

K.U.K., B. ARCHITECTURE - Xth SEM
(B. Arch. Thesis Project based on Research Skills)
(AR-502)

Project Exam. Marks	- 300
Internal Assessment	- 300
Duration of Exam.	- - hrs
Contact Hrs / week	- 18

Intent:

- To prepare the student to independently handle and present all aspects of an architectural design: from its evolution to final solution in totality;
- To understand the importance of the evolutionary stages of a design process and various techniques required for a successful presentation of an architectural design;
- To develop in the students the ability to handle specific aspects of design, relevant to the topic.

Content:

The Subject of the thesis project will be selected by the students and approved by the department. The project selected may be either a live one or a research-oriented one or one pertaining to urban design or of a conceptual nature relating to building or allied programmes, so that the student gets experience in tackling projects similar to what he is likely to face in the chosen stream of his professional career. The project and its programming shall be worked out by the student himself under the guidance of the thesis advisor(s).

The project work shall include an intensive study of relevant literature, case studies, climatology and analysis of problems concerned with the development of functional organization of space and structure, based on correlation and interpretation of the social, economic and physical data. Solution to the identified design problems must be worked out with the integrated approach of the architect, planner, engineer and other environmental designers, both in the preparation of the report and drawings.

The thesis project is carried out and evaluated under two sections - the course work and the final examination.

The Thesis project will comprise of the following:

1. An illustrated report, which will include the validity and scope of the chosen project, methodology, prototype studies, site analysis, client's and architect's briefs, delineation of programme and design criteria.
2. A fully worked-out design proposal including consideration of site planning structures, services and any other aspects/specific to the project.

The procedure to be adopted for the thesis project and the relevant details of the course work and final examination are given below.

1. Approval of project:

- The intent of the thesis project as well as the criteria for selection of the project will be introduced to the students during the Seminar preparation of the 8th semester.
- Along with the submission of the 9th Semester Training Report, students will submit brief write-ups on three projects out of which one will be approved.

2. Rough Report comprising all analytical aspects of the project including the synopsis, library studies, prototype studies, site analysis, delineation of building program, etc.

3. Evolution of Design to be worked out in a minimum of four stages.

4. Draft of Final Report including Evolution of Design

5. Final Report, drawings and model/s to be evaluated through a University External Examiner.

Stage of Work		Time allocated	Max. Marks
1.	Sessional Work		
(a)	<u>Rough Report -</u>		100
	(i) Introduction & topic finalization	1 week	
	(ii) Synopsis	1 week	
	(iii) Preliminary Library studies	1 week	
	(iv) Site analysis	1 week	
	(v) Case studies	2 weeks	

(b)	<u>Evolution of Design</u>		200
	(i) Design Criteria and Concept	1 week	
	(ii) Design Proposal Stage-1	2 weeks	
	(iii) Design Proposal Stage-2 (incorporating structure & services)	2 weeks	
	(iv) Pre-final Design To be evaluated through a University External Examiner	2 weeks	
(c)	<u>Draft - Final report</u> (Incorporating improvements suggested in Rough Report, Design Criteria and explanatory sketches of Evolution of Design).	1 week	
2.	Final Submission	2 weeks	300

NOTE:

- Students will submit two copies of the Final Report (original and one photocopy) on a standard format prescribed in the thesis programme issued every year by the Thesis Coordinator.
- Students are required to submit the Final Report, all final drawings and model/s in the standard format prescribed in the Thesis Program.

- Submission will be made latest by one day before the commencement of end examinations of University.
- Final Viva shall be done after the exams on a date decided by University.

K.U.K., B. ARCHITECTURE - Xth SEM
Construction Management
(AR-504)

Practical Exam	- 50
Internal Assessment	- 50
Duration of Exam.	- 3 hrs
Contact Hrs / week	- 3

Intent:

The objective of this course is to enable the students to learn network techniques, construction planning practices, construction equipments & methods along with quality control in construction.

Content:

UNIT-I

Network Techniques

Introduction to network techniques; use of computer aided CPM and PERT for planning, Scheduling and control of construction works; Computerized network scheduling and bar charts; Errors in networks; Types of nodes and node numbering systems.

UNIT-II

Construction Planning

Planning of Construction and site facilities using networks; Preparation of construction schedules for jobs, materials, equipment, labour and budgets using CPM.

UNIT-III

Construction Equipments and Methods

Equipments for earth construction and application; Concrete Construction; Aggregate production concrete: production, handling and placement; Mixers, vibrations and temperature control.

UNIT-IV

Control on Construction

Construction Quality control and inspection; Significance of variability in estimation of risk; Construction cost control; Crashing of networks.

Instructions for the Examiner:

Two questions of 10 marks each are to be set from each Unit and the students are to attempt any five questions with a minimum of one from each unit.

References:

- Srivastava, U.K., Construction, Planning Management, Galgotia Publisher, New Delhi, 1999.
- Peurifoy, R.L., Construction Planning, Equipments and Methods, McGraw Hill Book Co. Inc., Tokyo, 1996

- Construction Performance Control by Networks, Ahuja, H.N., Wiley Interscience Publication, N.Y.
- Project management with CPM & PERT, Moder and Philipese, Van No Strand, Reinhold, 1970

K.U.K., B. ARCHITECTURE - Xth SEM
Professional Practice, Valuation, Arbitration
(AR-506)

Practical Exam	- 50
Internal Assessment	- 50
Duration of Exam.	- 3 hrs
Contact Hrs / week	- 4

Intent:

The Objectives of the course is to expose the students to present trends of architectural practice and valuation.

