



**KARNATAK LAW SOCIETY'S
GOGTE INSTITUTE OF TECHNOLOGY
"JNANA GANGA" UDYAMBAG, BELAGAVI-590008,
KARNATAKA, INDIA.**

**Approved by AICTE & UGC
Permanently Affiliated and Autonomous Institution Under
Visvesvaraya Technological University, Belagavi
www.git.edu**



3rd Year 2018 N Scheme

Academic year 2021- 2022 onwards

Department: Architecture

Programme: B.Arch

1st to 10th Semester Scheme of Teaching and Examination

5th to 6th Semester Syllabus

INSTITUTION VISION

Gogte Institute of Technology shall stand out as an institution of excellence in technical education and in training individuals for outstanding caliber, character coupled with creativity and entrepreneurial skills.

MISSION

To train the students to become Quality Engineers with High Standards of Professionalism and Ethics who have Positive Attitude, a Perfect blend of Techno-Managerial Skills and Problem solving ability with an analytical and innovative mindset.

QUALITY POLICY

- Imparting value added technical education with state-of-the-art technology in a congenial, disciplined and a research oriented environment.
- Fostering cultural, ethical, moral and social values in the human resources of the institution.
- Reinforcing our bonds with the Parents, Industry, Alumni, and to seek their suggestions for innovating and excelling in every sphere of quality education.

DEPARTMENT VISION

The Department of Architecture shall stand out as the Department of excellence in architectural education and space making, in training individuals for outstanding calibre, character and holistic development.

MISSION

To train the students to grapple with complex issues that are emerging in today's society and encourage them to be designers who will find architectural solutions that respond appropriately to culture, climate and context

COURSES, PERIODS OF STUDY AND SUBJECTS OF EXAMINATION UNDER CHOICE BASED CREDIT SYSTEM FOR THE ARCHITECTURE DEGREE PROGRAM

1.0 Under the Choice based credit system, which is a student/ learner centric system, the courses of study in the Architecture Degree program shall be as under:

1.1 Professional Core (PC) Course: A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

1.2 Basic Sciences and Applied Engineering (BS & AE) Course: A course which informs the Professional core and should compulsorily be studied.

1.3 Elective Course: Generally a course which can be chosen from a pool of courses and are of two types:

(i) Professional Elective (PE) which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope

(ii) Open Elective (OE) which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill

1.4 Employability Enhancement Courses (EEC) which may be of two kinds: Employability Enhancement Compulsory Courses (EECC) and Skill Enhancement Courses (SEC)

2.0 The Weightage in terms of Credits for each of the above in the prescribed curriculum of the institution shall be as follows:

1. Professional Core Courses (PC) : 45%

2. Building Science and Applied Engineering (BS& AE) : 20 %

3. Elective Courses

(i) Professional Electives (PE) : 10%

(ii) Open Electives (OE) : 5%

4. Professional Ability Enhancement Courses (PAEC)

(i) Professional Ability Enhancement Compulsory Courses (PAECC) : 15%

(ii) Skill Enhancement Courses (SEC) : 5%

Note: Where it is not possible to offer Open Electives, Professional Electives may have a weightage 15% of the total credits.

Semester wise distribution of credits for B.Arch. program

Total credits for B.Arch. Program: 260 credits

	Semester	Credits per Sem	Total credits
1 st year	1	25	54
	2	29	
2 nd year	3	29	57
	4	28	
3 rd year	5	31	63
	6	32	
4 th year	7	31	47
	8	16	
5 th year	9	20	39
	10	19	
	Total	260	260





**Karnatak Law Society's
GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08
Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION**



Department :Architecture

Semester: I

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks					Duration of Exam
					L	S	P/SE	Total		CIE		SEE		Total	
										CP	PA	VIV	EXAM		
DESIGN	18DES1.1N	PC	Basic Design and Visual Arts	Architecture	1	6	0	7	10	10	40	50	-	100	
	18DES1.2N	PC	Model Making	Architecture	0	0	3	3	CA	20	80	-	-	100	-
TECHNOLOGY	18TECL.1N	BS&AE	Building Constructi on and Materi als-I	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TECL.2N	PC	Architectural Graphics-I	Architecture	0	1	3	4	3	10	40	50	-	100	-
	18TECL.3N	BS&AE	Structures-I	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
HUMANITIES	18HUM1.1N	PC	History of Architecture- I	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18HUM1.2N	SEC	Communicati on Skills	Architecture	1	0	0	1	1	20	80	-	-	100	-
Total					9	9	8	26	25	90	360	150	100	700	

L-Lecture

S-Studio

P-Practical

SE - Studio Exercise

Minimum Marks for passing

CIE - Continuous Internal Evaluation

SEE- Semester End Examination

PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.

Class Participation

PA-Progressive Assessment

CA-Compulsory Audit



**Karnatak Law Society's
GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08
Bachelor of Architecture**



SCHEME OF TEACHING AND EXAMINATION

Department :Architecture

Semester: II

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks				Duration of Exam	
					L	S	P/SE	Total		CIE		SEE			
										CP	PA	TVA/TVEXAM	Total		
DESIGN	18DES2.1N	PC	Architectural Design -I	Architecture	1	6	0	7	9	10	40	50	-	100	-
TECHNOLOGY	18TEC 2.1N	BS&AE	Building Construction and Materials-II	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TEC 2.2N	PC	Architectural Graphics-II	Architecture	0	1	3	4	3	10	40	50	-	100	-
	18TEC 2.3N	BS&AE	Structures-II	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18TEC2.4N	BS&AE	Surveying and Levelling	Architecture	2	0	2	4	3	10	40	-	50	100	3 hrs
HUMANITIES	18HUM2.1N	PC	History of Architecture-II	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18HUM 2.2N	PC	Art Appreciation	Architecture	2	0	0	2	2	20	80	-	-	100	-
	18HUMS2.3N	SEC	Kannada	Architecture	2	0	0	2	1	5	20	-	25	50	2 hrs
Total					14	9	7	30	29	85	340	150	175	750	

L-Lecture

S-Studio

P-Practical

SE - Studio Exercise

Minimum Marks for passing:

CIE- Continuous Internal Evaluation

SEE- Semester End Examination

PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

CP-Class Participation

PA-Progressive Assessment

CA-Compulsory Audit



Karnatak Law Society's
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Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION



Department :Architecture

Semester: III

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks					Duration of Exam
					L	S	P/SE	Total		CIE		SEE		Total	
										CP	PA	VIVA/TW	ELM		
DESIGN	18DES 3.1N	PC	Architectural Design -II	Architecture	1	6	0	7	10	10	40	50	-	100	-
	18DES 3.2N	BS&AE	Climatology	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
TECHNOLOGY	18TEC 3.1N	BS&AE	Building Construction and Materials-III	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TEC 3.2N	BS&AE	Building Services-I (WATER SUPPLY AND SANITATION)	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18TEC 3.3N	BS&AE	Structures-III	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18TEC 3.4N	SEC	Computer Application-I	Architecture	1	0	2	3	2	10	40	50	-	100	-
HUMANITIES	18HUM 3.1N	PC	History of Architecture-III	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18HUM 3.2N	PC	Vacation Assignment-I	Architecture	0	0	0	0	CA	20	80	-	-	100	-
Total					15	8	4	27	29	90	360	150	200	800	

L-Lecture

CIE- Continuous Internal Evaluation

CP-Class Participation

S-Studio

SEE- Semester End Examination

PA-Progressive Assessment

CA-Compulsory Audit

P-Practical

PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective

SE - Studio Exercise

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Minimum Marks for passing

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

Note: Students are to be taken on study tour or given vacation assignment after II semester examinations, before the starting of III semester



Karnatak Law Society's
COGIT INSTITUTE OF TECHNOLOGY, BELAGAVI-08
Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION



Department :Architecture

Semester: IV

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks				Duration of Exam	
					L	S	P/SE	Total		CIE		SEE			Total
										CP	PA	VIVA/TW	BLAM		
DESIGN	18DES 4.1N	PC	Architectural Design -III	Architecture	1	6	0	7	10	10	40	50	-	100	-
TECHNOLOGY	18TEC 4.1N	BS&AE	Building Construction and Materials-IV	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TEC 4.2N	BS&AE	Building Services-II	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18TEC 4.3N	BS&AE	Structures-IV	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18TEC 4.4N	SEC	Computer Application-II	Architecture	1	0	2	3	2	10	40	50	-	100	-
HUMANITIES	18HUM 4.1N	PC	History of Architecture-IV	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18HUM 4.2N	PC	Humanities	Architecture	1	0	2	3	2	20	20	-	-	100	-
Total					13	8	6	27	28	20	320	150	150	700	

L-Lecture

S-Studio

P-Practical

SE - Studio Exercise

Minimum Marks for passing

CIE - Continuous Internal Evaluation

SEE - Semester End Examination

PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.

