 2. Disaster Managment 3. Barrier free Architecture 4. Sustainable Architecture 5. Internationalism in Architecture	2			2	60	40	100	0	100	200
Total			**24**			**30**						**2400**

SEMESTER - IX Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Internal (50%) A			External (40%) B		
							Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva/ Practical	
1		Architectural Design Studio - IX	10	4	10	14	300	200	500		400	1000
2		Research methods & Technical writing	4	4		4	120	80	200	100	100	400
3		Building Economics & Real Estate	4	2	2	4	120	80	200	100	100	400
4		Urban Design (Seminar)	2		4	4	60	40	100		100	200
5		Elective - IX (A) 1. Foregin Language 2. Temple ARchitecture 3. Ecology & Architecture 4. Architecture and Local Economy Development 5. Expressionism in Architecture 6. Iconic Architecture 7. Futuristic Architecture	2			2	60	40	100		100	200
6		Elective - IX (B) 1. Foregin Language 2. Temple ARchitecture 3. Ecology & Architecture 4. Architecture and Local Economy Development 5. Expressionism in Architecture 6. Iconic Architecture 7. Futuristic Architecture	2		2	2	60	40	100		100	200
Total			**24**			**30**						**2400**

SEMESTER - X Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B+C)
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Internal (50%) A			External (50%) B		
							Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva/ Practical	
1		Architectural Dissertation	24		30		360	240	1200		1200	2400
Total			**24**			**30**						**2400**

SEMESTER - I Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
1		Basic Design- I	4		6	6	30	20	50		50	100

Emphasis: Developing visual literacy and basic expressional skills that involve the ability to perceive, abstract and create as a process of the design of objects and spaces.

Contents: Principles of 2D and 3D composition and introduction of basic terminologies related to it, Introduction to the Colour theories, Elements of Composition, Explorations of various materials and medias, developing visual literacy through the process oriented exercises and lateral thinking.

Projects: Compositions of positive and negative, 2D compositions based on geometrical forms and other objects. Design exercises for developing abstract reasoning, model making and volumetric compositions.

References:

1. Ching, Francis D. K. - Form, Space and Order
2. Rasmussen, Stein Eiler - Experiencing Architecture
3. Berger, John - Ways of Seeing
4. Kamiya Takeo - A Guide to the Architecture of the Indian Subcontinent
5. Corbusier, Le - Towards New Architecture
6. Gill, Robert - Rendering with pen and ink
7. --- - Art in everyday life
8. Ruskin, Eugene - Architecture: Scale and proportion
9. Gill, Robert - Basic Rendering
10. Ching, Francis D. K. - Graphics in Architecture
11. De Bono, Edward - Lateral thinking

SEMESTER - I Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
2		Architectural Design Studio - I	4		6	6	30	20	50		50	100

Emphasis: Developing basic skill of expressions that involve the ability to perceive, abstract and create the design of objects and spaces. Introduction to the principles and elements of 'Design'

Contents: Principles of 2D and 3D composition, human scale, abstractions, sensory stimuli as components of architectural design; Introduction to Architectural Terminology.

Projects: Space making and place making, theme based compositions, volumetric studies, area studies, Literature Review

References:

1. Ching, Francis D. K. - Form, Space and Order
2. Rasmussen, Stein Eiler - Experiencing Architecture
3. Berger, John - Ways of Seeing
4. Kamiya Takeo - A Guide to the Architecture of the Indian Subcontinent
5. Corbusier, Le - Towards New Architecture
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7. --- - Art in everyday life
8. Ruskin, Eugene - Architecture: Scale and proportion
9. Gill, Robert - Basic Rendering
10. Ching, Francis D. K. - Graphics in Architecture
11. De Bono, Edward - Lateral thinking

SEMESTER - I Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Internal (50%) A			External (50%) B		
							Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
3		Building Materials and Construction - I	4	2	4	6	30	20	50	50	_	100

Emphasis : Understanding of basic building materials, basic building components in construction, building systems and related construction technology.

Content:

- Introduction to the various components of building like floors, roofs, openings, staircase etc.
- Study of basic materials of construction such as sand cement lime aggregates; brick stone their structural & physical behaviour with respect to its properties & application in building.
- Study of all the types of masonry in Brick and Stone construction
- Study of brick masonry.
- Understanding the concept of load bearing & framed structures & composite structures
- Study of building components such as foundations, walls, floors, openings etc .in Load bearing & framed structures.
- Forming of opening in various materials for the building types such as lintels arches etc.
- Introduction of basic foundations strip, pad etc

Projects: Study through practical site visits, presentations, case studies & workshop based on the application of theory to construction field.

Reference:

1. Mackey W.L -Building Construction, Vol -I,II,III,
2. Arora S.P. & Bindra S.P. -Building Construction
3. Barry .R - The Construction of Building
4. Cowan Henry J -Handbook of Architectural Technology
5. Allen Edward -Fundamentals of Building Construction

SEMESTER - I Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
4		Architectural Graphics Skill - I	4	1	3	4	30	20	50	50		100

Emphasis: Developing skills for representation of geometric forms and compositions as a tool of design. Developing skills for using Computer Aided Design Software's as a tool for design representation.

Contents:

Manual

Familiarization with drawing materials and equipments.

Construction, use and composition of different types of lines in drawing preparation.

Lettering and architectural abbreviations

Basic principles of geometry and its construction.

Orthographic projections of points, lines, planes and solids.

Understanding of multi-view drawing system.

Sections of solids

Computer

Familiarization with different Computer Aided Design software's, its use in Architectural Representation.

Application of principles of technical representation and Construction of Different types of lines, shapes, geometry & its compositions through software like AutoCAD.

Introduction to Software's like PowerPoint, Photoshop, Google Sketch up as useful tool to develop presentation skills.

References:

1. Leaseua, Paul: Graphic Thinking for Architects and Designers
2. Ching, Francis D. K. - Graphics in Architecture
3. Ching Francis D.K. -Design Drawing
4. Rendow Yee- Architectural Drawing
5. Bhatt, N. D. - Engineering Drawing
6. Architectural Drafting & Design-Alan Jefferis & David A. Madsen
7. Software User's Guide

SEMESTER - I Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
5		Sturctural Design System - I	2	2		2	30	20	50	50		100

Emphasis Forces - Force System - Equilibrium - Resultant

Contents

1. Introduction:

Introduction Fundamental principles of Engineering Mechanics, Newton's laws of motion, aw of parallelogram of forces, principle of transmissibility, concept of rigid body, particle.

2. Natural forms :

Understanding Nature- a creative base for understanding structure, correlation between natural & manmade structure.

3. Forces :

Introduction to types of forces, Static loading, Time dependent loading, Impact loading, Cause & effect of various forces like Dead load, Imposed load, Wind load, Earthquake load, Hydrostatic load, erection force etc on building. Effect of physical form on load transfer i.e. Forces acting through point, distributed forces on line, & area.

4. Force systems :

Free body diagram, Resolution of forces into components, Types of force systems, concurrent, coplanar, nonconcurrent etc. forces in plane & space. Calculation of resultant for coplanar parallel & coplanar concurrent force system, calculation of moment.

5. Equilibrium:

Introduction to Equilibrium, Conditions of equilibrium for the coplanar parallel & coplanar concurrent force system, Types of supports, Determinacy, & Stability, Basic behaviour of elements in load transfer i.e. bending, torsion, shear, tension, compression etc.

6. Beam :

Introduction as a flexural element, simply supported, overhanging & cantilever beams, determinacy, calculation of Reaction at supports for beam, Application.

7. Truss :

Introduction, Types of truss, Analysis of a plane truss. Use of graphical method. Introduction to space truss, Application.

Project

1. Tutorial based on course contents.
2. Making of models based on- stability & load transfer concept.
3. Creative exercise based on course content.

