



**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**



2nd Year 2018 N Scheme

Academic year 2021- 2022 onwards

Department: Architecture

Programme: B.Arch

1st to 10th Semester Scheme of Teaching and Examination

3rd to 4th 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 A/T	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	18TEC1.1N	BS&AE	Building Construction and Materials-I	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TEC1.2N	PC	Architectural Graphics-I	Architecture	0	1	3	4	3	10	40	50	-	100	-
	18TEC1.3N	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	Communication 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		Total	
										CP	PA	VIVA/TV	EXAM		
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	-
	18HUMB2.3N	SEC	Kannada	Architecture	2	0	0	2	1	5	20	-	25	50	2 hrs
	18HUMS2.3N														
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	EXAM		
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



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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	EXAM		
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	80	-	-	100	-
Total					13	8	6	27	28	80	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	EXAM		
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 IVsemester examinations, before the starting of V semester

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: 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	VIVA	EXAM		
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
GOGTE 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	VIVA	EXAM		
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

GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08

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 8.1N	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



Karnatak Law Society's
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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



Karnatak Law Society's
GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08
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 – II

Course Code	18DES3.1N	Credits	10
Course type	PC	CIE Marks	50 marks
Hours/week: L-T-P	7Hrs. (1Lecture+6Studio) per Week	SEE Marks	50 marks
Total Hours:	Lecture= 14 Hrs; Studio=84 Hrs Total= 98 Hrs	SEE Duration	Viva

Course learning objectives

- 1.To introduce students to the techniques of reading physical context and cultural context related to the built environment, such as site, site surroundings, climate, culture, etc. of the region.
- 2.To enable students to demonstrate a design solution which responds to context.

Unit - I: Introduction to Context and Architectural Response

08 Hours

Students will be introduced to the 'Theory of Context' related to built environment. Further students will present the literature case studies on works of Master architects, exploring ideas of cultural and physical contexts by analyzing the prominent buildings and presenting the outcome in the form of analytical drawings that will demonstrate the process of development of built form in response to Physical and Cultural Context.

Unit - II: Design Project

90 Hours

Major Design Project:

Project shall deal with two or more distinct contexts with identical design programme. Students shall study various elements of Physical and Cultural contexts like Site, Site surroundings, Climate, Culture, Architectural character of the region etc. The same shall be represented in the form of data collection using maps, sketches, abstract diagrams etc. Project, for e.g. design of Museum, Community center, Recreational club, Cultural Centre,, Primary School or project of similar nature and scale shall be chosen.

The study shall be demonstrated in the form of detailed scaled drawings.

Design Methodology:

The entire design process comprises of various stages of reading the context, understanding design and context through various stages such as case study, site selection and analysis, data collection, concept, conceptual design sketches, design drawings and final design submission.

Reference Books:

1. **Yi-fu Tuan, Space and Place, University of Minnesota Press, 25th edition, London,2001 and onwards**
2. **Benjamin Andrew, Architectural Philosophy- Repetition, Function and Alterity, Continuum International Publishing Group Ltd, 2000 and onwards**
3. **Leach Neil, Rethinking Architecture: Reader in Cultural Theory, T&F, 1997 and onwards**
4. **Tschumi Bernard, Event-Cities 3: concept vs. content, MIT Press c2004.**

Course delivery methods

1. **Lectures**
2. **Case Study presentation**
3. **Site study**
4. **Design Discussions**

Assessment methods

1. **Case study report assessment**
2. **Design Reviews**
3. **Design 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**
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.**

CLIMATOLOGY

Course Code	18DES3.2N	Credits	3
Course type	BS &AE	CIE Marks	50 Marks
Hours/week: L-T-P	3Hrs. (3Lecture) per Week	SEE Marks	50 Marks
Total Hours:	Lecture = 42 Hrs; Total = 42 Hrs	SEE Duration	3 Hours for 100 marks

Course learning objectives

1. To develop the knowledge required for understanding the influence of Climate on Architecture.
2. To acquaint students with Design considerations for Hot –Dry, Warm-Humid and Composite climatic zones.

Unit-I: Characteristics, Types of Climate and Site Climate 08 Hours

- a) Introduction to Climatology, Relation to Architecture, Role of the Designer. Relevance of climatic aspects in Architecture with some examples of Vernacular Architecture, like Bhunga houses and Kerala House. Elements of climate, measurement and representations of climatic data. Classifications and Characteristics of tropical climates. Major climatic zones of India.
- b) Site Climate: Natural factors and built elements affecting site climate.

Unit-II: Thermal Comfort and Thermal Performance 08 Hours

- a) Thermal Comfort Factors and Balance, Body's Mechanism of Heat Production and Loss, Methods of Heat Transfer, Definitions of Thermal comfort indices like Effective Temperature and CET. Heat Exchange of Buildings, Internal Heat Gain/ Loss, definitions of Sol Air Temperature, Solar Gain Factor.
- b) Thermal performance of building elements and construction techniques. Definitions of Periodic heat flow, Conductance, Resistance, Surface Conductance, U value, Time Lag & decrement factor, the Effect of Different Materials and Multilayered Bodies-Insulation/Cavity, and construction techniques for improving thermal performance of walls and roofs.
- c) Study of building examples to understand the use of materials in Architecture e.g. Jodhpur University by Ar. Uttam Jain and IIM-Bengaluru by Ar. B.V.Doshi.

Unit-III: Sun Path and Shading Devices 08 Hours

- a) Sun path diagram, use of solar charts in climatic design, Types of shading devices.
- b) Study of different traditional shading devices like Jharokha, Jaali walls and contemporary shading devices. Building examples to understand different shading devices shall include CEPT, Ahmedabad, Tower of shadows, High Court and Legislative building, Chandigarh.