CP-Class Participation

PA-Progressive Assessment

CA-Compulsory Audit



**Karnatak Law Society's
GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08
Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION**



Department : Architecture

Semester: V

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks				Duration of Exam	
					L	S	P/SE	Total		CIE		SEE			Total
										CP	PA	VIVA/TW	BLAM		
DESIGN	18DES 5.1N	PC	Architectural Design -IV	Architecture	0	8	0	8	12	10	40	50	-	100	-
	18DES 5.2N	PC	Theory of Architecture-I	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18DES 5.3N	SEC	Working Drawing	Architecture	1	0	2	3	2	10	40	50	-	100	-
TECHNOLOGY	18TEC 5.1N	BS&AE	Building Construction and Materials-V	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TEC 5.2N	BS&AE	Building Services-III	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18TEC 5.3N	BS&AE	Structures-V	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
HUMANITIES	18HUM 5.1N	PC	History of Architecture-V	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18HUM 5.2N	PC	Vacation Assignment-II	Architecture	0	0	0	0	CA	20	80	-	-	100	-
Total					14	10	4	28	31	90	360	150	200	800	

L-Lecture

S-Studio

P-Practical

SE - Studio Exercise

Minimum Marks for passing

CIE- Continuous Internal Evaluation

SEE- Semester End Examination

PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.

Note: Students are to be taken on study tour or given vacation assignment after IV semester examinations, before the starting of V semester





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Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION



Department : Architecture

Semester: VI

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks				Duration of Exam	
					L	S	P/SE	Total		CIE		SEE			Total
										CP	PA	VVA	ELSM		
DESIGN	18DES 6.1N	PC	Architectural Design -V	Architecture	0	8	0	8	12	10	40	50	-	100	-
	18DES 6.2N	PC	Theory of Architecture II	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18DES 6.3N	PC	Landscape Architecture	Architecture	2	0	2	4	3	10	40	-	50	100	3 hrs
TECHNOLOGY	18TEC 6.1N	BS&AE	Building Construction and Materials-VI	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TEC 6.2N	BS&AE	Structures -VI	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
HUMANITIES	18HUM 6.1N	PC	Physical Planning	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
	18HUM 6.2N	PC	Contemporary Architecture	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
Total					15	10	4	29	32	70	280	100	250	700	

L-Lecture

CIE- Continuous Internal Evaluation

CP-Class Participation

S-Studio

SEE- Semester End Examination

PA-Progressive Assessment

CA-Compulsory Audit

P-Practical

PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective

SE - Studio Exercise

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Minimum Marks for passing

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.



Karnatak Law Society's
GOGIE INSTITUTE OF TECHNOLOGY, BELAGAVI-08
Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION



Department :Architecture											Semester: VII				
Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks				Duration of Exam	
					L	S	P/SE	Total		CIE		SEE			Total
										CP	PA	VVA	BLAM		
DESIGN	18DES 7.1N	PC	Architectural Design -VI	Architecture	2	8	-	10	14	10	40	50	-	100	-
	18DES 7.2N	PC	Specification, Estimation and	Architecture	3	0	-	3	3	10	40	-	50	100	3 hrs
TECHNOLOGY	18TEC 7.1N	BS&AE	Alternate Building Techniques	Architecture	0	0	4	4	2	10	40	50	-	100	-
	18TEC 7.2N	BS&AE	Building Services -IV	Architecture	3	0	-	3	3	10	40	-	50	100	3 hrs
	18TEC 7.3N	PC	Earthquake Resistant	Architecture	2	0	-	2	2	20	80	-	-	100	-
HUMANITIES	18HUM 7.1N	PE	Elective -I	Architecture	2	0	2	4	3	20	80	-	-	100	-
	18HUM 7.2N	PAECC	Professional Practice-I	Architecture	3	0	-	3	3	10	40	-	50	100	3 hrs
	18CRT7.1N	SEC	Certification Course	Architecture	0	0	-	0	1	-	50	-	-	50	-
Total					15	8	6	29	31	90	410	100	150	750	
L-Lecture			CIE - Continuous Internal Evaluation		CP-Class Participation										
S-Studio			SEE - Semester End Examination		PA-Progressive Assessment						CA-Compulsory Audit				
P-Practical			PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective												
SE - Studio Exercise			PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.												
Minimum Marks for passing:			Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,												
			For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.												



Karnatak Law Society's
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Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION



Department :Architecture										Semester: VIII				
Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks			Duration of Exam	
					L	S	P/SE	Total		CIE	SEE			Total
											PA	VIVA		
DESIGN	18DES & IN	PAECC	Professional Training	Architecture	16 weeks				16	50	50	-	100	-
Total									16	50	50		100	
L-Lecture		CIE- Continuous Internal Evaluation			CP-Class Participation									
S-Studio		SEE- Semester End Examination			PA-Progressive Assessment					CA-Compulsory Audit				
P-Practical		PC - Professional Core; BS- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective												
SE - Studio Exercise		PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.												
Minimum Marks for passing:		Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%, For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together												



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Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION



Department :Architecture

Semester: IX

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks				Duration of Exam	
					L	S	P/SE	Total		CIE		SEE			Total
										CP	PA	VIVA/TW	EXAM		
DESIGN	18DES 9.1N	PAECC	Dissertation (Thesis Part- I)	Architecture	2	4	0	6	8	10	40	50	-	100	-
	18DES 9.2N	BS&AE	Energy Efficient Architecture	Architecture	1	0	4	5	3	10	40	50	-	100	-
	18DES 9.3N	PE	Elective-II	Architecture	2	0	2	4	3	20	80	-	-	100	-
TECHNOLOGY	18TEC 9.1N	PE	Elective-III	Architecture	2	0	2	4	3	20	80	-	-	100	-
HUMANITIES	18HUM 9.1N	PAECC	Professional Practice-II	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs
Total					10	4	8	22	20	70	280	100	50	500	

L-Lecture

S-Studio

P-Practical

SE - Studio Exercise

Minimum Marks for passing

CIE- Continuous Internal Evaluation

SEE- Semester End Examination

PC - Professional Core; BS- Building Science and Applied Engineering; PE- Professional Elective; OE- Open Elective

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

CP-Class Participation

PA-Progressive Assessment

CA-Compulsory Audit



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Bachelor of Architecture
SCHEME OF TEACHING AND EXAMINATION



Department :Architecture

Semester: X

Subject Stream	Subject Code	Course Type	Subject Title	Teaching Department	Contact Hrs				Credits	Marks				Duration of Exam	
					L	S	P/SE	Total		CIE		SEE			Total
										CP	PA	VIVA	EXAM		
DESIGN	18DES10.1N	PC	Architectural Design Project	Architecture	0	10	-	10	15	10	40	50	-	100	-
HUMANITIES	18HUM10.1N	SEC	Constitutional Law	Architecture	2	0	-	2	2	20	80	-	-	100	-
		OE	Open Elective		2	0	-	2	2	-	50	-	50	100	3 Hrs
Total					4	10	-	14	19	30	170	50	50	300	-

L-Lecture

S-Studio

P-Practical

SE - Studio Exercise

Minimum Marks for passing:

CIE- Continuous Internal Evaluation

SEE- Semester End Examination

PC - Professional Core; BS&AE- Building Science and Applied Engineering; PE- Professional Elective;

OE- Open Elective(Offered by other engineering departments)

PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.

Theory, Studio and Lab Marks (CIE) : 50%, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE) : 40%,

For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

CP-Class Participation

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ARCHITECTURAL DESIGN - IV

Course Code	18DES 5.1N	Credits	12
Course type	PC	CIE Marks	50 marks
Hours/week: L-T-P	8Hrs (8 Studios) per Week	SEE Marks	50 marks
Total Hours:	Studio=112 Hrs; Total=112 Hrs	SEE Duration	Viva

Course learning objectives

- 1.To understand patterns of structural systems and their influence on spatial compositions.
- 2.To understand the role of structural systems in generating Architectural aesthetics.
- 3.To understand the design consideration required to accommodate various services.
4. To enable students to demonstrate design solutions integrating structural systems and services.

Unit I: Understanding of Structural patterns

08 Hours

Understanding of the Structural patterns and how they influence the formal composition and spatial layout embedded in an Architectural idea.Study of building material to understand the behavior and responses of chosen Material to a particular Structural pattern and the economics of it.