Reference

1. Bear & Johnston , " Vector mechanics for engineers- statics"
2. Desai & Mistry, "Engineering Mechanics, statics & Dynamics."
3. Junarkar & H.J. Shah, "Applied Mechanics."
4. Jeffery Cook, "Seeking structure from nature."

SEMESTER - I Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
6		Humanities - I	2	2		2	30	20	50		50	100

Emphasis: Basic concepts of sociology; Social institutions and their roles; some social theories and perspectives on society

Contents:

- Introduction, Scope and Approaches to Sociology and its models - Evolutionism, Structural Functionalism, Conflict, Symbolic Interactionism
- The Family as a Social Unit
- Religion and Social Perspectives
- Urbanisation as A Social Phenomenon; development of cities, Impact, etc
- Social organizations - Typology, characteristics, structure, approaches like Classical, Determinist, Human Relational
- Theories of Social change like Evolutionism, Diffusionism, Functionalism, Conflict etc
- Social Stratification

Reference

- Social processes - C. H. Cooley
- The social construction of reality - Berger and Luckman
- Society and Knowledge - Garden Child
- Mind, Self and Society - Margaret Mead
- Social change- William Ogburn

Elements of Social Organization - R Firth

- Cities in Evolution - Patrick Geddes

SEMESTER - I Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
7		Communication Skills - I	2	2		2	30	20	50	50		100

Emphasis: Development of listening, oral and written skills; Styles and formats of written communication; introduction to alternative media like posters, collages; analyzing texts

Contents:

- Effective communication of ideas
- Formal and Informal styles of writing
- Critical appraisals of media messages, texts
- Preparation of some alternative media materials
- Note taking, summary and précis preparation
- Non verbal/body language in interpersonal communication

References:

1. Heaton, J.B. Language testing, Modern English Publications, 1982
2. Hedge, Tricia. Writing, Oxford University Press,1988
3. Saraswathi, V. Organised Writing, Orient Longman, 1979
4. Ur, Penny. Teaching Listening Comprehension, Cambridge University Press, 1984
5. Ur, Penny. Discussions that work, Cambridge University Press, 1991
6. Brown, G. and Yule, Effective Communication skills, Cambridge University Press, 1983

SEMESTER - I Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
8		Elective - I 1. Photography 2. Infographics 3. Workshop (wood, steel, POP, Clay, etc.) 4. Screen Printing 5. Sculpure 6. Leather printing	2			2	50		50	0	50	100

SEMESTER - II Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
1		Basic Design- II	4		6	6	30	20	50		50	100

Emphasis: Introduction to the principles design like function and form, scale and proportions, colour and texture, materials and surfaces

Contents: Principles of Design, Application of colour theories and cycles, Study of various textures and colours with its inherent expressions and effects, Study of natural forms like leaf, shell, tomato etc., Application of various materials like Clay, Paper Mache, Timber, Steel etc, Application of various graphic techniques and development of abstract reasoning

Projects: Theme based compositions, volumetric studies, Literature Review

Theory of Design

SEMESTER - II Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
2		Architectural Design Studio - II	4		6	6	30	20	50		50	100

Emphasis: Introduction to the fundamentals of architectural design like form, space, scale and proportions, functions and anthropometrics, structure and materials, sensory qualities and developing an understanding of architecture as a process of creating an integrated functional, structural and spatial system.

Contents: Anthropometric studies, human physiology and ergonomics, understanding of interrelationships of functions, Design parameters like spatial order, basic modulation, space-structure-form correlation, principles of abstractions, spatial scales, ordering mechanism, evolution of form.

Design parameters like site context, functional requirements and inter-relationships, environmental conditions, evolution of form based on structural modules. Structure as an ordering mechanism, resolution of built form with functional requirements as a major determinant.

Projects:

Part 1

Detailed Study of Anthropometrics, Small scale Space / volume design exercise, Design of small structures and spaces with specific functions, theme based compositions, volumetric studies, area studies, Literature Review.

Part 2

Design of a small space of uni-functional nature e.g. Cafe, Display gallery, etc. With relevant case studies, literature review, models as analytical tools.

SEMESTER - II Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
3		Building Materials and Construction - II	4	2	4	6	30	20	50	50		100

Emphasis: Understanding the construction technology involved in building components.

Content:

- Study of basic materials of construction such as wood, metal, glass & plastic etc. their structural & physical behavior with respect to its properties & application in building.
- Types of footings and shallow foundations.
- Walls:

1. Different types of walls and their Construction details
2. Various types of wall finishes, like plastering, painting, cladding, jointing, & pointing etc and their applications.

- Staircases:

1. Types & construction details of staircases in different materials.

- Openings:

1. Different types of doors, windows, ventilations and skylights in different materials. and their operational and fixing details.

- Types & details of building elements like weather shed, balcony, canopy & pergolas.
- Study the various RCC construction equipment.
- Study of joinery in timber & metal.

Projects: Study through practical site visits, presentations, case studies & workshop based on the application of theory to construction field.

Reference:

1. Mackey W.L -Building Construction, Vol -I,II,III,
2. Arora S.P. & Bindra S.P. -Building Construction
3. Barry .R - The Construction of Building
4. Cowan Henry J -Handbook of Architectural Technology
5. Allen Edward -Fundamentals of Building Construction

SEMESTER - II Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
4		Architectural Graphics Skill - II	4	1	3	4	30	20	50	50		100

Emphasis: Developing skills for preparing two dimensional drawing set as a tool to represent the design.

Developing skills for 3-dimensional visualization of objects/buildings & it's representation on 2-D media.

Developing model making techniques through principles of solid geometry

Contents:

Manual

Developing skills for reading and perception of Architectural Drawings through study and drafting of ready drawing sets.

Developing measurement skills through measuring a small unit and preparation of measure drawing set for the same.

Introduction to rendering techniques and preparation of 2D Presentation drawings.

Introduction to Inking media.

3-D representation of solids through concepts of axonometric projections.

Surface development of solids and lateral surfaces in sections.

Use of development of surface technique to create models.

Computer

Introduction to Computer Aided Design Softwares such as Auto CAD useful to prepare 2D technical as well as 3D and presentation drawings.

References:

1. Leaseua, Paul: Graphic Thinking for Architects and Designers
2. Ching, Francis D. K. - Graphics in Architecture
3. Ching Francis D.K. -Design Drawing
4. Rendow Yee- Architectural Drawing
5. Bhatt, N. D. - Engineering Drawing
6. Architectural Drafting & Design-Alan Jefferis & David A. Madsen
7. Software User's Guide

SEMESTER - II Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
5		Sturctural Design System - II	2	2		2	30	20	50	50		100

Emphasis

Simple Stress - strain, Shear force & Bending moment diagram

Contents

1. Simple stresses & strain :

Introduction, behaviour of material under loading, stress & strain due to axial force, Hook's law, working stress, Ultimate stress, factor of safety, permissible stress, lateral strain,.

2. Shear force & Bending moment diagram for Determinate Beams :

Introduction to shear force, bending, calculation of Shear force & bending moment for beams subjected to various types of load combination i.e. point load, distributed load with various support condition like simply supported, overhanging, Cantilever etc. Relationship between bending moment & shear force diagram, Determination of point of contra flexure, Application of Shear force & bending moment diagram.

3. Shear force & Bending moment diagram for Determinate & indeterminate

Plane Frame & Arches :

Behaviour of Statically determinate & Indeterminate plane frames subjected to gravity & lateral load. Basic understanding of shear force & bending moment diagram for the same. Behaviour of three hinges & two hinge Arch under point load & uniformly distributed force. Understanding of Bending moment diagram for Arches.

4. Distributed forces :

Determination of Centroid, Calculation of Centre of gravity for line & area element, calculation of Moment of inertia of area element, use of parallel axis theorem.

Project

Tutorial based on course contents.