Unit-IV: Natural Ventilation and Daylighting 08 Hours

- a) Functions of natural ventilation, Stack effect, effects of openings and external features on internal air flow, air movements around buildings.
- b) DayLighting: Daylight Factor, components of daylight factor, Advantages and limitations in different climatic zones, Light from walls and roof.

Self-Learning Topics: Study of examples of stack effect and natural ventilation in hot and dry climate and warm-humid climate in vernacular and contemporary Architecture.

Unit-V: Climatic Design Considerations**10 Hours**

a) Design considerations for buildings in Hot –Dry, Warm-Humid and Composite climatic zones.

b) Case Studies to understand climate responsive design considerations, like Sangath - Ahmedabad, Verem Housing - Goa and Asaid Games Village, Delhi.

Self-Learning Topics: Study of Case studies of buildings designed for climate responsiveness for understanding design considerations in Hot –Dry, Warm-Humid and Composite climatic zones.

References Books:

- 1 **Koenigsberger and Ingersol, Manual of Tropical Housing & Buildings (Part-II), Universities Press/Orient Blackswan, 1985 and onwards.**
- 2 **Krishnan Arvind, Baker & Szokolay, Climate Responsive Architecture, Tata McGraHill, New Delhi, 2001 and onwards.**
- 3 **Mujumdar Milli, Energy efficient buildings, TERI India publications, 2002 and onwards.**
- 4 **Rudofsky Bernard, Architecture without Architects, A Short Introduction to Non-Pedigreed Architecture, University of New Mexico Press, July 1st 1987 and onwards.**
- 5 **Fry Maxwell and Drew Jane, Tropical Architecture in the Dry and Humid Zones, Batsford, London, 1964 and onwards**

Course delivery methods

1. Lectures
2. Documentary Videos

Assessment methods

1. Assignments
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.
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.**

BUILDING CONSTRUCTION AND MATERIALS – III

Course Code	18TEC3.1N	Credits	5
Course type	BS&AE	CIE Marks	50 marks
Hours/week: L-T-P	5 Hrs. (1 Lecture + 2 Studios + 2 Studio Exercises) per Week	SEE Marks	50 marks
Total Hours:	Lecture =14 Hrs; Studio = 28 Hrs; Studio Exercise =28; Total = 70 Hrs	SEE Duration	Viva

Course learning objectives

1. To acquaint students with Construction Techniques and Practices pertaining to R.C.C. Foundations, Columns, Beams and Types of Slabs.
2. Introduction to Staircases.
3. To understand Paints, Plastering and Waterproofing materials and methods

Unit – I: Reinforced Cement Concrete

08 Hours

- a) Introduction to RCC Framed Structures and principles and methods of RCC structures.
- b) Scaffolding and formwork.
- c) Types of Piles - Precast Piles, Cast in-situ Piles. Methods of driving Piles and Pile caps.

Unit – II: RCC Foundations, Columns, Beams, Lintels and Slabs

14 Hours

- a) Foundation - Shallow and Deep foundations and types.
- b) Columns and beams
- c) Arches and Lintels.

Self learning topics: Documentation of the process of casting of RCC components.

Unit – III: RCC Slabs

20 Hours

- a) One-way and Two-way slab.
- b) Sloping slab.
- c) Cantilever slab.

Unit – IV: Staircases

14 Hours

- a) Introduction and Components of staircases.
- b) Types of Staircases - Staircase in Timber, Metal and R.C.C.

Unit – V: Plastering, Paints and Waterproofing

14 Hours

- a) Methods of Plastering, Internal, External Plastering and various plaster finishes like Grit Plaster and Waterproof Plaster.
- b) Types of Paints like Distempers, Emulsions, Oil based Paints, Cement Based Paints and Textured Paints, their Characteristics and application.

- c) Types of Varnish and Method of applying Varnish, French polish and Melamine finish.
- d) Waterproofing and Waterproofing materials like Chemical Admixtures and Surface applications.

Self learning topics: Market survey and documentation of different types of plasters, brands and varieties of paints and distempers, varnishes and samples of waterproofing products.

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

Reference Books:

1. Mackey W B, **Building construction, volume 3, Orient Longman, London, 1985 and Onwards.**
2. Chudley R, **Construction Technology, volume 3, ELBS, England, 1997 and Onwards.**
3. Barry R, **Construction Technology, volume 2, EWP, New Delhi, 1999 and Onwards.**
4. Ching Francis D.K., **Building Construction Illustrated, John Wiley & Sons, Inc, Hoboken, New Jersey**

Course delivery methods

1. Lectures
2. Case Study
3. Site visit

Assessment methods

1. Case study report assessment
2. Construction 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**
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-I (WATER SUPPLY AND SANITATION)

Course Code	18TEC 3.2N	Credits	3
Course type	BS & AE	CIE Marks	50 marks
Hours/week: L-T-P	3 Hrs. (Lecture) per Week	SEE Marks	50 marks
Total Hours:	Lecture =42 Hrs; Total = 42 Hrs	SEE Duration	3 Hours for 100 marks

Course learning objectives

1. To introduce students to the concepts of basic building services like water supply and sanitation.
2. To evolve the understanding of students to the integration of these services with Architectural design.

Unit – I: Water Supply

06 Hours

- a) Introduction: Introduction to water supply system.
- b) Sources of Water: Surface sources like rivers, streams, lakes and impounded reservoirs. Underground sources like springs, infiltration galleries, tube wells and driven wells.
- c) Quantity of Water: Per capita demand, types of demand – domestic, institutional and commercial, industrial, public use, firefighting and compensate losses. Factors affecting water demand.
- d) Quality of Water: Types of impurities, effects and standard permissible limits of all types of impurities.