Unit II: Introduction to Structural systems

08 Hours

Understanding of the Structural systems for multi-level / large span buildings through various case studies.

Unit III: Design Project

96 Hours

Design project shall explore and demonstrate an understanding of design considerations of structural systems and services by dealing with urban level projects like Hospitals, Hotels, Transport Interchanges, Terminals, Shopping Malls, Convention Centres.

Design Methodology:

The Design process comprises various stages like understanding the role of structural patterns and spatial compositions influencing design of multi-level/ large span structures through various case studies followed by site selection and analysis, data collection, concept, conceptual design sketches, study models, design drawings and final design submission.

References:

1. Bjorn N Sandarkers, Arne P. Eggen, **The Structural Basis of Architecture**, Routledge, Abingdon.UK. 2011 and onwards.
2. Salvadori Mario, **The Strength of Architecture-Why Buildings Stand Up**, W.W.Norton and Company, New York, US 1991 and onwards.
3. Kunders G.D., **Hospitals**, McGraw-Hill Education Pvt. Ltd., New York.US. 2004 and onwards

4. Curtis Eleanor, Hotel- Interior Structures, John Wiley Academy, London.UK. 2001 and onwards.
5. Jodidio Philip, Santiago Calatrava Complete Works 1979-2009,Taschen, Hohenzollernring 53, Cologne, Germany, 2007 and onwards.
6. Taylor Brian Brace, Raj Rewal, Mimar Publications, Concept Media Ltd., London, 1992 and onwards.
7. Ching Francis D.K., Onouye Barry S. and Zuberbuhler Douglas, Building Structures Illustrated Pattern, Systems and Design, JohnWiley & Sons, Inc. Hoboken, New Jersey, 2009 and onwards.
8. Margolius Ivan, Architects + Engineers = Structures, Wiley-Academy, T J International Ltd, Padstow, Cornwall, 2002 and onwards.

Course delivery methods

1. Case Study/Site Study
2. Design Discussion

Assessment methods

1. Study Report
2. Design Reviews
3. Viva

Scheme of Continuous Internal Evaluation (CIE):

Components	Portfolio Marking	Average of assignments (Two) /activity	Quiz/ Seminar/ Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
➤Minimum marks required to qualify for SEE: 25 out of 50					

Scheme of Semester End Examination (SEE):

1. It will be conducted as 50 marks viva-voce exam and same will be considered for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50**

THEORY OF ARCHITECTURE - I

Course Code	18DES5.2N	Credits	3
Course type	PC	CIE Marks	50 Marks
Hours/week: L-T-P	3Hrs. (Lecture) per Week	SEE Marks	50 Marks
Total Hours:	Lecture = 42 Hrs; Total = 42Hrs.	SEE Duration	3Hours for 100 Marks

Course learning objectives

To acquaint students with the basic aesthetic principles involved in architectural design and fundamentals of architectural aesthetics.

Unit 1: Principles of Aesthetics and Architectural Composition-I **10 Hours**

- a) Unity, Balance, Proportion, Scale in Architectural composition, illustrations and its application to the practice of design with historical as well as contemporary buildings.
- b) Contrast, harmony, accentuation, restraint in Architectural composition, illustrations and its application to the practice of design in historical as well as contemporary buildings.

Unit 2: Principles of Aesthetics and Architectural Composition-II **10 Hours**

- a) Repose, vitality, strength in Architectural composition, illustrations and its application to the practice of design in historical as well as contemporary buildings.
- b) Organizing principles of Aesthetics and Architectural Composition: symmetry, asymmetry, hierarchy, datum, axis, rhythm in Aesthetics and Architectural Composition and its application to the practice of design.

Self-Learning Topics: Identification and understanding of symmetry, asymmetry, hierarchy, datum, axis, rhythm in Architecture of the local and surrounding region.

Unit 3: Spatial Organizations of Masses in Architecture **10 Hours**

- a) Centralized and clustered: Illustrations of centralized and clustered massing in spatial organizations of masses in Architecture and its application to the practice of design with both historical as well as contemporary buildings.
- b) Linear, radial, grid organizations: Illustrations of linear, radial, grid organization in spatial organizations of masses in Architecture and its application to the practice of design with both historical as well as contemporary buildings.

Self-Learning Topics: Study of different types of organizing patterns in different contexts like climate, topography, culture etc.

Unit 4: Concepts of Form in Architecture **06 Hours**

- a) Shape and Form: Primary shapes and Primary forms.
- b) Form-regular and irregular forms, transformation of forms and dimensional transformation, subtractive forms, subtractive and additive forms and its categories like centralized and linear forms.
- c) Elements of space making-floor, column, wall, door, windows, stair and roof.

Unit 5: Concepts of Indian Traditional Architecture and Types of Theory 06 Hours

- a) Concepts of aesthetics in Indian Architectural ethos.
- b) Duality, Bipolarity, Spatial narratives, Kinesthetic.
- c) Positive architectural theory: Procedural theory, Substantive theory. Normative architectural theory: Polemics and Practice.

References:

1. Pandya Yatin, Concepts of Space in Traditional Indian Architecture, Mapin India, 2005 onwards.
2. Ching Francis D K, Form, Space and Order, Wiley, New Jersey, 1996 onwards.
3. Parmar V S, Design Fundamentals in Architecture, Somaiya, New Delhi, 1997 onwards.
4. Johnson Paul Alan: Theory of Architecture, 1994 onwards.
5. Lang John, Creating Architectural Theory, Van Nostrand Reinhold, New York, 1987.

Course delivery methods

- 1 Lectures
- 2 Documentary Videos

Assessment methods

- 1 Assignment
- 2 Internal Assessment Test
- 3 Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar/Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
➤Minimum marks required to qualify for SEE: 25 out of 50					

Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50.**
3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer One full question from each unit.
4. **For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.**

WORKING DRAWING

Course Code	18DES 5.3N	Credits	2
Course type	SEC	CIE Marks	50 Marks
Hours/week: L-T-P	3 Hrs (1Lecture + 2 Studio Exercise) per Week	SEE Marks	50 Marks
Total Hours	Lecture=14 Hrs; Studio Exercise =28 Hrs; Total=42 Hrs	SEE Duration	Viva

Course learning objectives

1. To provide students with an understanding of Graphical Conventions used in preparing Working Drawings.
2. To enable students with techniques for preparing working drawings used in Building Construction.

Unit I: Working Drawings

30 Hours

- a. Site plan, Location plan.
- b. Centerline plan - Foundation Setting plan and column layout plan.
- c. All floor plans showing column layout, and beam layout plan.
- d. All side building elevations.
- e. Sections eg: Through atrium, courtyard, staircase and toilets.
- f. Schedule of openings including Doors, Windows and Ventilators
- g. Grills and Railing Details.
- h. Corporation Approval drawing as per Building bye laws.

Unit II: Service Drawings

12 Hours

- a. Electrical drawing with notation and symbols.
- b. Plumbing drawing with notation and symbols.

NOTE: The study shall demonstrate working drawings of a R.C.C framed residential building.

References:

1. **Jefferis Alan and Madsen David A., Architectural Drafting and Design, Delmar Thomas Learning, USA. 1986 and onwards.**
2. **Rams Architectural Graphics Standards, John Wiley and Sons Inc, USA. 2008 and onwards.**
3. **Shah M.G, Kale C.M, Patki S.Y, Building Drawing: With an Integrated Approach to Built Environment, Tata McGraw Hill Education Pvt. Ltd,Delhi. 2001 and onwards.**
4. **Ching Francis D K -Advanced Building Construction illustrated, John Wiley & Sons, Inc, Hoboken, New Jersey, Fourth edition 2001**

Course delivery methods

- 1 Lectures
- 2 Reference Drawings

Assessment methods

- 1 Assignment
- 2 Viva

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar/Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
➤Minimum marks required to qualify for SEE: 25 out of 50					

Scheme of Semester End Examination (SEE):

1. It will be conducted as 50 marks viva-voce exam and same will be considered for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50.**
3. **For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.**

BUILDING CONSTRUCTION AND MATERIALS – V

Course Code	18TEC 5.1N	Credits	5
Course type	BS&AE	CIE Marks	50 Marks
Hours/week: L-T-P	5 Hrs (1Lecture + 2 Studios + 2 Studio Exercises) per Week	SEE Marks	50 Marks
Total Hours	Lecture= 14;Studios=28; Studio Exercises=28; Total= 70 Hrs	SEE	Viva

Course learning objectives

1. To study Construction systems of Roofing for Large Span Structures.
2. To study Cladding Systems for Industrial Buildings.
3. To study Complex Roofing Systems.
4. To study Ferro cement as a building technique.
5. To study Additives, Adhesives and Rubber as building materials.