Reference

1. Junarkar & H.J. Shah, "Mechanics of structures, vol - I & II."
2. E.P. Popov, "Mechanics of materials."
3. R.K. Bansal, "A text book of strength of materials."
4. R.S. Khurmi, "Strength of materials."
5. S. Ramamrutham, "Strength of materials."
6. Desai & Mistry, "Engineering Mechanics, statics & Dynamics."

SEMESTER - II Marking Scheme (NEW)												
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
6		Humanities - II	2	2		2	30	20	50	50		100

Emphasis:

1. To introduce students to elementary & basic concepts in psychology.
2. To help develop an interest in understanding societal attitudes to art, architectural forms.
3. To familiarize students with current theories of social behavior.

Contents:

Conceptual approaches, Scope & Methods of psychology.

Perception, Perceptual constancies and Awareness

Personality, types and its Assessment

Human Motivation & Emotion

Conflict, Adjustment and Mental health

Attitude, Aptitude & Intelligence

References:

Allport, F.H., Social Psychology , Houghton Miflin, 1992

Carterette, E.C., and Friedman, M.P. (eds) Handbook of Perception , Academic Press, 1974

Hilgard, Ernest, and Atkinson, Richard, Introduction to Psychology, Oxford & IBH , 1975

SEMESTER - II Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
7		Communication Skills-II	2	2		2	30	20	50	50		100

Emphasis: This elective aims to equip students with communication skills based on modern communicative methods. Situational practice will be given. A combination of faculty lectures, situational practice, student presentations will comprise class activities.

Contents:

Technical Communication and General Communication.

Verbal and non-verbal communication (kinesics). Components of Non-verbal Communication, Barriers to effective communication, (Noise in oral and written communication) Communication across cultures.

- Effective presentation strategies.

Defining purpose, analysis of audience and locate, organizing contents. Preparing an outline of the presentation. Visual aids, nuances of delivery, Body language and effective presentation.

- Interviews

Introduction, General preparations for an interview, Types of questions generally asked at the interviews. Types of interviews, Importance of nonverbal aspects.

- Group Discussions

Introduction, Group discussions as a part of the selection process, guidelines for group discussion. Role functions in group discussion.

- Paragraph Development,

Introduction, Topic sentence and supporting sentences. Attributes of a good paragraph. Types of paragraphs.

- Effective Reading Skills

Purpose of reading, skimming and scanning. Tips for improving comprehension skills.

- Grammar and Vocabulary

Tense and the concept of Time. Passive Voice, Conditionals Prepositions, Concord. Idioms, Confusables, one-word substitutes, homonyms, homophones

References

- Krishna Mohan and Meera Banerji, "Developing Communication skills", Mc.Millan Co., Publication. 1990
- N. Krishnaswami and T. Sriram, "creative English for Communication", Mc.Millan Co., Publication. 1992.
- Meenakshi Raman and Sangeeta Sharma, Technical Communication; Principles and Practice, Oxford University Press.

SEMESTER - II Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme					Total (A+B)
							Internal (50%) A			External (50%) B		
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	
8		Elective - II 1. Photography 2. Infographics 3. Workshop (wood, steel, POP, Clay, etc.) 4. Screen Printing 5. Sculpure 6. Leather printing	2			2	50			0	50	100

1. Photography:

Emphasis

- To create understanding and scope of professional use of photography techniques explore the potential application in field of architecture
- Use of different media and techniques as tools to develop visual and perceptual skills to develop observation and representation through camera.

Contents

- Introduction to various types of cameras, lenses, filters and equipments
- Use and importance of shutter speed, aperture, field of depth
- Importance of framing composition and frames of reference
- Various types of photography such as nature, architecture, product, object, model, interior, urban, landscape etc
- Presentation and display of the photographs, printing and developing
- Use of computer tools, software for photographic presentation

Projects

On-site photography of an object, material, space, building, landscape, to understand the above theory.

References

- Adrian Holloway (1981) The Handbook of Photographic equipment and techniques. Pan Macmillan
- Amphoto (1980) Photo topics and techniques. Eastman Kodak Company
- Beaumont and Nancy Newhall (1958) Masters of Photography. New York, George Braziller Inc
- Joseph W Molitor (1976) Architectural Photography. John Wiley and Sons Inc.
- Julian Calden and John Garrett (1999) The 35 mm Photograph Handbook. Pan Books

2. Infographics

Emphasis: Develop visual esthetics and style.

Content: Introduction to fundamentals of Graphic Design. Developing basic visual problem-solving and conceptual development skills and awareness.

Projects: working with various mediums to express simple concepts in graphical form. Analyzing presentation techniques of master architects and incorporating them in design.

SEMESTER - III Marking Scheme (NEW)														
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)=C
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
1		Architectural Design Studio-III	8	2	8	10	30	20	50	0	50	July	100

Emphasis: Evolving an appropriate design for specific users and context

Contents: Program formulation on the basis of functional needs and users' requirements, understating site context, environmental conditions, social life and cultural values as determinants of architectural design, developing conceptual positions based on the interpretations of the program, developing systems of construction and material details relevant to the conceptual positions, development of functional and aesthetical construction details and fenestration design

Projects: Design of a dwelling unit based in a specific context, relevant case studies and their analysis, area volume diagrams, literature review, exercises and time problem to develop innovative thinking, exercises related to relevant or appropriate construction details and materials

References:

1. Lieklider, Health - Architectural space
2. Analysis of the Precedents
3. Todd, Kim - Site, Space and Structure
4. Miers , Pierr Von - Elements of Architecture from form to place
5. Blaser, Werner – Tadao Ando: Architecture of silence

SEMESTER - III Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
2		Building Materials and Construction-III	4	2	4	6	30	20	50	50	0	3 Hrs	100

Emphasis: Understanding the construction technology involved in building components.

Contents:

o Introduction to R.C.C as material , their structural & physical behaviour with respect to its properties & application in building

o Roofs:

Introduction to basic types of roofs such as flat, pitched and curved.

- Basic understanding of flat roofs and its coverings.
- Construction details & materials involved in various types of pitched roof system.
- Types of roof coverings and their application.
- Basic understanding of curved roof structures.

o Floors:

Construction details & materials (timber & R.C.C) involved in various types of floors

Different floor finishes and their application.

o Study of various construction equipments and formwork relevant to the components.

Projects: Study through practical site visits, presentations, case studies & workshop based on the application of theory to construction field.

References:

1. Mackey W.L -Building Construction, Vol -I,II,III,
2. Arora S.P. & Bindra S.P. -Building Construction
3. Barry .R - The Construction of Building
4. Cowan Henry J -Handbook of Architectural Technology
5. Allen Edward -Fundamentals of Building Construction
6. Roof construction Manual

SEMESTER - III Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
3		Sturctural Design System-III	2	2	2	4	30	20	50	50	0	2 hrs	100

Emphasis : : Analysis of Structures & Design of R.C.C. elements & Load bearing Structures.

Contents

1. Bending stress :

Theory of simple bending, Assumptions, calculation of bending stresses for simply supported beams & cantilever beam of various cross sections., beams of uniform strength.

2. Shear stress :

Calculation of shear stress for simply supported & cantilever beams of various cross sections like T, L, I, O, Rectangle, Hollow sections etc.

3. Direct & Bending stress :

Combined direct & bending stresses, eccentric loading, middle third rule, Core & kernel, application,

4. Analysis of Column :

Theory of column under axial loading, behaviour of column, Slenderness ratio, short, medium & long column, buckling of column, effective length,Calculation of load caring capacity using Euler's & Rankine's formulae.

5. Shear force & Bending moment diagram for Indeterminate Beams :

Calculation of Shear force & bending moment for Fixed & Continuous beams using Moment distribution method. Drawing Shear force & bending moment diagrams, Interpretation of diagram & application.

6. Deflection of Beams:

Introduction to deflection, boundary condition, Deflection of beams for simple cases like simply supported & cantilevers with full uniformly distributed load & central point load.