Unit – II: Sanitation

06 Hours

- a) Introduction: Importance and purpose of sanitation, principles of sanitation. History of sanitation.
- b) Terminologies in sanitation: Sewerage, sewer, sullage, sewage, refuse, invert, soil pipe, waste pipe, vent pipe, anti siphonage pipe, dry weather flow and wet weather flow. Collection and disposal of refuse- Conservancy system and water carriage system. Conveyance of sewage- gully trap, inspection chamber, intercepting trap, grease traps, oil traps, backflow preventer, manholes and its types.
- c) Sanitary Fixtures and Fittings: Soil appliances like water closets, bidet, urinals, flushing cistern and flush valve. Waste appliances like wash basin, sink, dishwasher and washing machine.

Self learning topics: Study and design of toilet layouts for private use, public use and for the physically challenged.

Unit – III: Sewage Collection and Storm Water Management**08 Hours**

- a) Systems of Drainage: Separate, combined and partially combined systems.
- b) Sewage collection: Objective, space requirements and design of Septic tank and Soak pit for a typical dwelling.
- c) Decentralised Wastewater Treatment: Properties, performance and scope.
- d) Stormwater Management: Management of storm water drainage for a small house- draining of roof top water. Introduction to Rain water harvesting.

Self learning topics: Application of Rainwater Harvesting - Study of Rainwater Harvesting Project for any Site- residential, commercial or institutional building.

Unit – IV: Plumbing- Water Supply**10 Hours**

- a) Water Supply Plumbing: Typical service connection to a premises- mains, ferrule, service pipe and water meter; sump and overhead water tanks. Flow control valves –Stop cock, air and pressure relief valves and reflux valve. Pipe fixtures – tees, bends, elbows, unions, reducers, increasers and pipe supports. Bath and water fixtures – Taps, mixers, health faucets and showers.
- b) Hot water system: Geysers and systems of hot water supply.
- c) Introduction to alternative technology for hot water generation.

Self learning topics: Study of automated fixtures used in the toilets and study of Solar Hot Water Generation for a small residence.

Unit – V: Plumbing- Sanitation**12 Hours**

- a) Sanitary Plumbing: Floor traps, requirement and types of traps- P, Q, S-traps, Floor traps and bottle traps. Systems of Sanitary plumbing- Single stack, one pipe partially ventilated and two pipe system. Cross venting and fixture venting.
- b) Study of Plumbing for a two bedroom house: Layout of water supply and sanitation plumbing for a small residence, including storm water drainage showing down take pipes, location of sump and OHT (Floor Plan, terrace floor plan and Section). Layout of a typical toilet block showing complete details of fittings and plumbing required for water supply and drainage. Calculation of the capacities of sump and OHT.

Reference Books:

1. **Rangwala S.C., Water Supply and Sanitary Engineering, Charotar Publishing House, Anand 388 601, 1983 and onwards.**
2. **Birdie S. G., Water Supply and Sanitary Engineering, Dhanpat Rai and Sons, New Delhi, 1987 and onwards.**
3. **National Building Code 2005, 2007 and onwards.**
4. **Relevant IS Codes of India,**
 - i. **Uniform Plumbing Code India 2012, 2012 onwards**
 - ii. **Special IS Code: SP- 35 – 1996.**

Course delivery methods

1. Lectures
2. Technical Videos

Assessment methods

1. Assignments
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
➤ 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.**

STRUCTURES – III

Course Code	18TEC3.3N	Credits	3
Course type	BS & AE	CIE Marks	50 marks
Hours/week: L-T-P	3Hrs.(Lectures) per Week	SEE Marks	50 marks
Total Hours:	Lecture = 42 Hrs; Total= 42 Hrs	SEE Duration	3 Hours for 100 marks

Course learning objectives

To give an introduction to the basic Principles and methods governing the structural behaviour of indeterminate structures.

Unit-I: Introduction to Statically Indeterminate Structures. 06 Hours

- a) Difference between Determinate and Indeterminate structures.
- b) Analysis of propped cantilever by Moment area method.
- c) Introduction to different methods used in analysis of indeterminate structures

Unit-II: Fixed Beams 09 Hours

- a) Introduction
- b) Advantages and disadvantages of fixed beams.
- c) Analysis of Fixed beams by Moment area method.

Unit-III: Continuous Beams (Clapeyron's theorem) 09 Hours

- a) Introduction
- b) Introduction to Clapeyron's three moment theorem.
- c) Analysis of continuous beams by Clapeyron's three moment theorem (maximum three spans).

Unit-IV: Continuous Beams (Moment Distribution Method) 09 Hours

- a) Introduction to Moment distribution method.
- b) Analysis of continuous beams by Moment distribution method (maximum three spans).

Unit-V: Portal Frames (Moment Distribution Method) 09 Hours

- a) Introduction.
- b) Analysis of portal frame by Moment distribution method (single bay, single storey with non-sway).

Self-Learning Topic: Settlement of support in continuous beam by Clapeyron's method

Text Books:

1.S SBhavikatti,StructuralAnalysis,Vikas Publications, 2nd edition 2005.

2.Vazirani and Ratwani, Theory of Structures, Khanna Publication, New Delhi.

3.Ramamrutham, Theory of Structures, DhanpatRai Publishing Company, New Delhi, 9th edition.

Course delivery methods

1. Lectures

Assessment methods

1. Assignments
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.**

COMPUTER APPLICATION -I

Course Code	18TEC3.4N	Credits	2
Course type	SEC	CIE Marks	50 Marks
Hours/week: L-T-P	3Hrs. (1 Lecture +2 Practical) per Week	SEE Marks	50 Marks
Total Hours:	Lectures =14 Hrs, Practical=28 Hrs Total =42 Hrs	SEE Duration	Viva

Course learning objectives

1. To develop and train students to use computers and digital media as a tool to explore, develop, evaluate and present architectural ideas.
2. To equip the student with a range of digital tools and techniques in 2D drafting and 3D modelling.