Unit I: Roofing systems - Steel Structures

20 Hours

- a) Introduction to Steel trusses.
 - b) Steel trusses for various spans and types.
 - c) Typical details of a Ridge Truss.
 - d) Details at connections of a typical Saw-Tooth Truss for North Light and Lattice Girder.
- Self Learning Topic:** To prepare a scaled study model of any one type of Steel Truss.

Unit II: Cladding Systems and Roof Lighting Systems

12 Hours

- a) Wall Cladding with Cement sheets, Calcium Silicate Boards, Fiber Cement Boards and Eco- friendly Boards.
- b) Wall Cladding with M.S. Profile sheets and Aluminum sheets.
- c) Roof lighting systems - Details of North Light Glazing, Skylights, Sky Domes.
- d) Roof Ventilation systems.

Unit III: Complex RCC Roof Structures

12 Hours

- a) RCC Shell Roofs.
- b) RCC Domes, Vaults and Folded Plate.
- c) Prestressed and Post Tensioning

Self Learning Topic: Case study of shell roofs and folded plates designed by renowned Architects like Eero Saarinen and Santiago Calatrava.

Unit IV: Complex Roof Structures

12 Hours

- a) Geodesic Domes.
- b) Space Frames.
- c) Portal Frames
- d) Tensile Roof Structures and Pneumatic Structures.

Unit V: Building Techniques and Materials

14 Hours

- a) Ferro cement.
- b) Additives and Adhesives in building materials.
- c) Rubber as a building material.

Self Learning Topic: To collect samples, rates and manufacturing information of additives and adhesives and rubber as a building material.

NOTE: Site Visits and Documentation for each module and Study of material application shall form the part of portfolio.

References:

1. Mackey W. B, Building Construction, Volume 3, Orient Longman, London.
2. Mackey W. B, Building Construction, Volume 4, Orient Longman, London.
3. Chudley R, Construction Technology, Volume 3, ELBS, England.
4. Barry R, Construction of Buildings, Volume 2 and 4, EWP, New Delhi.

Course delivery methods

Assessment methods

- | | | | |
|---|--------------------|---|-------------|
| 1 | Lectures | 1 | Assignments |
| 2 | Documentary Videos | 2 | Viva |
| 3 | Site visits | | |

Scheme of Continuous Internal Evaluation (CIE):

Components	Portfolio marking	Average of assignments (Two) / activity	Quiz/ Seminar/Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
> Minimum marks required to qualify for SEE: 25 out of 50					

Scheme of Semester End Examination (SEE):

1. It will be conducted as 50 marks viva-voce exam and same will be considered for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50**
3. **For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.**

BUILDING SERVICES- III

Course Code	18TEC 5.2N	Credits	3
Course type	BS&AE	CIE Marks	50 Marks
Hours/week: L-T-P	3 Hrs (Lectures) per Week	SEE Marks	50 Marks
Total Hours	Lecture = 42 Hrs; Total =42 Hrs	SEE Duration	3 Hours for 100 Marks

Course learning objective

To develop the knowledge regarding essential Mechanical services required in buildings and their integration with Architectural Planning to achieve a comfortable and safe environment.

Unit I: Introduction to Mechanical Ventilation 08 Hours

- a) Indoor Air Quality for comfortable habitable conditions, Need for Mechanical Ventilation in buildings, Rate of Ventilation for different occupancies.
- b) Methods and equipments used in Mechanical Ventilation systems, Introduction to various types of fans and filters used.
- c) Introduction to Air Conditioning- Definition, Purpose, Advantages and Disadvantages.
- d) Air cycle and Refrigeration cycle.

Unit II: Air Conditioning 12 Hours

- a) Summer and Winter Air Conditioning Systems, Factors considered in calculation of Air Conditioning loads.
- b) Zoning in Air-conditioning, Purpose and Advantages. Transmission and distribution of Conditioned Air, Ducts and Duct systems.
- c) Air Conditioning methods and equipments for Residential and Commercial use: Split and Central Air Conditioning systems. Location of Air Conditioning equipment in buildings. Architectural requirements of various equipments, equipment room for Central Air Conditioning Plant.
- d) Introduction to the concept of 'Clean Room' and its Architectural requirements.
- e) Introduction to terminologies like BRI (Building Related Illnesses), SBS (Sick Building Syndrome), GWP (Global Warming Potential) and (ODP) Ozone Depletion Potential.

Self Learning Topic: Case Study of Design of Air Conditioning system in a building.

Unit III: Elevators (Lifts) 08 Hours

- a) Brief history, Systems of Elevators like Traction and Hydraulic.
- b) Types of Lifts- Passenger, Hospital, Goods, Dumb Waiter and Double-Decker.
- c) Sky lobby, Lift lobby and Lift interiors.
- d) Elevating a building: Design considerations - location in building, serving floors, grouping, size, shape of passenger car and door arrangements.
- e) Service requirements, Quality and Quantity of services, time, passenger handling capacity, space and physical requirements, machine room spaces and typical layout of machine room, machine roomless elevator.

Unit IV: Escalators and Travelators**08 Hours**

- a) Escalator- Definition, application, location and arrangement in buildings, space requirements, working mechanism of escalators.
- b) Comparison between Escalators and Elevators.
- c) Conveyor belt and Travelators - Definition, application, location and arrangement in buildings, space requirements, working mechanism of Travelators

Unit V: Fire protection in Buildings**10 Hours**

- a) Causes of fire, Reasons for loss of life due to fire, development of fire, fire load, fire hazards, Grading of structural elements due to fire and classification of building types as per National Building Code (NBC).
- b) Characteristics of Combustible and Non-Combustible materials in case of Fire.
- c) Concepts of Passive fire protection and control - including Design of escape routes, Fire safety measures in Lifts, Pressurization and Compartmentation.
- d) Active fire control using portable extinguishers. Basic concepts of Fixed fire fighting installations, Automatic fire detection and alarm systems, Planning of Fire control room.
- e) Measures for fire protection and fire fighting requirements for High-rise buildings in India.
- f) Fire safety measures for Basements.

Self Learning Topic: Case Study of Fire Fighting Measures in a building.

References :

1. Roy J Dosat, Principles of Refrigeration, John Wiley and Sons, New York,1965 and onwards
2. Prasad Manohar, Air Conditioning and Refrigeration Data Hand book, New Age International Pvt. Ltd, Hyderabad,2009 and onwards
3. National Building Code of India, Bureau of Indian Standards, New Delhi,2005 and onwards
4. Arora Ramesh Chandra, Refrigeration and Air Conditioning, Tata McGraw Hill, New Delhi,2004 and onwards
5. Anand M., Refrigeration And Air Conditioning, Asian Book Pvt. Ltd. New Delhi,2002 and onwards
6. Das Akhil K., Principles of Fire Safety Engineering: Understanding Fire and Fire Protection, PHI Learning Pvt. Ltd, New Delhi,2014
7. Jain V. K, Fire Safety in Buildings, New Age International Pvt. Ltd, Hyderabad,2010

Course delivery methods

- 1 Lectures
- 2 Documentary Videos

Assessment methods

- 1 Assignment
- 2 Internal Assessment Test
- 3 Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar / Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
➤ Minimum marks required to qualify for SEE: 25 out of 50.					

Scheme of Semester End Examination (SEE):

- 1 It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
- 2 **Minimum marks required in SEE to pass: 20 out of 50.**
- 3 Question paper contains two questions from each unit each carrying 20 marks. Students have to answer One full question from each unit.
- 4 **For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.**

STRUCTURES-V

Course Code	18TEC5.3N	Credits	3
Course type	BS&AE	CIE Marks	50 Marks
Hours/week: L-T-P	3 Hrs. (Lectures) per Week	SEE Marks	50 Marks
Total Hours	Lectures =42Hrs; Total = 42hrs	SEE Duration	3 Hours for 100 Marks

Course learning objectives

To introduce students to the Design of Steel Structures.

Unit I: Introduction

05 Hours

- a) Advantages and Disadvantages of Steel structures.
- b) Loads and Load combinations, Design considerations.
- c) Limit State Method (LSM) of design, Failure Criteria for steel, Codes, Specifications and Section classification.
- d) Types of Connections and Types of Joints

Unit II: Bolted and Welded Connections

09 Hours

- a) Behavior of bolted joints and welded connections.
- b) Advantages and Disadvantages.
- c) Design strength of Bolts (no staggering) and welds.
- d) Simple and Eccentric Connections.