7. Introduction to IS code :

Introduction to various load & load combinations, Use of IS code for loads,

Introduction to 456-2000 for design of RCC element

8. Methods of design:

Introduction to limit state, working stress & ultimate state methods of design,

Determination of Moment of resistance of homogeneous beams of rectangular ,

under reinforced, over reinforced & balanced sections by limit state method.

9. Analysis & design of Singly reinforced sections using Limit state method:

Analysis & design of singly reinforced sections of beams, Design criteria for deflection, shear, development length & anchor length.

10. Design of Slabs :

Design of slabs spanning in one & two direction. Introduction - Behaviour & detailing of Cantilever slab, continuous slab , Continuous beam & waist slab.

11. Load bearing structure subjected to gravity & seismic load :

Introduction to load bearing structure, understanding of various parameters like material, size, slenderness ratio, effective height & length, opening etc. & its impact on the strength & stability of load bearing structure. Use of nomogrammes to find the thickness of load bearing wall. Calculation of thickness of wall of simple case. Behaviour of wall, column , Arches & Buttresses. Behaviour of load bearing structure under the earthquake. Designing & detailing of brick masonry structure for earthquake.

Project

1. Tutorial based on course contents.
2. Design of various elements with drawing based on course content.
3. site visits
4. Study of structural grid- case study/ Design for locating position of beam, column. Understanding of supporting various elements- slabs , beams & columns as per architectural drawing.
5. Case study of load bearing structure.

Reference:

1. Junarkar & H.J. Shah, " Mechanics of structures , vol - I & II."
2. E.P. Popov, " Mechanics of materials."
3. R.K. Bansal, " A text book of strength of materials."
4. R.S. Khurmi, " Strength of materials."
5. S. Ramamrutham, " Strength of materials."
6. B.C.Punamia, "Analysis of structure."

SEMESTER - III Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
4		Enviromental Science-I	2	2	0	2	30	20	50	50	0	2 hrs	100

Emphasis: To bring about awareness of a variety of environmental concerns and to create a pro-environment attitude and behavioral pattern in society based on sustainable lifestyles.

Contents:

Unit 1: Multidisciplinary nature of environmental studies

Unit 2: Natural Resources: Renewable and non-renewable resources Unit 3: Ecosystems

Unit 4: Biodiversity and its conservation Unit 5: Environmental Pollution

Unit 6: Social Issues and the Environment

Unit 7: Human Population and the Environment Unit 8: Field work

References:

Barucha, E., 2004. Text Book Of Environmental Studies For Undergraduate Courses

UGC Univ. Press Joseph, Benny, 2005.

Environmental Studies. Tata McGraw Hill

Kaushik, A. and Kaushik, C.P., 2010. Basics of Environment and Ecology.

New Age Int. Publishers Agarwal, K.C., 2001

Environmental Biology. Nidhi Publ. Ltd. Bikaner Brunner, R.C., 1989

Hazardous Waste Incineration. McGraw Hill

SEMESTER - III Marking Scheme (NEW)														
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Internal (50%) A			External (50%) B			
							Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
5		Survey and leveling	2	1	1	2	30	20	50	50	0	2 hrs	100

Emphasis

Understanding of various methods of surveying & introduction to property documents.

Contents

1. Introduction of subject, basic terms, definition and terminologies. Classification and Division of survey, units of measurements.

2. Chain Surveying:

Linear measurement, principle of chain surveying, frame work, instruments used, field work.

3. Compass Survey:

Introduction to traversing, principle used, types of meridian, WCB & RB system.

4. Plane Table Survey :

Underlying principle, orientation techniques, Instruments used in plane table surveying, radiation, intersection, traversing & resection methods, plotting in field.

5. Methods of Area Measurements:

Introduction to various methods of measuring area between chain line & boundary, calculation of area using trapezoidal & Simpson's formula, use of plannimeter to calculate area. Other approximate methods.

6. Introduction to Leveling & Contour:

Introduction to leveling & RL, How to get the RL.

Understanding of contours, basic characteristics & uses of contour, study of contour map- identification of ridge line, valley line, etc. Calculation of volume for cutting & filling using contour map.

7. Introduction to Total station:

Introduction to the instrument & working methodology.

8. Setting out of Building :

Setting out of building on the ground- Methods for setting out buildings by horizontal and vertical control.

9. Introduction to GIS :

Introduction to various terminology & reading of map.

Project

Introduction to various property documents like 7/12, 8/A, 6/A, city survey plan, Land records, TP plan- FP no & RS no. etc.

Reference

1. "Surveying- 1", Dr. B. C. Punamia
2. "Surveying" , Kanetkar and Kulkarni
3. "Surveying"- Arora.

SEMESTER - III Marking Scheme (NEW)														
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
6		History of Architecture-I	2	2	0	2	30	20	50	50	0	2 hrs	100

Emphasis:

1. To introduce students to significance of tangible and intangible values shaping the architecture.

2. To help develop an interest in understanding History of architecture of India and West leading towards Architectural Designers of tommorow.

Contents:

1. Theory

Unit -01,02 : Understanding the significance of the subject in B.Arch programme. Understanding Timeline of World History ,its Basic Divisions - Classical Antiquity ,Middle Ages & Modern Period.**Also,adapting the notion of Conserving over creating in 21st Century** and lastly

Unit - 03 : Evolution of mankind & settlements.

Unit - 04,05 : Story of Civilizations,Role of any two river valley civilizations in shaping the millenium -Egyptian Architecture & Indus valley Civilization

Unit – 06,07 : Greek & Roman Architecture

Unit – 08: Introduction to Middle ages - Byzantine Architecture.

2. Exercises

Exercise-1 : Chart indicating World Time line and Logographic formations of architecture of whole in a nutshell from Unit-01 and figuring out the criteria of outstanding Universal values from Unit-02

Exercise-2 : Analytical Tabular formats and sketches from Unit-03

Exercise-3 : Analytical Tabular formats and sketches from Unit-04 & 05

Exercise-4 : Analytical Tabular formats and sketches from Unit-06 & 07

Exercise-5 : Solving Question Bank w.r.t. Unit-08

3. Methodology /Outcome

1.Understanding the evolution of various historical styles dominating architecture till the date.

2.Understanding the construction technology and properties of materials deployed marking its overall architectural character.

3.Understanding the significance of the subject in Architectural Design.

References:

A.Books

2. World History of Architecture-Muffet
3. A global history of Architecture - Francis D.K. Ching

B. Journals (N.A.)

C. Projects (N.A.)

D. Websites (N.A.)

SEMESTER - III Marking Scheme (NEW)														
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
7		Building Services-I	2	2	0	2	30	20	50	50	0	2 hrs	100

Emphasis: Introduction to all basic Building Electrification design, services and related appliances.

Contents:

o Light and its sources, the visual field, day lighting and its types, day lighting criteria

o Artificial lighting, kind of lighting, illumination, calculations for lighting levels

o Types of electricity, terminology, lighting accessories, protective devices

o Electric power supply system from generation to customer, single phase, three phase, and electrical distribution in a building from main distribution board to switch board.

o Lighting design of a residence

Projects:

1. On site studies
2. Market surveys of different electrical cables and fixtures, electrical accessories.

Reference

1. Time saver standards for architectural design data by Calaendar
2. Heating cooling, lighting by Norbert Lechner
3. Electrical wiring estimating and costing-Uppal

SEMESTER - IV Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Internal (50%) A			External (50%) B			
							Term work /	Jury / Viva	Total	Theory	Jury / Viva	Duration	
1		Architectural Design Studio-IV	8	2	8	10	30	20	50	0	50	Jury	100

Emphasis: Determinants of space design for a group of people sharing common values and similar culture in given contexts and develop responsive built environment.