Unit – I: 2D Drafting

27 Hours

- a) Introduction to AutoCAD (or relevant 2D drafting software): 2D commands, viewports, dimensions, annotations. Time problem: classroom exercises such as measured drawing of windows, doors, staircases etc.
- b) Introduction to AutoCAD (or relevant 2D drafting software): Understanding layers, paper space vs. model space, line weights, print set up for measured drawing.
- c) 2D Drafting: Presentation of time problem: plan, sections, elevations of a single storied building (or II semester architectural design studio project).

Unit-II: Basic 3D Mod

15 Hours

- a) Introduction to Basic 3D modeling (Trimble SketchUp or relevant 3D modeling software): Introduction to software interface, basic tools for 3D modeling, composition with basic shapes, viewport manipulation and application of materials.
- b) 3D modeling: Demonstration of 3D modeling commands required to convert 2D project of a single storied building (or II semester architectural design studio project).

Reference Books:

1. Omura George and Graham Rick, **Mastering AutoCAD 2012 and AutoCAD LT 2012**, Sybex; 1 edition, 2011

E-Resources:

1. Online documentation, tutorials, blogs at www.lynda.com/AutoCAD-training-tutorials

Online documentation, tutorials, blogs and videos:
<http://www.sketchup.com/learn/videos>

Course delivery methods

1. Lectures
2. Practical teaching

Assessment methods

1. Presentation report assessment
2. CAD 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**
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.**

HISTORY OF ARCHITECTURE –III

Course Code	18HUM3.1N	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= 42 Hrs	SEE Duration	3 Hours for 100 marks

Course learning objectives

1. To present students an overview of the evolution of Hindu Architecture in India in its various stylistic modes, characterized by technology, ornamentation and planning practices.
2. To develop the appropriate skills of reading, writing and understanding of the spatial experience of buildings in order to appreciate the complexity of the influences bearing on Architecture as reflected in the major historical periods.

Unit-I : Evolution of Temples and Indo Aryan Period –Orissa

09 Hours

- a) Rock-cut Architecture and beginning of structural Temples: Indo Aryan - Early temples at Udayagiri, Tigawa, Sanchi, Deogarh and Bhitargaon.
- b) Evolution of Hindu Temple: Dravidian Experiments at Aihole- Durga temple and Ladkhan Temple, Badami and Pattadakal.
- c) Introduction and synoptic study of Parts of Orissan temples.
- d) Introduction, Critical appreciation of works and synoptic study of Architectural characteristic features. Study of Design principles. E.g.: Lingaraja temple, Bhubaneshwar and Sun temple, Konark.

Unit-II : Gujarat and Khajuraho

09 Hours

Introduction, Critical appreciation of works and synoptic study of Architectural characteristic features. Study of Design principles -

- a) Gujarat: E.g. Sun Temple, Modhera.
- b) Khajuraho: E.g. Kandariya Mahadeva temple, Khajuraho.

Self-Learning Topics:Types of Shikaras of Indo Aryan style temples (Three modes of development: Latina, Shekhari and Bhumija).

Unit-III : Dravidian Period - Pallava and Chola**08 Hours**

Introduction, Critical appreciation of works and synoptic study of Architectural characteristic features. Study of Design principles-

- a) Pallava: E.g. Rathas and Shore temple at Mahabalipuram, Kailasanatha and Vaikuntha Perumal temple at Kanchipuram.
- b) Chola: E.g. Brihadeshwara temple at Thanjavur and GangaikondaCholapuram.

Unit-IV : Pandya and Hoysala**08 Hours**

- a) Pandya: Study of Architectural characteristic features of Pandyan Gopurams.
- b) Hoysala: Introduction, Critical appreciation of works and synoptic study of Architectural characteristic features. Study of Design principles.E.g. Chennakesava temple at Belur, Hoysaleswara temple at Halebid, Kesava temple at Somnathpur.

Self-Learning Topics:

Types of Hoysala temple plans: Ek-kutachala, Dwikutachala and Trikutachala with their typical parts.

Unit-V :Vijayanagar and Nayakas**08 Hours**

Introduction, Critical appreciation of works and synoptic study of Architectural characteristic features.Study of Design principles.

- a) Vijayanagar: E.g.Vithala temple and Hazara Rama temple, Hampi.
- b) Madurai:E.g.: Meenakshi temple, Madurai and Temple at Srirangam.

Reference Books:

1. **Brown Percy, Indian Architecture- Buddhist and Hindu Period, D. B. Taraporevala Sons and Co., Bombay, 1983 and onwards.**
2. **Grover Satish, Architecture of India- Buddhist and Hindu, Vikas Publishing House Pvt. Ltd., New Delhi, 1980 and onwards.**
3. **Tomory Edith, History of Fine Arts in India and the West, Orient Longman Ltd.,New Delhi, 1982 and onwards.**
4. **Stierlin Henry, Hindu India, Benedikt Taschen Verlag GmbH, Hohenzollernring 53, D-50672 Koln, 1998 and onwards**

Course delivery methods

1. Lectures
2. Documentary Videos

Assessment methods

1. Assignments
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
<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.**

VACATION ASSIGNMENT- I

Course Code	18HUM3.2N	Credits	CA
Course type	PC	CIE Marks	100 marks
Hours/week: L-T-P	-	SEE Marks	-
Total Hours:	-	SEE Duration	-

Course learning objectives

To expose students to Historical, Vernacular and Contemporary architecture.