Unit III: Design of Tension Members

08 Hours

- a) Introduction.
- b) Types of tension members.
- c) Modes of failure, factors affecting the strength of tension members.
- d) Sections used for tension members.
- e) Design of tension members.

Unit IV: Design of Compression Members and Column Bases

10 Hours

- a) Introduction.
- b) Types of compression members.
- c) Behavior of compression members, Modes of failure.
- d) Sections used for compression members.
- e) Design of compression members, Built up compression members.
- f) Design of simple slab base (no gusseted base).
- g) Simple column and Footing connection details.

Unit V: Design of Beams**10 Hours**

- a) Introduction.
- b) Types of Beam, Lateral stability of beams, factors affecting lateral stability.
- c) Behavior of simple and built-up beams in bending (without vertical stiffeners).
- d) Design strength of laterally supported beams in Bending.

Self-Learning Topic: Study of famous steel structures e.g. Seagram Building, Salginatobel bridge, Millennium Arch.

Books:

1. Subramanian N., Design of Steel Structures, Oxford University Press, Oxford, Third edition and onwards.
2. Duggal S. K., Limit State Design of Steel Structures, TATA McGraw Hill, New Delhi, Third edition and onwards.
3. IS875-1987, Bureau of Indian Standards, New Delhi.
4. Steel Tables, Birla Publication Pvt. Ltd, New Delhi.
5. Gauld Bryan G B, Structures for Architects, Pearson Education Limited, Harlow, Third edition and onwards.

Course delivery methods		Assessment methods	
1	Lectures	1	Assignment
2	Documentary Videos	2	Internal Assessment Test
		3	Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of best two IA tests	Average of assignments (Two) /activity	Quiz/Seminar / Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
<ul style="list-style-type: none"> ➤ Writing two IA tests is compulsory. ➤ Minimum marks required to qualify for SEE: 25 out of 50 					

Scheme of Semester End Examination (SEE):

1.	It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2.	Minimum marks required in SEE to pass: 20 out of 50
3.	Question paper contains two questions from each unit each carrying 20 marks. Students have to answer One full question from each unit.
4.	For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.

HISTORY OF ARCHITECTURE-V

Course Code	18HUM 5.1N	Credits	3
Course type	PC	CIE Marks	50 Marks
Hours/week: L-T-P	3Hrs (Lectures) per Week	SEE Marks	50 Marks
Total Hours	Lecture = 42 Hrs; Total = 42Hrs.	SEE Duration	3 Hours for 100 Marks

Course learning objectives

1. To present students with an overview of the History of Renaissance, Baroque and Neoclassical Architecture.
2. To give an understanding of Industrial Revolution and Western Architecture during Modern periods.

Unit-I: Renaissance and Baroque

08 Hours

- a) Renaissance: Background and influences on Renaissance Architecture. Critical appreciation of works and synoptic study of Architectural characteristic features: e.g. St. Andrea, Mantua and Palazzo Rucellai, Florence by Leon Alberti; Villa Rotunda (Capra), Vicenza by Andrea Palladio; St. Peter, Rome by Michelangelo and St. Paul's Cathedral, London by Sir Christopher Wren.
- b) Baroque: Critical appreciation of works and synoptic study of Architectural characteristic features: e.g. St. Peter's Piazza, Rome by Bernini and Palace of Versailles, Paris by Louis Le Vau.

Self Learning Topic: Study of Dome of Florence by Filippo Brunelleschi.

Unit-II: Revivals

08 Hours

- a) A brief account of the situation before the changeover to Modern Architecture in Europe.
- b) Palladian Revival: e.g. Chiswick House, London
- c) Greek Revival: e.g. St. Pancras Church, London.
- d) Gothic Revival: e.g. Palace of Westminster, London.

Self Learning Topics: Study of Mereworth castle, Kent and Arc de Triomphe, Paris

Unit-III: Impact of Industrial Revolution in Europe

08 Hours

- a) Social, Economical, Political, Technological and Material changes affecting society and architecture.
- b) Early Industrial Buildings: e.g. Crystal Palace, London and Eiffel Tower, Paris.
- c) Movements after Industrial Revolution: Arts and Crafts Movement- Ideas and works of William Morris: e.g. Red House, Kent. Art Nouveau Movement- Ideas and works of Antonio Gaudi and Victor Horta: e.g. Casa Mila, Tassel House, Brussels, Paris Metro station.

Unit-IV: Early Modern Movements

08 Hours

- a) Chicago School: Ideas and works of Louis Sullivan: e.g. Wainwright Building and Guaranty building, Chicago.

- b) Bauhaus School: Ideas and works of Walter Gropius: e.g. Fagus Factory and Bauhaus School at Dessau.
- c) De Stijl movement: Ideas and works of Gerrit Rietveld: e.g. Schroder house, Netherlands.

Unit-V: Modern Architecture- Theories and Works of Great Masters 10 Hours

- a) Le Corbusier: Humanist Mechanomorphism and Five points of Architecture- e.g. Villa Savoye, Paris. Brutalism- e.g. Unite de Habitation, Marseilles and Surrealism: e.g. Notre Dame du Haut, Ronchamp, France.
- b) Frank Lloyd Wright: Organic Architecture- e.g. Robie House, Chicago and Falling Waters, Pennsylvania.
- c) Mies van der Rohe: Less is More- e.g. Barcelona Pavilion, Barcelona; Dr Farnsworth house, Illinois; God is in Detail: e.g. Seagram Building, Manhattan.
- d) Oscar Niemeyer: Sculptor of Monuments- e.g. National Congress Complex and Metropolitan Cathedral, Brasilia.

Self Learning Topics: Study of Johnson Wax Building, Crown Hall, MIT and Alvorada Palace.

Reference:

1. **Frampton Kenneth, Modern Architecture –A Critical History, Thames and Hudson, London. Edition 1985 and Onwards**
2. **Trachtenberg Marvin and Hymen Isabelle, Architecture–Prehistory to Post-Modernism, Harry N. Abrams, B.V., The Netherlands. Edition 1990 and Onwards**
3. **Curtis William, Modern Architecture since 1900, Phaidon, London. Edition 1996 and Onwards**
4. **Fletcher Banister, A History of Architecture, CBS publishers and distributors, Delhi Edition 1975 and Onwards.**

Course delivery methods		Assessment methods	
1	Lectures	1	Assignment
2	Documentary Videos	2	Internal Assessment Test
		3	Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar/Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
<p>➤ Writing two IA tests is compulsory.</p> <p>➤ Minimum marks required to qualify for SEE: 25 out of 50</p>					

Scheme of Semester End Examination (SEE):

1.	It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2.	Minimum marks required in SEE to pass: 20 out of 50
3.	Question paper contains two questions from each unit each carrying 20 marks. Students have to answer one full question from each unit.

VACATION ASSIGNMENT –II

Course Code	18HUM 5.2N	Credits	CA
Course type	PC	CIE Marks	100
Hours/week: L-T-P	-	SEE Marks	-
Total Hours	-	SEE Duration	-

Course learning objectives
To expose students to Historical, Vernacular and Contemporary Architecture.
Vacation assignment is to be undertaken after the end of IV semester exam and before the commencement of V semester classes. This assignment could be a study tour for visiting places of Architectural interest or measured drawing and documentation of a noted building. The assignment may be given as group work. The students have to submit a report on the study tour or the measured drawing within 15 days from the beginning of the V semester which will be assessed for progressive marks.

Scheme of Continuous Internal Evaluation (CIE):

Components	Portfolio /Report Marking	Average of assignments (Two) / activity	Quiz/Seminar/Project	Class Participation	Total Marks
Maximum Marks: 100	80	-	-	20	100

- Note: This subject does not have a Semester End Examination (SEE).
- **Minimum marks required to pass CIE: 50 out of 100**

ARCHITECTURAL DESIGN – V

Course Code	18DES 6.1N	Credits	12
Course type	PC	CIE Marks	50 Marks
Hours/week: L-T-P	8Hrs (8 Studios) per Week	SEE Marks	50 Marks
Total Hours:	Studio=112Hrs; Total=112 Hrs.	SEE Duration	Viva

Course learning objectives

- 1.To understand Campus and introduce principles of campus design.
- 2.To understand various types of Institutional Campuses and elements involved in Planning and Designing.
3. To understand the role of scales, functions, character of built form in creating formal and informal spaces of learning and of built environment in nurturing campus activities.
4. To enable students to develop design solutions demonstrating the principles of campus design.

Unit I: Principles of Campus Planning

08 Hours

Studying, documenting and analyzing elements involved in campus design like zoning, networking, orientation, spatial organizations of built and unbuilt spaces, building scale, character, landscape elements, nature of formal and informal learning spaces and activity patterns through case studies.