Contents: Identification of the cultural factors of space making such as notion of privacy and territoriality, family structure and hierarchy,gender roles, occupational associations,traditional values and their continuity etc., Interpretations of socio-cultural factors in the built form in terms of spatial organization, orientation, open, semi open and closed spaces correlation, scales and proportions etc., climate and topography, local construction system and use of materials, at housetorm wel as well as settlement level . Expressionism is utmost important with strong analytical skills.relevant case studies and their analysis, literature review, exercises related to relevant or appropriate construction systems and materials

Projects: Design of a dwelling-cluster and neighborhood in a specific community and context. The cluster may be comprising of 20 to 30 house norms with indigenous community spaces to be shared and celebrated.

Emphasis: Learning application of basic principles in architecture and other visual practices.

Contents: Study of a building, graphics, painting or a movie to derive understanding of principles applied.

References:

1. Rapoport, Amos: House Form and Culture
2. Rudofsky, Bernard: Architecture without Architects
3. Oliver, Paul: EVAW
4. Joglekar, M. N.: Contemporary Architecture in India
5. Mc Camant & Durrett: Co-housing
6. Bhatia, Gautam: Life, works and writings of Laurie Baker
7. GDCR

SEMESTER - IV Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
2		Building Materials and Construction-IV	4	2	2	4	30	20	50	50	0	3 hrs	100

Emphasis: Soil property and specialized foundations.

Contents:

1. Soil investigation, its properties & its application to foundation design.
2. Study of specialized deep foundation including raft, piles ,caissons & cofferdams
3. Study of retaining walls.
4. Study of Shoring, shuttering, scaffolding & underpinning.
5. In depth study of construction stages and application of technology as a whole for any building.
6. Detail Study of supporting temporary structure & stages.

Study through practical site visits, presentations, case studies & workshop based on the application of theory to construction field.

Reference

1. Mackey W.L -Building Construction, Vol -I,II,III,
2. Arora S.P. & Bindra S.P. -Building Construction
3. Barry .R - The Construction of Building
4. Cowan Henry J -Handbook of Architectural Technology
5. Allen Edward -Fundamentals of Building Construction

SEMESTER - IV Marking Scheme (NEW)														
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
3		Sturctural Design System-IV	2	2	2	4	30	20	50	50	0	2 hrs	100

Emphasis Introduction to steel as an Design element.

Content:

1. Introduction to IS code :

Introduction to IS -800 for steel structure.

2. Rolled Steel sections :

Study of IS Rolled steel sections & steel table.

3. Design of a simple roof truss :

• Steel trusses, its types, geometry, spans, pitches, spacing etc.

• Various loads on a roof truss. i.e. Dead, Imposed & Live

• Analysis & Calculation of Dead load, Live load & wind Load

• Analysis of a truss under various loads and Design of a truss members

4. Members subjected to axial Tensile load :

Analysis and Design of a regular & built up steel sections subjected to an axial tensile load

5. Members subjected to axial Compressive load :

• Analysis and Design of a regular & built up steel sections subjected to an axial compressive load.

• Design of regular and built up steel columns.

• Lacings & battening of built up columns.

6. Members subjected to transverse load:

Analysis and Design of steel regular & built up sections subjected to bending i.e. beams .including analysis and checks for deflection and shear.

7. Design of Footing :

• Analysis & Design & detailing of slab based footing.

• Study of behaviour & detailing of Gusseted based footings.

Project : 1. Analysis & design of a simple elements with detailing based on course content.

2. Site visits & case studies of steel structure.

Reference

1. L.S.Negi, " Design of steel structure."
2. A.S. Arya & J.L. Ajamani, "Design of steel structure."
3. Kazmi & Jindal, "Design of steel structure."
4. INSDAG publication, " Teaching resources for steel design."
5. IS 800, " Design of steel structure."
6. IS 875 –1987, Part I to V.
5. IS 456-2000, " design of RCC elements."
6. IS 875 -1987, Part I to V.
7. IS 13828-1993, " Improving E.Q. resistance of low strength Masonry building-Guidelines."
8. IS 13827-1993, " Improving E.Q. resistance of earthen buildings, Guidelines."
9. National Building code of India.

SEMESTER - IV Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
4		Enviromental Science-II	2	2	0	2	30	20	50	50	0	2 hrs	100

Emphasis: Understanding the elements of climate and how architecture responds to them architecture in order to develop bioclimatic design in buildings.

Contents: Climate factors: Elements of climate, climatic types and patterns, climatic data, measurement and units; characteristic influences on vernacular buildings; climate analysis software Solar control: Solar geometry and sun path; site planning and solar envelopes; building massing and open space exposure; types of shading devices for building fenestration; shading design software.
Daylight design: Principles of day-lighting, architectural integration in different building types; daylight quality; sky view factor and daylight factor; daylight design software. Bioclimatic Design standards; Building byelaws related to day-lighting and natural ventilation

Reference: Givoni, B., Man Climate and Architecture Krishan, A., Climate Responsive Architecture. Olgyay & Olgyay, Design with Climate, Koenigsberger, Ingersoll, & Mayhew, Manual of Tropical Housing and Building,
Lam, W., Sunlighting as Formgiver for Architecture. Van Nostrand Reinhold Company
Baker, N. & Steemers, K., Daylight Design of Buildings

SEMESTER -IV Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
5		Computer Application-I	2	1	3	2	30	20	50	50	0	2 hrs	100
Emphasis	Introducing basic computer skills as relevant to the architectural profession and to bring all students from different backgrounds up to a common level level of computer proficiency.												
Contents	Word processing: basic templates for creating text documents, editing, formatting, spelling/grammar check, dictionary and thesaurus, page layout, fonts, indentation, inserting tables and images, document review and annotation in software like MS Word. Image processing: basic image sourcing, editing and insertion for desktop publishing in Adobe Photoshop or similar software. Simple exercises in to 2D CAD software (AutoCAD/Revit) specifically for proficiency of, drawing/editing objects, text, dimensioning, making and inserting blocks, etc. and an understanding of units settings, scale, limits, line type, line weight, layers, colours, and print commands. **3D Visualization: Sketch Up software.** Basic exercises in 3D CAD software (AutoCAD/Revit). Understanding the co-ordinate system, 3D primitives, solid modeling and surface modeling.												

SEMESTER - IV Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
6		History of Architecture-II	2	2	0	0	30	20	50	50	0	2 hrs	100

Emphasis: Evolution of the built environment or human habitat as a complex and multilayered synthesis of 'culture, climate and construction'

Contents: Study of spatial order, structure and materials,construction techniques, articulations and meanings in the built forms at various scales of settlements, institutions and dwellings in the following time-period.

Time Period: 3rd to 13th Century AD

A)Indian Temple Architecture

1.1 Introduction to Indian Temple Architecture,its significance.
1.2 Understanding the architecture of Temples listed under UNESCO World Heritage Sites.
1.3 Introduction to Basic Elements of Space forming a Hindu temple.
1.4 Understanding the significance of Vaastu Purush Mandala in Temple Architecture.
1.5 Architectural characteristics and planning of a typical temple Layout and Design as per this styles: 1.5.1 Nagara Style
1.5.2 Dravidian Style
1.5.3 Vesara Style
1.6 Jain Temple Architecture / Palace Architecture : An overview

B)Western : Architecture of Middle Ages.

2.1 Byzantine Architecture
2.2 Romanesque Architecture
2.3 Gothic Architecture

Projects Task:01-Understanding Elements of space forming a hindu Temple and concept of Vastu Purush Mandala w.r.t Unit-1.3 & 1.4 through theoritical quesions
Task:02 -Difference between the above mentioned three styles w.r.t 1..1,1.5.2 & 1.5.3
Task:03- Group Exercise of Live Case-study of a Hindu Temple of any one style
Task:04- Group Exercise of Live Case-study of a Jain Temple of any one style
Task:05-Literature study of given temples in detail with many sketches.
Task:06-Literature study of given basilica w.r.t Unit 2.1,2.2 & 2.3 through sketches.