Detailed Syllabus:

Vacation Assignment/ Study tour is to be undertaken after the end of II semester exam and before the commencement of III semester classes. This assignment could be a measured drawing and documentation of a noted building or a study tour for visiting places of architectural interest. The choice of the building to be documented and the places to be visited is left to the department. The assignment may be given as group work (4 to 6 students per group). The students have to submit a report on the measured drawing or the study tour within 15 days from the beginning of the III Semester. The reports are to be assessed by the department for progressive marks.

Note: Documentation on buildings of visited historic places. Understanding the climate, culture, context, material resources available, design strategies and the overall architectural character evolved.

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 Semester End Examination (SEE).
➤ **Minimum marks required to pass CIE : 50 out of 100.**

ARCHITECTURAL DESIGN - III

Course Code	18DES4.1N	Credits	10
Course type	PC	CIE Marks	50 marks
Hours/week: L-T-P	7 Hrs. (1 Lecture + 6 Studios) per Week	SEE Marks	50 marks
Total Hours:	Lecture= 14 Hrs; Studio= 84 Hrs Total=98 Hrs	SEE Duration	Viva

Course learning objectives

1. To understand Housing as a process rather than a product.
2. To understand the characteristics and design elements of organic and planned communities.
3. To understand the needs of contemporary living, different levels of privacy, multifunctional community spaces, efficiency of open spaces and extended living areas.

Unit-I: Introduction to Housing

04 Hours

The Studio shall explore the concept of Housing, Elements of housing, difference between organic and planned housing types. The understanding of housing shall be illustrated through detailed study of site and case study.

Unit-II: Literature Case Study

04 Hours

In this phase students shall make a detailed study of a housing projects where they understand and explore the economic and socio cultural values of a community, various design elements like organizational patterns, hierarchy of open spaces, relations between built and unbuilt, extended living areas, multifunctional community spaces and amenities.

Unit-III: Design Project

90 Hours

In this phase students through design project shall demonstrate understanding of the above housing design principles. The project shall aim to address issues pertaining to contemporary housing or occupational housing. Projects like Midrise Apartments for IT, Industrial employees, Government Servants, Teaching faculty, Textile weavers, etc. can be attempted. The context for the project can be urban, suburban or rural.

Design Methodology:

The entire design development process comprises of various processes involved in understanding patterns and theory of housing through various stages of reading and understanding design, context through various stages such as case study, site selection and analysis, data collection, concept, conceptual design sketches, design drawings and final design submission.

Reference Books:

1. Correa Charles, **Housing and Urbanization**, UDRI, Mumbai, Edition 2002 and Onwards
2. Rapoport Amos, **House Form and Culture**, Prentice Hall, Edition 1969 and Onwards
3. Doshi B.V, **Aranya Low Cost Housing**. Edition 1990 and Onwards
4. **Residential open spaces: a behavioural analysis** , VastuShilpa Foundation for Studies and Research in Environmental Design 1988.

Course delivery methods

- 1 Lectures
- 2 Case study/site study
- 3 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**
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 – IV

Course Code	18TEC4.1N	Credits	5
Course type	BS & AE	CIE Marks	50 marks
Hours/week: L-T-P	5 Hrs. (1 Lecture + 2 Studios + 2 Studio Exercises) per Week	SEE Marks	50 marks
Total Hours:	Lecture = 14 Hrs; Studio = 28 Hrs; Studio Exercise 28 Hrs; Total = 70Hrs	SEE Duration	Viva

Course learning objectives

1. Introduction to Flooring and Paving,
2. Introduction to Special types of Doors,
3. Introduction to Structural Glazing and Cladding
4. Introduction to Aluminium and UPVC windows.
5. To study manufacturing of Glass and Plastics; its types with applications in Building Industry.

Unit – I: Flooring and Paving 12 Hours

- a) Mud and Stone Flooring.
- b) Marble, Granite, Tandoor and Kota Flooring.
- c) Mosaic, Terrazzo, Ceramic and Vitrified Tiles.
- d) Natural Wood, Pre-Engineered Wood Flooring.
- e) Special flooring e.g. Epoxy, Tremix and Vinyl Flooring.
- f) Paving - Cast-in-situ Concrete, Concrete tiles, Interlocking blocks, Clay tiles, Brick and stone

Unit – II: Aluminium and UPVC Windows 20 Hours

- a) Introduction
- b) Types of Aluminium windows
- c) Types of UPVC Windows

Unit – III: Special Types of Doors 12 Hours

- a) Frameless Glass Door, Sliding and Folding Door.
- b) PVC and FRP Doors.
- c) Revolving Doors
- d) Remote Control Systems of Doors.
- e) Collapsible gate and Rolling shutters.

Unit-IV: Structural Glazing and Cladding 12 Hours

- a) Structural Glazing and Fitting Devices.
- b) Introduction to Cladding.
- c) Glass Cladding.
- d) Precast Concrete Cladding Panels.
- e) Aluminium Composite Panel Cladding

Unit – V: Glass and Plastics as building materials

14 Hours

- a) Glass Fabrication techniques.
- b) Types of glasses and their appropriate use as a building material.
- c) Introduction to plastics, Properties and Architectural uses of plastics.
- d) Thermoplastics and Thermosetting Plastics.
- e) Structural Plastics.
- f) Decorative plastic coatings.

Self learning topics: To Collect samples, rates and manufacturers information of Polycarbonate, Acrylic, PVC, Polymer films or Fibre- reinforced plastics and glass.