Unit II: Design Project

104 Hours

Design of Institutional project shall demonstrate understanding of principles of campus planning and role of built environment in facilitating learning activities. The design shall respect climate, environment and ecological factors of the 'Context'. The campus design will be attempted as a two stage project, with Site/Master planning as the first stage followed by detailed Architectural design proposal of identified buildings. Projects such as campus of learning for specialized/ higher education, vocational training campus in urban/ rural context may be attempted.

e.g.: Engineering College, Medical College, Management Institute, Research Centers, Institutions of Art and Architecture and similar scale projects.

Design Methodology:

The design process comprises various stages like understanding - learning through various case studies, site selection and analysis, data collection, programme formulation, concept, design drawings and final design submission.

References:

1. **Kanvinde Achyut, Miller.James H, Campus Design in India: Experience of a Developing Nation Jostens/American Yearbook Company, USA. 1969 and onwards.**
2. **Little field David, Metric Handbook – Planning and Design Data, Architectural Press,UK. 2011 and onwards.**
3. **Ernst and Neufert Peter, Neufert Architects’ Data, Third Edition Blackwell Publishing, New Jersey,US, 1987 and onwards.**
4. **Lynch Kevin and Hack Gary, Site Planning, Third Edition, The MIT Press,Cambridge.**
5. **Schmertz Milred F, Campus Planning and Design - An Architectural Record Book, McGraw - Hill, New York, US, 1972 and onwards.**

Course delivery methods

1. **Case Study/Site Study**
2. **Design Discussion**

Assessment methods

1. **Study Report**
2. **Design Reviews**
3. **Viva**

Scheme of Continuous Internal Evaluation (CIE):

Components	Portfolio Marking	Average of assignments (Two) /activity	Quiz/ Seminar/ Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
➤Minimum marks required to qualify for SEE: 25 out of 50					

Scheme of Semester End Examination (SEE):

- 1.It will be conducted as 50 marks viva-voce exam and same will be considered for the calculation of SGPA and CGPA.
- 2.**Minimum marks required in SEE to pass: 20 out of 50**

THEORY OF ARCHITECTURE-II

Course Code	18DES6.2N	Credits	3
Course type	PC	CIE Marks	50 Marks
Hours/week: L-T-P	3Hrs. (Lectures) per Week	SEE Marks	50 Marks
Total Hours:	Lecture = 42 Hrs Total = 42Hrs.	SEE Duration	3Hours for 100 Marks

Course learning objective

To provide an insight into the ideas of influential theorists in shaping the course of Western Architecture from antiquity to the present time.

Unit 1: Introduction to Theory in Antiquity

12 Hours

- a) Introduction to Theory in Antiquity: Marcus Vitruvius and his multi-volume work entitled De-Architectura.
- b) Introduction to Theory in Renaissance: Leon Alberti and Andrea Palladio.
- c) Jacques François Blondel and Claude Perrault of French Academic Tradition.
- d) 18th Century Theory: Ideas of Laugier and Boullée.

Unit II: 19th Century Theories and Modern Movement

09 Hours

- a) 19th Century Theory: Concepts of Viollet Le Duc, John Ruskin and William Morris
- b) Early modernist Ideas of Adolf Loos, Erich Mendelsohn.
- c) Modernist ideas of Le-corbusier, Kenzo Tange.

Self Learning Topics: Study of other early modernist movements.

Unit III: Post Modern Theory and Deconstructivism

07 Hours

- a) Ideas on Post-Modern Classicism by Robert Venturi and Charles Jencks.
- b) Contribution to architectural ideas of Kenneth Frampton and Christopher Alexander.
- c) Deconstruction: Fundamental beliefs and philosophy and ideas of Peter Eisenman.

Unit IV: Parallel Theories

07 Hours

- a) Ideas of Hassan Fathy and Aldo Rossi.
- b) Contribution to Architectural Thought: Ideas of Amos Rapoport, Geoffrey Broadbent - design generation theories.
- c) Ideas of Rem Koolhaas and Peter Zumthor.

Unit V: Architectural Criticism

07 Hours

- a) Architectural Criticism: Definition and Sources, its role and function in Architecture and the relationship between criticism and judgment in terms of thinking, discussing and writing on architecture, social and aesthetic issues.
- b) Architectural Criticism types: Definition and sources according to Wayne Attoe.

Self Learning Topics: Literature study of an Architectural critique.

References:

1. Vitruvius, Morgan M. H., **Ten Books on Architecture**, Dover Publications Inc. New York, US. 1960 and onwards.
2. Ruskin John, **Seven Lamps of Architecture**, Dover Publications Inc. New York, US. 1989 and onwards.
3. Broadbent Geoffrey, **Design in Architecture: Architecture and the Human Sciences**, John Wiley & Sons, 1973 and onwards.
4. Bhatia Gautham, **A moment in Architecture**, Tulika Books, New Delhi, India. 2002 and onwards.
5. Curtis William, **Modern Architecture Since 1900**, Phaidon Press, London, UK. 1996 and onwards.
6. Trachtenberg M, Hyman I., **Architecture from Prehistory to Postmodernism**, Pearson edition, London, England, 2002 and onwards.
7. Wayne A., **Architecture and Critical Imagination**, John Wiley & Sons Inc, New York, US. 1978 and onwards.
8. Venturi Robert, **Complexity and Contradiction in Architecture**, Museum of Modern Art, New York, US. 1977 and onwards.
9. Baker H. G., **Design Strategies in Architecture: An Approach to the Analysis of Form**, Taylor & Francis Publishing, Abingdon, United Kingdom, 2003 and onwards.
10. Schulz Norberg C., **Genius Loci: Towards a Phenomenology of Architecture**, Academy Editions, London. UK, 1980 and onwards.
11. Binet Helene, Zumthor Peter, **Buildings and Projects - Peter Zumthor**, Scheidegger and Spiess; Slp edition,first edition,1999 - onwards.

Course delivery methods		Assessment methods	
1	Lectures	1	Assignment
2	Documentary Videos	2	Internal Assessment Test
		3	Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar/Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
<p>➤Writing two IA tests is compulsory.</p> <p>➤Minimum marks required to qualify for SEE: 25 out of 50</p>					

Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50**
3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer One full question from each unit.

LANDSCAPE ARCHITECTURE

Course Code	18DES 6.3N	Credits	3
Course type	DES	CIE Marks	50 marks
Hours/week: L-T-P	4Hrs (2Lectures+2Studio Exercises) per Week	SEE Marks	50 marks
Total Hours	Lecture = 28 Hrs; Studio Exercises = 28 Hrs; Total = 56 Hrs.	SEE Duration	3 Hours for 100 Marks

Course learning objectives

To provide an insight into the discipline of Landscape architecture and to develop basic skills required in handling Landscape projects.

Unit I: Introduction

06 Hours

- a) Introduction to Landscape Architecture, Definitions and Basic terms.
- b) Hardscape and Softscape, Materials in Hardscape and Softscape.
- c) Trees, Shrubs, Grasses, Groundcovers - Definition, Growth conditions, Characteristics, Landscape values, Environmental values and Aesthetic values.

Self Learning Topics: Study of application of tree - based on environmental, aesthetic or any other Landscape value.

Unit II: Site Analysis and Site Planning

08 Hours

- a) How Site affects design –Organization of the garden related to the characteristics of the site, its topography and soils, orientation and views, existing features and trees affecting property and climatic conditions.
- b) Site Analysis- Regional influences on site, topographic survey, base map, overlays of slopes and drainage, geological conditions and soils, hydrology and water resources, vegetation, structures, circulation, utilities, climate, visual analysis, impact assessment, preservation and conservation, Site analysis map.
- c) Site planning -Site structure diagram (Schematic plan and site plan (Conceptual) and Site structure expression.

Self Learning Topics: Analysis of One site leading to schematic plan preparation based on natural, cultural, visual or historic factors

Unit III: Elements of Landscape and their application in landscape design and historic Gardens

08 Hours

Primary landscape Elements: Landforms, Water and Vegetation, design considerations and their role in articulating outdoor spatial design. Plant Material study and Planting Design, Planting plan, Plant Documentation and its relevance in Landscape.

Historic Gardens of Babylon (hanging gardens), Egypt and Persia , Spain (Allahambra), Greece and Rome , Medieval Europe- Italy (villa medici by Michelozzo, Villa De Este), France (Andre de notre and Vaux le vicomte), Formal garden of England(colonial gardens and gardens of William Kent),Japanese Gardens(Karensansui, Tsukiyama and Zen, Mughal Gardens and Indian Garden.