Reference

- Meaning in Western Architecture - Christian Norberg-Schulz
- A History of Architecture - Sir Banister Fletcher
- Architecture Through the Ages - Talbot Hamlin
- Architecture : From Prehistory to Post-Modernity - Trachtenberg and Hyman
- Early India: From the origins to AD 1300 - Romila Thapar
- The Hindu Temple (Vol 01 and 02) - Stella Kramrisch
- Hindu Architecture - Henri Sterlin
- Indian Architecture - Adam Hardy
- The History of Architecture in India - Christopher Tadgell
- Indian Architecture (Hindu and Buddhist) - Percy Brown
- Living Architecture Series - Architecture of the World: Hindu India, Romanesque,Gothic
- Graphic History of Architecture. - John Mansbridge

SEMESTER - IV Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
7		Building Services-II	2	2	0	2	30	20	50	50	0	2hrs	100

Emphasis: Introduction to all basic building services with regards to Water supply, Sanitation, and storm water drainage

Contents:

1. Water Supply:

- Sources of water, Water treatment techniques,
- Requirements of water supply to different types of buildings,
- modes and methods of conveyance of water, fixtures and appurtenances, distribution of water, methods of distribution, different distribution systems and their principles of layout,
- design of municipal water distribution systems and at the project level distribution system, underground and overhead water tanks.
- Brief description of rainwater harvesting and water table recharging techniques.

2. Sanitation and Drainage:

- Refuse, different form of refuse: garbage/solid waste, sullage, toilet waste, storm water, their collection and disposal systems. General principles of drainage.
- Drainage layout for building premises, kitchen, utility and toilet layouts, fixtures and fittings; W.C. flushing valves, flushing tanks, wash basins, bathing accessories.
- Types of traps: floor traps. Gully traps etc; manholes, grease chambers, curb inlets and gutter inlets, inspection chambers, intercepting traps.
- Ventilation of drains and sewers, principles of design of sewer lines, longitudinal sections of drains.
- Drainage in non municipal areas, soak wells, septic tanks
- Rain water drainage pipes, spouts, sizing of rain water pipes, storm water drainage system.
- Sustainable techniques in storm water disposal planning: at the project level, at the city level
- Eco friendly Sewage treatment techniques: biogas plants, sewage treatment methods
- Specialized water supply and drainage requirements: swimming pools, basement level supply and disposal, terrace gardens supply and drainage etc.

3. Vertical transportation

- Lifts, grouping of lifts, return-travel time, design of lift well, carrying capacity, installation requirements.
- Design of specialized lifts for heavy loads
- Concept of moving walks and escalators and their design concerns.

4. Fire safety in Buildings

- Theory of combustion
- Spreading of fire within the building and surrounding premises
- Active and passive means to control fire
- Study of fire regulations
- Fire extinguishing systems
- Fire resistance of different building materials
- Fire escapes

5. Air conditioning

- Different systems in current use from chilled water cooling systems to air handling package unit etc; their installations requirements and demand in building layouts.
- Supply air, return air ducting systems, their layouts and requirements along with building systems.

6. Acoustics

- Properties of sound, process of hearing, behavior of sound, acoustics for various spaces/ functional areas, noise control, outdoor and indoor sound input/output systems, noise control of building materials, prediction methods and calculations, noise reduction, properties of materials for sound insulation, testing, room acoustics, reverberation time in functional areas.

Reference

1. On site studies
2. Market surveys of different water supply and drainage pipes, fittings and fixtures.
3. Master handbook of acoustics by Alton Everest
4. Time saver standards for architectural design data by Calendar
5. Fire safety in buildings by V.K.Jain
6. Mechanical and electrical equipments for buildings: Stein/Reynolds/Mc Guiness

SEMESTER - V Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
1		Architectural Design Studio - V	8	2	10	12	30	20	50		50		100

Emphasis: Developing an architectural vocabulary relevant to the nature of institutional building / public building with complexity of services/ functions

Contents: Developing institutional characteristics with spatial composition and designing of the Part in relation to the 'whole', identity and nature of the institute, issues of 'relevance' in architectural design, client-contact, land-building relationships, issues of hierarchy and spatial order, efficiency of services and utilities, clarity of structural system, environmental concerns, use of appropriate technology, application of development control regulations, literature review

Projects: Buildings of an institutional scale e.g. library, court, cultural center, etc., case studies of appropriate architectural vocabulary, exercises on detailing a part in correspondence of the whole

References:

1. High rise buildings of urban design
2. Jencks, Charles – Modern Architecture
3. North, Whitney – Small urban spaces
4. Ashuhano, Yoshinobu – Exterior design in architecture

SEMESTER - V Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
2		Building Construction & Services	4	4	2	6	30	20	50	50		3 hrs	100

Emphasis:

Understanding of specialized construction system

Introduction to specialized building services such as:

• Building automation systems and devices

• Advanced Security and Surveillance systems

• Advanced vertical transportation methods

• Intelligent building systems

Study of a building as an integrated set of basic and specialized services,

international services standards, current practices, and relevant technology.

Content:

A)Building construction

• Understanding of Precast and Prestressed concrete components and their applications in

building /construction industry.

• Materials and Construction Technology for large span structures(Temporary/Permanent):

• Modular unit system

• Space frame system

• Tensile structures

• Shell structures

B)Building Services

• Building automation systems and devices

• CCMS (Centrally controlled monitoring systems for various building categories)

working principles and its components.

• Optimizing energy consumption with the help of BAS

• Automatic entry systems: motorized 'P' gates, different types of sliding doors,

functions and applications

• Power controlled roofing systems: louvers/slides for natural light controls

• Advanced Security and Surveillance systems

• Introduction to security and surveillance for protective and defence purposes as part

of architectural built forms/functional and planned areas. Safety and security

concerns, levels and planning for different building types

• Safety and surveillance equipments like CCTV, laser based security systems, passive

infrared detectors, electronic fencing, wired and wireless security systems, biometric

access controls, X-Ray security scanning, various types of metal detectors, their

working principle, components and fixing methods

• Automatic fire safety methods

• Advanced vertical transportation methods

• Multiple escalators for skyscrapers, their working strategy and design concerns

• Application of escalators and moving walks in various building types, and design

concerns

• Intelligent building systems

• Smart buildings concept and working principles,

	• Understanding of energy saving and energy generating mechanisms, wind turbines, movable solar panels, earthquake resistant mechanisms, seismic dampers etc.	
Projects:		
Reference:	Study through practical site visits, presentations, case studies & workshop based on the application of theory to construction field. 1. W.B. Mackey , " Building Construction" Vol –I,II,III, 2. S.P. Arora & S.P. Bindra, " Building Construction" 3. R. Barry, "The Construction of Building" 4. Henry J. Cowan, "Handbook of Architectural Technology" 5. Edward Allen, "Fundamentals of Building Construction" 6. Huntington , " Building Construction"	

SEMESTER - V Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
3		Sturctural Design System - V	2	2		2	30	20	50	50		2 hrs	100

Emphasis : Behavioral study of Typical structures & Introduction to Advanced Structural Systems.

Content :

1. Design of RCC column :

• Analysis & Design an R.C.C. Member subjected to an axial compressive load by limit state method. i.e. R.C.C. column.

• Ductile detailing of main steel, lateral ties, confine zones, unconfine zones in RCC columns as per I.S. code 13920.

2. RCC Footing :

• Analysis & Design of RCC isolated column footing.

• Introduction to Combined footing & Raft footing .i.e. study of behaviour & detailing of steel reinforcement.

3. Doubly reinforced section :

• Analysis of doubly reinforced section.

• Calculation of Moment of resistance.