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

Reference Books:	
1.	Mackey W B, Building Construction, Volume 3, Orient Longman, 1985 onwards.
2.	Chudley R, Construction Technology, Volume 3, ELBS, England, 1997 onwards.
3.	Barry R, Construction Technology, Volume2, 4, EWP, New Delhi, 1999 onwards.
4.	Rangwala S C, Building Materials, Charotar Publishing House (Pvt Ltd), New Delhi 2015 onwards
5.	Ching Francis D.K.,Building Construction Illustrated, John Wiley & Sons, Inc, Hoboken, New Jersey

Course delivery methods

- 1. Lectures**
- 2. Case Study**
- 3. Site visit**

Assessment methods

- 1. Case study report assessment**
- 2. Construction Viva**

Scheme of Continuous Internal Evaluation (CIE):

Component s	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 – II (ELECTRICAL SERVICES AND ILLUMINATION)

Course Code	18TEC4.2N	Credits	3
Course type	BS & AE	CIE Marks	50 marks
Hours/week: L-T-P	3Hrs. (Lectures) per week	SEE Marks	50 marks
Total Hours:	Lecture = 42 Hrs; Total = 42 Hrs	SEE Duration	3 Hours for 100 marks

Course learning objectives

To introduce students to Electrical services and Illumination and to sensitize them with respect to their application in Architectural Design.

Unit-I: Introduction to Electrical Services **08 Hours**

- Introduction to commonly used terminology – Power, Voltage, Current, Connected Load, Maximum Demand, Load Factors, symbols as per IS standards etc.
- Supply and Distribution of Electricity to Buildings: Power Requirements, Voltage levels, Substation, Ring Main Units, Metering panels, HT Breakers, Transformers, Generators, LT Panels, Cables – HT and LT, Standards like National Building Code, National Electric Code

Unit- II: Protective Devices, Earthing and Lightning Protection System, Internal Supply and Distribution **10 Hours**

- Fuses, Miniature Circuit Breakers, Earth Leakage Circuit Breakers, Moulded Case Circuit Breakers
- Earthing: Introduction, Types - Pipe Earthing and Plate Earthing and lightning arresters for High rise buildings.
- Residential Building Electrical Distribution System: Overhead and underground distribution system, brief description of various cabling types, conduit, PVC casing and capping wiring systems

Unit-III: Electrical Layout Design **06 Hours**

- Electrical layout of a three bedroom residential unit and calculation of the load.
 - Electrical layout of commercial outlets like restaurants of around 150 sqm
- Self learning topics:** Documentation of electrical layout of Showrooms / Shops/Clinic of around 150 sqm and calculation of the load.

Unit-IV: Illumination **12 Hours**

- Introduction to Illumination, Quality and Quantity of Light
- Type of Lighting Systems: Direct, Indirect, Semi Direct and Semi Indirect.
- Methods of lighting: Ambient, Task and Accent lighting, Street Lighting, Façade Lighting, Landscape lighting, etc.
- Type of Light sources: Fluorescent, Incandescent, HID's, CFL, LED Halogen and neon lamps.
- Types of Luminaires: Pendant light, Uplighter, Recessed ceiling light, wall washers etc.
- Design considerations for lighting of museum, auditorium, garden and library

Self- Learning Topics: Market Survey and report presentation of latest technology switches and luminaries.

Unit-V: Renewable Energy Systems **06 Hours**

- a) Renewable Energy Systems: Non-conventional systems like Solar, Wind, Biomass, Thermal Wave plants and its applications.
- b) Application of renewable energy in design of buildings through appropriate case studies like CII Soharabji Godrej Green Business Centre, Hyderabad, Auroville Solar Kitchen, The Energy Research Institute Bangalore, Indira Paryavaran Bhavan, Ministry of Environment and Forest, PEDDA Office complex, Chandigarh.

Self-Learning Topics: Study of projects involving one or more of the renewable energy systems like Solar/ Wind.

Reference Books:	
1.	Cotton H.: Electrical Technology, CBS Publishers, 1984 and onwards
2.	Uppal S. L.: Electrical Wiring, Estimating and Costing, Khanna Publishers, 2013
3.	Anwari :Basic Electrical Engineering , 1st Edition and onwards
4.	National electric Code, Indian Electricity Rules 1956, Energy Conservation and Building Code.1st Edition and onwards
5.	Halpeth M.K. Light Right Teri Press 2005 and onwards

Course delivery methods

1. Lectures
2. Site visits

Assessment methods

1. Internal Test
2. Report

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
➤ 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 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 –IV

Course Code	18TEC4.3N	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	Lecture = 42 Hrs; Total = 42 Hrs	SEE Duration	3 Hours for 100 marks

Course learning objective:

Introduction to Design of Reinforced Concrete Structures.

Unit-I: Concrete

05 Hours

Composition, water cement ratio, strength, durability, workability requirements. Advantages of RCC over other conventional structural practices, Design Philosophies (Limit State, Working Stress and Ultimate Load Method), Necessity and Philosophy of limit state design, stress block parameters, characteristic and design loads and strengths, load consideration as per IS875.

Unit-II: Analysis and design of beam by Limit State Method

10 Hours

Analysis and design of singly and doubly reinforced beams for flexure and shear.

Unit-III: Design of slabs

10 Hours

Introduction to slabs, different types of slabs, design of slabs, one way and two way slabs (simply supported and restrained).

Unit-IV: Design of columns and footings

08 Hours

Introduction to columns and footings, design of column (axial and uniaxial) -SP-16, design of footings (axially loaded square).

Unit-V: Design of staircase

09 Hours

Introduction to staircase, Types of staircases, Design of staircase (dog legged).

Self Learning Topics: Influence of concrete on Architecture by famous Architects like Eero Saarinen (Yale University's Dormitory building), Zaha Hadid (New Haven Connecticut building in Belgrade) and Structural Designer, Mahendra Raj (Vidhan Bhavan, Bhopal and NCDC office building, New Delhi).

Note-

1. The teacher is expected to expose the students to demonstration models, tests and experiments with materials and structural systems related to the above topics.
2. The teacher is also expected to expound the structural concepts introduced in non-mathematical terms with examples and application in architectural design.