Unit IV: Design Philosophies of noted landscape Architects.**06 Hour**

Study of Design philosophies of Contemporary Indian Landscape Architects through their projects such as Ar. Ravindra Bhan, Prof. Mohammed Shaheer, Dr. Priyaleen Singh. Study of Design philosophies of noted Landscape Architects like Geoffrey Jellicoe, Thomas Church, Luis Barragan, Dani Karavan and Martha Schwartz, Mayalin, Peter walker and partner through their noted works.

Unit V: Landscape Design Project**28****Hours**

- a) Study of existing Landscape typologies like Courtyards(residential and public), Public Gardens and Urban spaces.
- b) Streets and street furniture.
- c) Demonstration of an understanding of landscape design through simple and small design exercises as Studio project. Clarity in design process, detail development and representation of landscape design scheme is emphasized

References:

1. Simonds J.O, Landscape Architecture, McGraw-Hill Education, Delhi, 1983 and onwards.
2. Laurie Michael, Introduction to Landscape Architecture, Elsevier, Netherland 1975 and onwards.
3. Jellicoe Geoffery, The landscape of Man, Thames and Hudson, London, 2006 and onwards.
4. Mcharg Ian, Design with Nature, John Wiley and Sons, New Jersey, 1992 and onwards.
5. KrishenPradip, Trees of Delhi, Penguin, New Delhi,2006 and onwards.
6. Church Thomas D., Gardens are for people,third edition , University of California press.,London.1995.
7. Shaheer Mohammad, Dua GeetaWahi and Pal Aditi, Landscape Architecture in India A reader,LA,Journal of landscape Architecture India 2013.
8. Minakshi Jain &Singh.I.P, Landscape architecture History, Ecology and patterns,Copal publishing Group,2017.
9. Bell Simmonds.,Patterns, Perception and Processes, E & FN Spon,London,1999

Course delivery methods		Assessment methods
Lectures	1	Assignments
Documentary Videos	2	Internal Assessment Test
Studio Exercise	3	Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of best two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar /Project	Class participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
<p>➤ Writing two IA tests is compulsory.</p> <p>➤ Minimum marks required to qualify for SEE:25 out of 50</p>					

Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50**
3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer One full question from each unit.

BUILDING CONSTRUCTION AND MATERIALS – VI

Course Code	18TEC 6.1N	Credits	5
Course type	BS&AE	CIE Marks	50 Marks
Hours/week: L-T-P	5 Hrs (1Lecture + 2Studios+ 2Studio Exercise) per Week	SEE Marks	50 Marks
Total Hours	Lectures = 14 Hrs; Studio = 28 Hrs;Studio Exercise = 28 Hrs; Total = 70 Hrs	SEE Duration	Viva

Course learning objectives

- 1.To study construction details of Interior elements for Residential and Office spaces.
- 2.To study materials for Interior finishes.

Unit I: Residential Interiors

14 Hours

- a)Details of a typical Wardrobe in plywood.
- b)Details of the Queen size bed with side tables and headboard in plywood.
- c>Showcases, book shelves and cabinets in plywood and glass.
- d)Modular kitchen with overhead cabinets.

Self Learning Topics: Study of hardwares, fasteners and fittings required for the above mentioned furniture.

Unit II: Office Interiors

14 Hours

- a) Introduction to table design, types of tables, function and usage.
Detail of any one table- Reception table/Conference table/Workstation module/Executive table.
- b) Detailing of File cabinets and Storage systems.

Self Learning Topics: Case study and presentation of Interior details of one small commercial establishment. e.g.: Salon, Bakery, Retail store or Cafe.

Unit III: Interior Partition Systems

14 Hours

- a)Partition systems in Glass and Aluminium with openings.
- b)Partition systems in Plywood and Drywall with openings.
- c)Wall Panelling in Wood/Plywood/Glass/PVC/Cement fibre boards.

Unit IV: False Ceiling Systems.

14 Hours

- a) Introduction to different types of False Ceiling.
- b)False ceiling in Plywood, Glass, Wood and Wood products.
- c)False ceiling - Grid ceiling and continuous ceiling with Integrated Illumination system using Cement Fibre boards, Gypsum boards, PVC and Plaster of Paris.

Unit V: Thermal Insulation and Interior finishes.

14 Hours

- a)Thermal insulation materials and methods for walls and roof.
- b)Recycled Wood products, Charcoal boards, PVC sheets, Duco finish, WPC and Corian finish.
- c) Wallpapers, Fabrics, Artificial stones, Corten steel and HPL.
- d) Plaster of Paris and Gypsum.

Self Learning Topics: To collect samples, rates and manufacturer's information of the above mentioned materials.

NOTE: Site Visits and documentation for each module and study of material application shall form as part of the portfolio.

References:

1. Mackey W B, **Building Construction, Volume 3, Orient Longman, London.**
2. Mackey W B, **Building Construction, Volume 4, Orient Longman, London.**
3. Chudley R, **Construction Technology, Volume 3, ELBS, England.**
4. Barry R, **Construction of Buildings, Volume 2, EWP, New Delhi.**

Course delivery methods		Assessment methods	
1	Lectures	1	Assignments
2	Documentary Videos	2	Viva
3	Sitevisits		

Scheme of Continuous Internal Evaluation (CIE):

Components	Portfolio Marking	Average of assignments (Two)/activity	Quiz/Seminar/Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
➤Minimum marks required to qualify for SEE: 25 out of 50					

Scheme of Semester End Examination (SEE):

1. It will be conducted as 50 marks viva-voce exam and same will be considered for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50**

STRUCTURES-VI

Course Code	18TEC6.2N	Credits	3
Course type	BS&AE	CIE Marks	50 Marks
Hours/week: L-T-P	3 Hrs. (Lectures) per Week	SEE Marks	50 Marks
Total Hours	Lectures =42Hrs; Total = 42hrs	SEE Duration	3 Hours for 100 Marks

Course learning objectives

- 1.To give an introduction to pre-stressed concrete.
- 2.To outline and summarize special structural form.
- 3.Explain the concept of RC-detailing.

Unit I: Introduction to Pre-stressed concrete **06 Hours**

- a)Basic concepts of Pre-stressed concrete.
- b)Materials used in pre-stressed concrete-High strength concrete and high strength steel
- c)Different types of Pre-stressing systems.
- d)Advantages of Pre-stressed concrete.
- e)Application of Pre-stressed concrete.

Unit II: Analysis of Pre-stress sections under flexure **12 Hours**

- a)Basic assumptions.
- b)Analysis for flexure.
- c)Resultant stresses at a section.
- d)Pressure Line or Thrust line
- e)Concept of Load Balancing.

Unit III: Losses in Pre-stressing **10 Hours**

- a)Nature of losses of Pre-stress.
- b)Loss due to Elastic Deformation of Concrete.
- c)Loss due to Shrinkage of Concrete.
- d)Loss due to Creep of Concrete.
- e)Loss due to Relaxation of stress in steel.
- f)Loss of stress due to friction.
- g)Loss due to Anchorage slip.
- h)Total losses allowed for in design.

Unit IV: Special structural forms **06 Hours**

- a)Introduction to special structural forms
- b)Basic structural concepts about Shells, Folded plates, Domes, Grid structures, Flat slabs (RCC), Space frames, Tensile structures and Pneumatic structures. (no problems).

Self-learning topic: Study of any special structural form with an example

Unit V: Detailing of structural elements**08 Hours**

- a) Detailing of RC Beam (singly and doubly reinforced)
- b) Detailing of RC Slab (one way and two way)
- c) Detailing of RC Column footing (square isolated)
- d) Detailing of dog-legged staircase.

Note: The Structural Concepts and theory introduced in non-mathematical terms will be explored with field visits, applications and examples in the studio classes

References:

1. Krishna Raju .N: Pre-stressed concrete, Tata McGraw-Hill Publishing Company Limited Publications, New Delhi, Fifth Edition and onwards.
2. Schodek Daniel: Structures, Pearson, Seventh edition and onwards.
3. Krishna Raju N. and Pranesh RN. : RCC-Design and Practice, Published by New Age International (P) Limited (2014), First Edition and onwards.

Course delivery methods		Assessment methods	
1	Lectures	1	Assignment
2	Documentary Videos	2	Internal Assessment Test
		3	Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of best two IA tests	Average of assignments (Two) /activity	Quiz/Seminar /Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
<p>➤ Writing two IA tests is compulsory.</p> <p>➤ Minimum marks required to qualify for SEE: 25 out of 50</p>					

Scheme of Semester End Examination (SEE):

1.	It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2.	Minimum marks required in SEE to pass: 20 out of 50
3.	Question paper contains two questions from each unit each carrying 20 marks. Students have to answer one full question from each unit.