4. RCC Water Tank :

• Types of water tank,

• Various types of joints in water tank,

• Behaviour & reinforcement detailing for

On ground water tank- circular & Rectangular.

Over head water tank- Intez tank

Underground water tanks

5. Plate Girder & Castellated Girder:

Introduction to plate girder behaviour & Application

• Types of stiffeners, Welded & riveted girders

Introduction to castellated girder behaviour & Application

6. Connections in steel structure:

Types of connections - Riveted, Welded & bolted connections.

Connection details for an axial members i.e. members of a truss.

Connection for Beam to Beam connection and Beam to Column connection.

Framed connection

Seated connection

7. Basic Study of Advanced Structures:

Tall Structure,Tensile Structures & Space Frames

Reference :

1. Design of structures with detailing based on course content.

Site visits & case studies

1. H.J.shah, " Reinforced concrete, Vol- I. & II"

2. S. Ramamrutham & S. Narayan, "Design of reinforced concrete structures."

3. Sushil Kumar, "Treasure of R.C.C. Design."

4. L.S.Negi, "Design of steel structure."

5. A.S. Arya & J.L. Ajamani, "Design of steel structure."

6. INSDAG publication, "Teaching resources for steel design."

7. Srimani & Das, "castellated girder."

8. IS 456-2000, "design of RCC elements?"

SEMESTER - V Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
4		Behaviour science-II	2	2		2	30	20	50	50		2hrs	100

Emphasis: **Social & cultural Psychology**

Contents:

Unit-1: Intro to Social Psychology, Cross-cultural Perspectives

Definition and Nature of Social Psychology.

Methods of Social Psychology

Unit-2: Group & Leadership

Definition and Classification of Groups: Organised vs Disorganised

Conformity and Compliance. Crowd and Mob.

Leadership: Definition, Classification and Function. Leadership and Morale.

Unit-3: Attitude, Prejudice, Discrimination, Stereotype

Definition, Formation of Attitude

Theories, Measurement, Change of Attitude. Concept and Origin or Prejudice and Stereotype,

Reduction of prejudice

Unit-4: Interface between Culture & Psychology

Methods of Understanding Culture, Scope of Cultural Psychology, Mechanisms of Cultural

Transmission

Unit-5: Culture & Basic Psychological Processes

Interrelation between Culture, Perception, Cognition

Emotional expressions and Culture

Unit-6: Culture & Gender

Culture and Gender stereotype

SEMESTER - V Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
5		Estimation & Costing	4	4	0	4	30	20	50	50	0	2 hrs	100

Emphasis:

Content:
To develop basic understanding the importance of estimate and designing of specification to achieve the best in terms of cost efficiency and standards.

- Introduction to subject and its importance giving practical examples.
- Understanding of various types of estimation used in the profession.
- Understanding of different methods of calculating quantities, i.e. approximate and detailed estimate.
- Understanding of various types of specification.
- Understanding of mode of measurement.
- Understanding of qualitative aspect in terms of material strength and workmanship.

Projects:
- Understanding of importance of specification in contract document and execution purpose.

Reference:
Study through practical site visits, presentations, case studies, tutorial, study of BOQ & workshop based on the application of theory to construction field.

1. B.N Dutta – Estimating and costing
2. Rangwala – estimating and costing
3. Roshan Nanavati - Professional Practice

SEMESTER - VI Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
6		History of Architecture-III	2	2	0	2	30	20	50	50	0	2hrs	100

Emphasis:

1. To introduce students to significance of tangible and intangible values shaping the architecture. **2.** To help develop an interest in understanding History of architecture of India and West leading towards Architectural Designers of tommorow.

Content:

1. Theory

Unit -01: Introduction to Renaissance period- Early Renaissance Architecture-Italy

Unit -02: High Renaissance Architecture- Rome

Unit -03: Late Renaissance Architecture - Mannerism Style of architecture.

Unit – 04: Purism Style of Architecture

Unit – 05: English Renaissance-Style of Great Britain - Elizabethan , Jacobean,Stuart & Georgian P

Unit – 06,07: Introduction to Baroque Style of Architecture - Works of Bernini , Borromini,Carlo maderna and Filippo Juvara

Unit – 08: Introduction to Indo-Islamic Style of Architecture - Delhi Sultanate and Mughal Period.

Unit – 09: Architecture of Delhi Sulatanate Period

Unit – 10: Architecture of Mughal Period.

2. Exercises

Exercise-1 : Overall Chart outlining the whole renaissance period- its bifurcation of periods,architects and thus buildings

Exercise-2 : Understanding the architecture based on sketches and ppt -Groupwise,stylewise.

Exercise-3 : Overall Chart outlining the wholeIndo-islamic period- its bifurcation of periods,architects and thus buildings

Exercise-4 : Solving Question Bank w.r.t. Unit-09 &10

3. Methodology /Outcome

1.Understanding the evolution of various historical styles dominating architecture till the date.

2.Understanding the construction technology and properties of materials deployed marking its overall architectural character.

3.Understanding the significance of the subject in Architectural Design.

References:

A.Books

1. A History of Architecture - Sir Banister Fletcher
2. World History of Architecture-Muffet
3. A global history of Architecture - Francis D.K. Ching

B. Journals (N.A.)

C. Projects & Websites (N.A.)

SEMESTER - V Marking Scheme (NEW)														
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
7		Therory of Design	2	2	0	2	30	20	50	50	0	2hrs	100

Emphasis: The focus of the course will be on understanding the main theoretical concepts in modern architecture. Key theoretical paradigms, methodologies and modes of enquiries will be introduced.

Contents: Anticipated Learning Outcomes: Ability to comprehend some of the main theoretical moorings of 20 h and 21" century in architecture, analyze built works and critically examine the ideas and view of practice they represent as a precursor to shaping one's own design approach.

Content:

i. Theory and criticism, theories in relation to practice, writing and theory as design tools in professional practice, Theory as a basis of the student's personal philosophy as an architect.

ii. Critical reading and writing skills form an important component of the course. Ideas of the late 20 h century architects Henri Lefebvre, Robert Venturi, Aldo Rossi, Bernard Tschumi, Peter
Eisenman, Martin Heidegger, Juhani Pallasma, Alvaro Siza, and Charles Correa

iii. Themes that have informed 20th century architecture and urbanism: History and historicism,
Type and typology, The nature of the site/ The constructed site, Tectonic and the Constructed object, Modernism, Structuralism, Deconstruction, Phenomenology, Post Modernism,

Reference

Heidegger, M., 1993. Building Dwelling rhinking. Basic Writings. Harper Collins

Mallgrave, H. F. & Goodman, D., (2011) An Introduction to Architectural Theory: 1968 to the Present.
Wiley Blackwell.

Mallgrave, H. F., (ed.) 2005. Architectural Theory Vol.1: An Anthology from Vitruvius to 1870.

Mallgrave, H.F., (ed.) 2008. Architectural Theory Vol.2: An Anthology from 1871 to 2005.

Otis, Enn (2010) Decoding TheorySpeak: An Illustrated guide to Architectural Theory. Routledge Tschumi, Bernard (ed.), 2004. The State of Architecture at the Beginning of the 21$^{s\ t}$ Century. Monacelli

Tschumi, Bernard 1994. Architecture and Disjunction. MIT Press. Cambridge Mass. Venturi, Robert, 1966. Complexity and Contradiction in Architecture. MoMA, New York. Lefebvre, H., 1991. The Production of space. Oxford, UK

Pallasma, Juhani, 2005. The Eyes of the Skin: Architecture and the Senses. Wiley Academy.