Text Books:

1. **Jain and Jaikrishna, Reinforced Cement Concrete, Nem Chand & Bros., New Delhi**
2. **Ramamrutham, Reinforced Cement Concrete, Dhanpat Rai & Sons, New Delhi, Third Edition and onwards.**
3. **Krishna Raju N. and Pranesh R.N., Reinforced Cement Concrete, K K Gupta for New Age International Pvt. LTD., New Delhi, Third Edition and onwards.**
4. **Gauld Bryan G. B, Structures for Architect, Pearson education limited, London, Third Edition and onwards.**
5. **Chings Francis.D.K, Building Structure Illustrated, John Wiley and sons, N J, USA.**

Course delivery methods

1. **Lectures**

Assessment methods

1. **Assignments**
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.**

COMPUTER APPLICATION - II

Course Code	18TEC4.4N	Credits	2
Course type	SEC	CIE Marks	50 Marks
Hours/week: L-T-P	3Hrs. (1 Lecture +2 Practical) per Week	SEE Marks	50Marks
Total Hours:	Lectures =14 Hrs ;Practical=28 Hrs ;Total =42 Hrs	SEE Duration	Viva

Course learning objectives

To develop awareness and familiarity with Advanced Computer applications in Architecture and to equip students with skills required in using digital tools to conceive, develop and present Architectural ideas.

Unit – I: Advanced 3D Modeling and Visualization Techniques **15 Hours**

- a) Introduction to advanced SketchUp extensions and tools to aid 3D modeling, adding details to models in 3D space
- b) Study of Advanced Rendering and Visualization Techniques of Design Studio projects using softwares .

Unit – II: Presentation Techniques **27 Hours**

- a) Introduction to Graphics Editing Tools using softwares. Concepts of image editing, image scanning, effects, filters, etc.
- b) Presentation of II semester Architectural Design studio project- rendering of 2D drawings. Adding foreground, background elements to the 3D visualizations. Tools for Presentation of the edited 2D drawings and 3D visualizations.

Reference Books:

1. **Daniel Tal, Rendering in SketchUp: From Modeling to Presentation for Architecture, Landscape Architecture, and Interior Design, John Wiley & Sons.**
2. **Matt Donley, SketchUp to LayOut: The essential guide to creating construction documents with SketchUp Pro & LayOut, MasterSketchUp.**

E-Resources:

1. **Bark, Steve, An Introduction to Adobe Photoshop; Bookboon.com**

Course delivery methods

1. Lectures
2. Practical teaching

Assessment methods

1. Presentation report assessment
2. CAD 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**
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.**

HISTORY OF ARCHITECTURE – IV

Course Code	18HUM4.1N	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 = 42 Hrs	SEE Duration	3 Hours for 100 marks

Course learning objectives:

1. To provide an introduction to the culture and architecture of Islamic and Colonial periods in India.
2. To develop a critical appreciation towards the evolution of the various stylistic modes, characterized by technology, ornamentation and planning practices.

Unit - I Imperial Style (12th to 16th Century AD)

10 Hours

- a) Early phase: Advent of Islam into India. Evolution of the Islamic Architecture – Salient features of Mosque and Tomb.
- b) Critical appreciation of works and synoptic study of architectural characteristic features of the contribution of various dynasties under the Imperial style (Slave, Khilji, Tughlaq, Sayyid and Lodi)
Slave and Khilji dynasties – E.g. Quwwat-ul-Islam Mosque, Qutub-Minar, Enlargement of Quwwat-ul-Islam Mosque by Iltutmish, Tomb of Iltutmish, Enlargement of Quwwat-ul-Islam Mosque by Ala-ud-din Khilji and Alai Darwaza.
- c) Tughlaq, Sayyid and Lodi dynasties -E.g. Tomb of Ghiyas-ud-din Tughlaq, Khirki Masjid, Tomb of Firoz Shah Tughlaq, Shish Gumbad, Tomb of Mubarak Shah Sayyid and Tomb of Sikandar Lodi.

Unit - II Provincial style (Bengal, Jaunpur and Bijapur)

08 Hours

Critical appreciation of works and synoptic study of architectural characteristic features of the provincial style.

- a) Bengal (1203 to 1573 AD) and Jaunpur (1376 to 1479AD) Provinces – E.g. Adina Masjid, Pandua and Eklakhi Tomb, Pandua; Atala Masjid, Jaunpur and Jami Masjid, Jaunpur.
- b) Bijapur (1490 to 1656AD) Provinces - Gol Gumbaz, Ibrahim Rauza and Jami Masjid, Bijapur

Unit - III Provincial style (Ahmedabad and Malwa) and Mughal Architecture

08 Hours

Critical appreciation of works and synoptic study of architectural characteristics features of Provincial and Mughal style.

- a) Ahmedabad (1411 to 1455 AD) and Malwa Provinces (1405 to 1569 AD) -E.g. Jami Masjid, Ahmedabad and Teen Darwaza, Ahmedabad; E.g. Jami Masjid, Mandu, Jahaz Mahal, Mandu, Hindola Mahal, Mandu.
- b) Mughal Architecture (1526 to 1605 AD) – E.g. Humayun's Tomb, Delhi

Self learning topics: Study of the architectural characteristics of Jami Masjid, Champaner

Unit - IV Mughal Architecture (1605 to 1707 Century AD)

08 Hours

- a) Fatehpur Sikri (Layout and Diwan-i-khas, Jami Masjid, Tomb of Salim Chisti and Buland Darwaza)
- b) Akbar's tomb, Sikandra.
- c) Taj Mahal, Agra - Layout of the Tomb and the concept of Charbagh.