PHYSICAL PLANNING

Course Code	18HUM 6.1N	Credits	3
Course type	PC	CIE Marks	50 Marks
Hours/week: L-T-P	3 Hrs (Lectures) per Week	SEE Marks	50 Marks
Total Hours	Lectures=42 Hrs; Total = 42 Hrs	SEE Duration	3 Hours for 100 Marks

Course learning objectives

1. To familiarize students with the Planning principles demonstrated through various Civilizations.
2. To introduce various planning concepts and theories, discuss urbanisation and its impact on City planning.
3. To introduce various processes and techniques used in planning cities.

Unit I: History of Human Settlements

10 Hours

- a) An Introduction to Human Settlements and understanding the historical development of a City as a product of socio-cultural, economic and political ideologies.
- b) History of City Planning: Principles of settlement planning in various historical periods like Mesopotamia, Egypt, Greek, Roman, Medieval, Renaissance and Neoclassical.
- c) Cities of Vedic period, Indus valley, Temple towns, Cities of Mughal period and British-Colonial period.
- d) City Beautiful movement.

Unit II: Planning Theories and Models

09 Hours

- a) Urban settlements and rural settlements: Origins, evolution and growth of settlements, characteristics, relation and differences.
- b) Theories enunciated by Ebenezer Howard, Soria Y. Mata, Clarence Arthur Perry, Clarence Stein, Patrick Geddes, C.A. Doxiades, Le-Corbusier, Ian Mcharg and Jane Jacobs.
- c) Concentric zone model, Sector theory model and Multiple nuclei model.

Unit III: Urbanization and Components of a City

08 Hours

- a) Industrialization, Urbanization and its impact on city planning: Classification of Cities - based on form, function and population.
- b) Components of a City: Land use and activity pattern, traffic and road networks, density of population and population distribution, Central Business District, Residential Neighborhoods, urban nodes, fringe areas and suburbs.
- c) Emergence of new forms of developments: Self Sustained Communities, Special Economic Zones (SEZ), Transit Oriented Development (TOD) and Integrated townships.
- d) Introduction to the concept of Livable cities, Sustainable cities and Smart cities.

Self Learning Topic: Impact of Globalization on Indian cities.

Unit IV: Process and Techniques of City Planning**08 Hours**

- a) Introduction to Planning Process: City planning, Role of planners, aims and objectives of city planning.
- b) Planning Techniques: Study and analysis of existing settlements - Introduction to the methodology of conducting diagnostic surveys, land use survey, density survey, FSI survey, traffic surveys and presentation of data.
- c) Introduction to the concept of Development plan, Master plan, Structure plan and Perspective plan.
- d) Land use planning and zoning.

Unit V: Concept of Regional Planning and Urban Renewal**07 Hours**

- a) Regional Planning: Definition of a Region, basic principles of regional planning, various types of regions.
- b) Slums: Causes and Effects, prevention of formation of slums and squatter settlements.
- c) Urban Renewal: Definition of Urban Renewal, Redevelopment, Rehabilitation and Conservation.

Self Learning Topic: Slum Redevelopment Case-studies.**References:**

1. Chapin III F. Stuart, Kaiser Edward J. and Godschalk David R., Urban Land Use Planning, University of Illinois Press, Illinois, 1995 and onwards.
2. Dutt, Binode Behari, Town Planning in Ancient India, Gyan Books Pvt. Ltd., Delhi, 2009
3. Gallion Arthur and Eisner, The Urban Pattern: City Planning and Design, CBS Publisher, New Delhi, 2005 and onwards.
4. Lynch Kevin, The Image of the City, Harvard University Press, Harvard, 1960 and onwards.
5. Correa Charles, Housing and Urbanisation, Thames & Hudson, London, 2000.
6. Gordon Cullen Thomas, The Concise Townscape, Architectural Press Routledge, 1961 and onwards.
7. Hough Michael, Cities and Natural process: A Basis for Sustainability, Routledge, 1995 and onwards.
8. Katz Peter, The New Urbanism: Toward an Architecture of Community, McGraw Hill Professional, 1993 and onwards..
9. Evans B. Peter, Livable Cities? - Urban Struggles for Livelihood and Sustainability, University of California Press, 2002.

Course delivery methods		Assessment methods	
1	Lectures	1	Assignment
2	Documentary Videos	2	Internal Assessment Test
		3	Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar/Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
<p>➤ Writing two IA tests is compulsory.</p> <p>➤ Minimum marks required to qualify for SEE: 25 out of 50</p>					

Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50**
3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer one full question from each unit.

CONTEMPORARY ARCHITECTURE

Course Code	18HUM6.2N	Credits	3
Course type	PC	CIE Marks	50 Marks
Hours/week: L-T-P	3Hrs (Lecture) per Week	SEE Marks	50 Marks
Total Hours	Lecture = 42 Hrs; Total = 42Hrs.	SEE Duration	3 Hours for 100 Marks

Course learning objective

To provide an insight of Contemporary trends in Indian and Western Architecture in terms of ideas and directions.

Unit-I: Masters of Post-Independence Architecture in India –I 09 Hours

a) Ideas and Works of Le Corbusier (Legislative Assembly Complex including High Court, Legislative Assembly and Secretariat, Chandigarh), Louis Kahn (IIM, Ahmedabad).

b) Ideas and Works of B.V. Doshi (CEPT, Ahmedabad and IIM, Bangalore) and Charles Correa (Gandhi Smarak, Ahmedabad and Bharat Bhavan, Bhopal).

Self Learning Topics: Mill Owners Association, Ahmedabad; Salk Institute, La Jolla; Sangath, Ahmedabad; Kala Academy, Goa.

Unit-II: Masters of Post-Independence Architecture in India –II 09 Hours

a) Ideas and Works of Raj Rewal (Pragati Maidan, New Delhi), Achyut Kanvinde (IIT, Kanpur), Anant Raje (IIFM, Bhopal), Has Mukh Patel (Newman Hall, Ahmedabad)

b) Ideas and Works of Laurie Baker (Centre for Development Studies, Thiruvananthapuram)

Self Learning Topics: Asiad Games Village, New Delhi; Nehru Science Centre, Mumbai; Engineering College, Kota; Management Development Centre, IIM-A; St. John Cathedral at Thiruvalla.

Unit-III: Contemporary Western Architects - I 08 Hours

Ideas and Works of Richard Mier (Jubilee Church, Rome), Sir Norman Foster (Hong Kong Shanghai Bank, Hong Kong), Renzo Piano (Pompidou Centre, Paris), Santiago Calatrava (Olympic Stadium, Athens)

Self Learning Topics: Smith House, Connecticut, Renault Distribution Centre, Swindon, Menil Museum, Houston, Lyon-Satolas Railway Station, Lyon

Unit-IV: Contemporary Western Architects - II 08 Hours

Ideas and Works of Bernard Tschumi (Parc de la Villette, Paris), Frank O. Gehry (Guggenheim Museum, Bilbao), Zaha Hadid (Vitra Fire Station, Weil-am-Rhein), Daniel Libeskind (Jewish Museum, Berlin), Rem Koolhaas (Seattle Public Library, Seattle).

Unit-V: Regionalism, Tropical Modernism and Minimalism 08 Hours

a) Geoffrey Bawa (Heritage Kandalama, Dambulla), Ricardo Legorreta (Pershing Square, Downtown, Los Angeles) Alvaro Siza (Public Library, Viana do Castelo)

b) Works of Tadao Ando (Church of the Light, Osaka, Naoshima Contemporary Art Museum, Naoshima).

Reference:

1. Morgon, Ann Lee & Taylor Colin: Contemporary Architecture, St James Press, London, Edition 1987 and Onwards
2. Bahga, Bahga and Bahga: Modern Architecture in India, Galgotia Pub. Co, New Delhi 1993 and Onward
3. Curtis William Modern architecture since 1900, Phaidon, London Edition 1996 and Onwards
4. Jodidio Philip: Hadid, Complete works 1979-2013, Taschen, Berlin Edition 2009 and Onwards
5. Jodidio Philip: Ando Complete Works, Taschen, London Edition 2007 and Onwards

Course delivery methods		Assessment methods	
1	Lectures	1	Assignment
2	Documentary Videos	2	Internal Assessment Test
		3	Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of two IA tests	Average of assignments (Two) / activity	Quiz/ Seminar/Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50
<p>➤ Writing two IA tests is compulsory.</p> <p>➤ Minimum marks required to qualify for SEE: 25 out of 50</p>					

Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.
2. **Minimum marks required in SEE to pass: 20 out of 50**
3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer one full question from each unit.