SEMESTER - VI Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
1		Architectural Design Studio-VI	8	2	10	12	30	20	50	0	50	Jury	100

Emphasis:

Contents: Architectural working drawing as tool to communicate and execute architectural design, construction details with the relevant specifications

Projects: Developing a set of working drawings for the purpose of execution and construction, architectural detailing of building components, details and function of building services like electrical, plumbing and drainage, back and forth design processes, exposure to materials, products and assembly, methods of specifications writings in the drawings

References: Preparing the complete set of working drawings of an independent design projects from the previous semesters

1. Architects working details – Vol. 1 to 5
2. Macay, W. B. – Building construction Vol. 1 to 4
3. Stitt – Architects detail library
4. Handisyde, Cicil – Everyday details
5. Styles, Keith – Working drawing hand book
6. Woodbridge, Joseph – Details: the architects' art

SEMESTER - VI Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
2		Advanced Building Construction	4	4	2	6	30	20	50	50	0	3hrs	100

Emphasis:

Contents:

Overview with reference to previous studies. Understanding of application of materials and construction technology.

- Overview of different building components as a whole structure and integrated system through case studies of relevant examples.
- basic study of natural forces like wind, fire, flood, earthquake etc. and their impact on built form.
- Relevance of appropriate Construction system and material application with reference to above mentioned forces.
- Understanding the concepts of sustainability and eco friendly materials.
- To explore hi-tech building construction technology (cable stress structures, turning torso, suspension bridges etc.)

Projects:

- To explore new and hi tech building materials(titanium sheets etc)

References:

- Introduction to requirements of building for LEED rating

Study through practical site visits, presentations, & case studies

1. W.L. Mackey , " Building Construction" Vol –I,II,III,
2. S.P. Arora & S.P. Bindra, " Building Construction"
3. R. Barry, "The Construction of Building"
4. Henry J. Cowan, "Handbook of Architectural Technology"
5. Edward Allen, "Fundamentals of Building Construction"
6. Huntington , " Building Construction"

SEMESTER - VI Marking Scheme (NEW)														
Sr. No	Subject Code	Subjects	Credits	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
3		Project Management	2	2	0	2	30	20	50	50	0	2hrs	100

Emphasis :

Content:

To Introduce the students with Construction Management problems & techniques in the field and to briefly introduce an understanding regarding the economics of building industry. To develop an understanding regarding the importance of resource management in today's context.

(A) Construction Management

1) Definition of the term 'Management', and understanding Planning, Programming in advanced and timely execution thereof.

2) Site Management and Job Layout. Reshaping, rescheduling of work as per the site conditions and prevailing circumstances.

3) Office Management and its structure with the criteria's for decision making, relevancy of decision-making and responsibilities therefore.

4) Methods of Planning of execution of work considering various factors like availability of design, details, material, labour, etc. and comparison of planning and actual execution of work.

5) Labour welfare laws and other laws related to the construction industry.

6) Various methods for planning and programming for Project management – Various Schedules, Network Techniques (CPM, PERT), Bar charts, etc.

7) Introduction to basic software related to Project Management.

(B) Building Economics

1. Demand and Supply of built spaces.
2. Market analysis – choice of consumer.
3. Building activity as an industry.

Reference:

1) A to Z practical building construction and its management, Mantri Institute.

2) Techniques for Construction Networking Scheduling, James. D. Stevens.

3) A textbook of economic theory: Aldred W. Stonier & DauglenC. Hague. The English language books SC & Longuian Group Ltd. (1972)

SEMESTER - VI Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
4		Professional Practice-I	2	2	0	2	30	20	50	50	0	2hrs	100

Emphasis:

Contents:

To develop an understanding of basic professional skills to practice of various type of projects and its complexity

- Role and responsibilities of a professional
- Prevailing pattern of professional practice
- Comparison and inter relationship with other professionals and professional bodies
- Various professional associations and registering body; their responsibilities, detail understanding of professional ethics; fee structure
- Understanding of various professional competition
- Office organization and management skills
- Detail understanding of office day to day responsibilities towards staff and other government bodies
- Understanding of contract and its management, site supervision
- Role, responsibilities, liabilities and indemnity of client, contractor, sub contractor and clerk of work.

References:

Study of all aspects in reference to relevant core study; seminar related to prevailing practice.

- Hand book on professional practice by council of architecture, New Delhi
- Hand book on professional practice by Indian Institute of Architecture
- BPMC Act
- GTP and GDCR rules
- Professional practice with Elements of Estimating, Valuation contract and Arbitration By Dr. Roshan H. Namavati
- Estimating and costing in Civil Engineering Theory and Practice by B.N. Datta

SEMESTER - VI Marking Scheme (NEW)

Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
5		Building By-Laws	4	4	_	4	30	20	50	50	_	2 hrs	100

Emphasis: Develop understanding of building bye laws and its implementation in reference to building design.

Contents:

- o Zoning of areas: residential, institutional, industrial agricultural entertainment etc
- o Introduction to city, town and village bye laws,
- o Evolution of GDCR (Mumbai municipal act, town planning act and GDCR)
- o Need of bye laws
- o Other prevailing laws (environment law etc)

References:

1. Rapoport, Amos: House Form and Culture
2. Rudofsky, Bernard: Architecture without Architects
3. Oliver, Paul: EVAW
4. Joglekar, M. N.: Contemporary Architecture in India
5. Mc Camant & Durrett: Co-housing
6. Bhatia, Gautam: Life, works and writings of Laurie Baker
7. GDCR

SEMESTER - VI Marking Scheme (NEW)													
Sr. No	Subject Code	Subjects	Credit	Contact hours /week			Examination Scheme						Total (A+B)
							Internal (50%) A			External (50%) B			
				L/T (Hours)	S/W/P (Hours)	Total Hours/ week	Term work / Continous (30%)	Jury / Viva (20%)	Total	Theory	Jury / Viva	Duration	
6		HOA-IV (History of Architecture-IV	2	2	_	2	30	20	50	50	_	2 hrs	100

Emphasis: Evolution of the built environment or human habitat as a complex and multilayered synthesis of 'culture, climate and construction'

Contents: Study of spatial order, structure and materials in the Modernist era,its various styles, articulations and meanings in the built forms at various scales in the following time-period.

Time Period: Mid 18th to 20th Century

A)Modernist Architecture

1.1 Rise of Modernism: Causes and effects through famous buildings of the era

1.2 Role of materials & Structural Engineers in Modernist Architecture through famous buildings of the era

1.3 Relationship of Structure to Architecture of Buildings.

1.4 Learnings from Animal Architecture

1.5 Role of various Construction Technology in Modernist architecture through multiple case-studies.

1.6 Understanding the role of Master Architects of India Part-I :Works of Le Corbusier,Louis Sullivan,B.V. Doshi,Mahendra Raj,Raj Rewal,Charles Correa,etc thereby understanding Critical Regionalism.

1.7 Understanding the role of Master Architects of India Part-II :Understanding the need of Climate Responsive Architecture,the principles of Modernist approach and study of respective famous architects like Sanjay Puri,Morphogenesis etc and their works.

1.8 Women in Indian Architecture

B) Colonial Architecture of India

Projects: Task:01-Understanding few buildings & styles marking the era of Modernism in India w.r.t. Unit 1.1 & 1.2

Task:02 -Various modern styles in Architecture through innovative quick formats

Task:03a,3b,3c& 3d.-Study of Famous Structural Engineers,Architects and their works w.r.t. units -1.4,1.5 & 1.6

Task:04- Group Exercise- Colonial Architecture w.r.t any 4 colonies.

References:

• Meaning in Western Architecture – Christian Norberg-Schulz
• A History of Architecture – Sir Banister Fletcher
• Architecture Through the Ages – Talbot Hamlin
• Architecture : From Prehistory to Post-Modernity – Trachtenberg and Hyman
• Space, Time and Architecture – Sigfried Gideon
• Rethinking Architecture: a reader in cultural theory, Leach, Neil (Ed.)
• When was modernism in Indian art? - Geeta Kapur
• Architecture and Independence – Jon Lang, Miki and Madhavi Desai
• Graphic History of Architecture. – John Mansbridge