Unit - V Colonial Architecture

08 Hours

- a) Introduction to Colonial Architecture in India. Colonial architecture in Calcutta- Victoria Memorial, Calcutta. Colonial architecture in Bombay- Victoria Terminus, Bombay.
- b) Design of New Capital of Delhi- Contributions of Sir Edward Lutyens, Herbert Baker- Layout of New Delhi, Rashtrapati Bhavan and Parliament House.

Reference Books:

1. **Tadgell Christopher, The History of Architecture in India from the Dawn of civilization to the end of the Raj; Phaidon Press, London, U.K. Ltd., 2002 onwards.**
2. **Brown Percy, Indian Architecture (Islamic Period) Vol II; DB Taraporevala and Sons Co.Pvt. Ltd., Bombay, 1983 and subsequent publications.**
3. **Grover Satish, Islamic Architecture in India, Galgotia Publications, India, 1996 onwards.**
4. **Stierlin Henri, Stierlin Anne, Islamic Art and Architecture, Thames & Hudson, 2002 onwards.**
5. **Ferguson, J.A., Encyclopedia of World Architecture (Islamic Architecture), Aryan books, 1998 onwards.**
6. **Fletcher Banister, A History of Architecture, C.B.S.Publishers, 1996 onwards.**
7. **Tillotson, G.H.R. , The Tradition of Indian Architecture: Continuity, Change and the Politics of Style since 1850, Oxford University Press, Delhi, 1989 onwards.**
8. **Tomory Edith, A History Of Fine Arts In India And The West, Orient Blackswan Pvt Ltd.-(New Delhi), 2009 onwards.**
9. **Asher Catherine B., Architecture of Mughal India, Cambridge, 1995 onwards.**

Course delivery methods

1. Lectures
2. Documentary Videos

Assessment methods

1. Assignments
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
➤ 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.**

HUMANITIES

Course Code	18HUM 4.2N	Credits	2
Course type	PC	CIE Marks	100 marks
Hours/week: L-T-P	3Hrs (1 Lectures + 2 Studios) per Week	SEE Marks	-
Total Hour	Lecture = 14 Hrs; Studio =28 Hrs Total = 42 Hrs	SEE Duration	-

Course learning objectives

1. To provide an insight into the Social, Cultural and Economic influences on design of human settlements.
2. To introduce students to basic concepts of Sociology and Economics.

Unit I: Types of Communities and Urbanization

08 Hours

- a) Communities: Origin, growth and nature of settlements and communities, their characteristics and spatial organizations.
- b) Rural Communities: Characteristics and Form, Rural society, village community, development of traditional patterns and trends of change. The concept of social stratification. Spatial aspects- Physical and Visual.
- c) Urbanization: Characteristics and Form, socio-cultural impacts and effects on rural areas. Impact of urbanization on health, housing, transportation. Migration and its types.
- d) Building Cost: Cost and cost indices. Life cycle costs, total cost of construction, sources of finances for buildings, time value of money.

Unit II: Elements of Society

06 Hours

- a) Introduction to Sociology: Definition and theories and their relevance to social set-up, nature, scope and utility of sociology, relevance to architecture. Sociology and its branches. Relevance of related subjects like Psychology, Anthropology, History with relevance to built environment.
- b) Concepts of social structure and social institutions, culture and civilization. Relationship between social structure and spatial structure. Elements of Society: Types of families and their impact on space -Single, nuclear and joint families.

Unit III Settlement Study

12 hours

- a) Comprehensive study of a rural settlement to create a holistic understanding of the socio – cultural, geographic, and economic aspects that shape the built environment and to give exposure to the methodology of conducting various surveys covering physical, visual characteristics and socio economic aspects.
- b) Settlement study to understand factors of social change, social changes in a region, current pattern of housing, Social differentiation, Social mobility and Social problems, factors determining the Cultural identity of a place.

Unit IV Documentation of Settlement Study

16 hours

- a) Representation of socio-cultural layers, geological layers, occupational patterns and Climatic layers.

- b) Graphical Presentation of Observations and findings with respect to different layers of the Settlement.

Reference Books:

- 1 **Rudofsky Bernard, Architecture without Architects- A Short Introduction to Non- Pedigreed Architecture, University of New Mexico, New Mexico, 2010 onwards.**
- 2 **Alexander Christopher, The Timeless Way of Building, Oxford University Press, Oxford,1979 onwards.**
- 3 **Rapoport Amos, House Form and Culture, Pearson Education Ltd., Harlow,1969 onwards.**
- 4 **Oliver Paul, Encyclopedia of Vernacular Architecture of the World, Routledge, London, 1997 onwards.**
- 5 **Jones Paul, The Sociology of Architecture: Constructing Identities,**
- 6 **Liverpool University Press,Liverpool, 2008 onwards.**
- 7 **Newman David M., Sociology: Exploring the Architecture of Everyday Life, SAGE Publications Ltd., London, 2009 onwards.**
- 8 **Smelser Neil J., The Sociology of Economic Life, Quid Pro Books, Louisiana, 2009 onwards.**
- 9 **Warner Hirsch Z., Urban Economics, Simon & Schuster Custom, New York.**
- 10 **Pannerselvam R., Engineering Economics, Prentice Hall India, New Delhi, 2012 onwards**

Course delivery methods

1. Lectures
2. Site study
3. Documentation

Assessment methods

1. Portfolio

Scheme of Continuous Internal Evaluation (CIE)

Components	Portfolio Marking	Average of assignments (Two) / activity	Quiz/ Seminar/ Project	Class Participation	Total Marks
Maximum Marks: 100	80	-	-	20	100
<p>➤ Note: This subject does not have Semester End Examination (SEE).</p> <p>➤ Minimum marks required to pass CIE: 50 out of 100</p>					