Content:

UNIT-I

Professional Practice:

- Role of CoA, Architects Act 1972, Code of professional conduct of an Architect
- Role of professional bodies like The Indian Institute of Architects (IIA).
- Scale of charges, Responsibilities of the Architect, Intellectual Property rights.

UNIT-II

Valuation:

- Introduction to Techniques of valuation, elements of valuation and factors affecting valuation.
- Role of professional bodies like Institute of Valuer's.
- Methods of valuation of land and building property, comparable cost of sale, purchase and mortgage.
- Capital gains tax, wealth tax and other tax laws.

UNIT-III

- Land Acquisition Act, Valuation for compensation on acquisition.
- Compensation under central and state legislation.
- Valuation for renewal or lease/extension of lease, standard rent, easement rights, dilapidation, insurance, estate development and advice on investment policy.

UNIT-III

Arbitration:

- Introduction to Arbitration, arbitrators, umpire and nature of arbitration.
- Appointment, conduct, powers and duties of arbitrator and umpire as amended from time to time.

- Procedure for arbitration, preparation and publication of awards and impeachment.

Instructions for the Examiner:

Two questions of 10 marks each to be set from each unit and the students are to attempt any five questions with a minimum of one from each unit.

References:

- Professional Practice and Valuation, Nanavati, R.H.
- Valuation of Real Properties.
- Professional Practice book issued by COA

K.U.K., B. ARCHITECTURE - Xth SEM **Elective - Architectural Conservation** **(AR-508)**

Internal Assessment	-	50
Practical Exam	-	50
Duration of Exam.	-	3 hrs
Contact Hrs / week	-	3

Intent:

To understand the significance of built heritage in the present-day context and to define the architect's role in the process of its conservation.

Content:

UNIT-I

Definition of 'Cultural Heritage'. Heritage as Cultural Resource. Various scales of manifestation from small works of art and historic buildings to cultural landscapes.

- Definition and purpose of Architectural Conservation. Values and Ethics.
- Philosophy of Action – Interventions such as Preservation, Restoration, Reconstruction, Adaptive Use, etc.
- History and theory of modern conservation thought.

UNIT-II

Need for a multidisciplinary approach. Role of an architect at various stages of conservation action.

- Preparatory procedures and methods for architectural conservation – Inventories; Inspections and Reports; Research, analysis and documentation; various aspects of study, e.g. historicity, stylistic features, usage, physical condition, etc.
- Causes of Decay in Materials and structure.

UNIT-III

Classification of Historic Buildings and Degrees of Protection. Legal Framework – comparison of systems in India and abroad.

- Management of Historic sites. Problems of Cultural Tourism and Presentation of historic structures.
- Role of UNESCO, ICOMOS and other international organizations.

UNIT-IV

- Role of Government body like ASI in the field of conservation
- Role of Organisation like INTACH in the field of conservation

Instructions for the Examiner:

Two questions of 10 marks each to be set from each unit and the students are to attempt any five questions with a minimum of one from each unit.

K.U.K., B. ARCHITECTURE - Xth SEM **Elective – Urban Design** **(AR-510)**

Practical Exam	- 50
Internal Assessment	- 50
Duration of Exam.	- 3 hrs
Contact Hrs / week	- 3

Intent:

To appreciate the nature and role of various facets of urban design in the making of the built environment.

Content:

UNIT-I

- Introduction to the scope of Urban Design. Its relationship with ‘architecture’ and ‘town planning’.
- Determinants of Urban Form such as landform, climate, symbolism, activity patterns, socio-culture factors, materials and techniques and other contextual references. Case examples from various periods in history and different parts of the world.
- Vocabulary of Urban Design. Urban Pattern, Grain, Texture, Density, etc.
- Concepts of Imageability. Elements of the city’s image. Paths, nodes, landmarks, edges, and districts – their characteristics, role and interrelationship.
- Designing parts of the city: Systems of communication, and utilities, visual expression, accent and contrasts, urban character, landscape features and city extension areas.

UNIT-II

- Types of Urban Spaces – streets, square, precinct, piazza, mall, etc.
- Various elements of urban space – their identification, characteristics and role in the shaping of the space.
- Changing role of urban spaces through history. Role of public places in the contemporary city.

UNIT-III

- Design principles – Scale and Enclosure
- Case studies of well known urban spaces from various periods of history to illustrate their design and performance aspects.

UNIT-IV

- Role of Legislation and controls in design of the built environment.
- Types of urban controls: FAR, Incentive Zoning, Density, Planned unit Development, Building height, Building Bulk etc. Special provisions of Town planning Acts. Analysis of urban legislation in Delhi, Mumbai, etc.
- Aesthetic Legislation – Historical Development and applications. Case example of aesthetic controls of Chandigarh – their basis, characteristic and problems of implementation and enforcement.

Instructions for the Examiner:

Two questions of 10 marks each to be set from each unit and the students are to attempt any five questions with a minimum of one from each unit.

References:

- Image of the City, Lynch K., M.I.T. Press, Cambridge
- Emerging concepts in Urban Space Design, Broadbent, G., Von Nastad Reinhol, New York, 1994
- Urban Design: The Architecture of Towns and Cities, Speriregen, Paul D, McGraw Hill Book Company, New York, 1965.
- The Urban Pattern - City Planning and Design, Arthur B. Gallion, Simon Eisner, CBS