Mapping of Course Outcomes With Program Outcomes

Subject	CO's	Po1. Architectural Knowledge	Po2. Problem solving	Po3. Design Development	Po4. Conduct Investigation	Po5. Modern Tool Usage	Po6.Ethics	Po7. Environment & Sustainability	Po.8 Social Responsibility	Po9. Individual and Teamwork	Po10. Communication	Po11. Project Management and Finance	Po12. Lifelong Learning		SPO 1	SPO 2	SPO 3
Architectural Design-I (BARC1-101)	CO 1 Knowledge of basic form and elements of Architectural Design.	3	3	2	0	0	0	0	0	1	0	0	2		2	2	1
	CO 2: Understand Anthropometry and its application in design.	3	0	0	0	0	0	0	0	0	0	0	2		2	2	1
	CO 3: Distinguish between Architectural Form and Space	3	1	2	2	0	0	0	0	0	0	0	0		1	2	1
	CO 4: Employ learnings for design spaces which are up to single room.	3	2	3	0	0	0	0	0	1	0	0	0		2	3	1
	CO 5: Employ skills to enhance indoor aesthetics.	3	2	0	0	0	0	0	0	0	2	0	0		2	3	1
	CO 6: Knowledge about local level soft and hard landscape elements.	3	2	3	2	0	0	1	0	0	0	0	0		2	3	1
	AVG	3	1.67	1.67	0.67	0	0	0.17	0	0.33	0.33	0	0.67		1.83	2.5	1
Building Construction-I (BARC1-102)	CO 1: Understanding the process of building construction from the very first step.	2	3	0	0	0	0	0	3	0	0	0	3		2	1	3
	CO 2: Understanding skills and equipment used in shaping them with the help of basic construction details.	2	3	0	0	1	0	0	0	3	0	3	3		1	2	2
	CO 3: Understanding masonary construction details	2	3	2	2	-	0	0	0	2	0	0	2		1	1	3
	CO 4: Understanding all the components of building construction.	3	2	0	0	2	0	0	0	0	0	0	3		3	1	2
	CO 5: Developing the understanding of the junction details in masonary.	2	2	0	0	0	2	1	2	0	0	2	0		1	2	3
	CO 6: Developing the knowledge of components of the brick masonary	2	2	0	0	0	0	2	0	0	0	2	0		1	1	1
	AVG	2.16	2.5	2	2	1.5	2	1.5	2.5	2.5	-	2.3	2.75		1.5	1.3	2.3
Architectural Drawing - I (BARC1-103)	CO 1: Draft 2-D and 3-D objects.	3	1	1	0	0	0	0	0	0	0	0	2		2	1	1
	CO 2: Types of construction of plain and diagonal scales	3	3	2	0	0	0	0	0	0	0	0	2		1	1	1
	CO 3: Orthographic projections of points	3	2	2	0	0	0	0	0	0	0	0	1		1	1	1
	CO 4: Isometric views of simple and complex forms.	3	2	0	0	0	0	0	0	0	0	0	2		2	1	1
	CO 5: Design development of basic forms	2	1	0	0	0	0	0	0	0	0	0	1		1	1	1
	CO 6: To develop critical and analytic thinking.	1	0	0	0	0	0	0	0	0	0	0	2		1	1	1
	AVG	2.5	1.8	1.7	0	0	0	0	0	0	0	0	1.6		1.3	1	1
History of Architecture - I (BARC1-104)	CO 1: Understanding the basic chronology of historical development in the field of Architecture and civilization.	2	0	0	0	0	0	0	0	0	1	0	1		1	1	2
	CO 2: Acquainting themselves with the key historical buildings and their characteristic features.	2	1	1	0	0	0	0	1	0	1	0	1		1	1	2
	CO 3: Developing understanding of Architecture through different historical phases.	2	1	1	0	0	0	0	1	0	1	0	1		1	1	1
	CO4: Developing understanding of Architecture in Greek Civilization	2	1	1	0	0	0	0	1	0	1	0	1		2	1	1
	CO5: Developing understanding of Architecture during Roman period	2	1	1	0	0	0	0	1	0	1	0	1		2	1	2
	CO6: Developing understanding of Dravidian Architecture through different phases	2	1	1	0	0	0	0	1	0	1	0	1		1	1	2
	AVG	2	1	1	0	0	0	0	1	0	1	0	1		1.33	1	1.67
Visual Communication - I (BARC1-105)	CO 1: The art of using the potential of pencil	3	2	0	0	0	0	0	0	0	0	0	3		3	2	1
	CO 2: Colour as a tool of graphic communication.	1	2	3	0	0	0	0	0	0	0	0	3		2	1	1
	CO 3: To learn of scale elements	0	3	2	0	0	0	0	0	0	0	0	3		2	1	1
	CO 4 : To learn various colour schemes, tints and shades.	3	2	1	0	0	0	0	0	0	0	0	3		2	1	1
	CO 5: To learn rendering of textures of different building materials in pencil.	3	0	2	0	0	0	0	0	0	0	0	1		2	1	1
	CO:6 To learn free hand still life sketching in pencil	2	0	1	0	0	0	0	0	0	0	0	0		2	1	1
	AVG	2.2	1.5	1.5	0	0	0	0	0	0	0	0	2.6		2.1	1	1
Architectural	CO 1: converse fluently, without strain with international speakers of English in an accent and lexis that is widely understood across the globe.	0	0	0	1	0	0	0	1	0	2	0	2		3	3	1
	CO 2:Architectural reports and texts on their own and shall be able to communicate in a professional manner.	2	0	0	0	0	0	0	1	2	0	0	2		2	2	1

Architectural Communication-I (BARC1-106)	CO 3: the qualities of good writing.	0	0	0	0	0	0	0	0	1	3	0	3		2	2	1
	CO 4: building up and expansion of vocabulary active use of Architectural vocabulary	2	0	0	1	0	0	0	0	0	3	0	3		2	1	1
	CO:5 Presentation of various site reports, case studies and methods of holding meetings.	2	0	2	2	0	0	0	0	2	2	0	2		2	2	1
	CO:6 Preparation of press note of Architectural reports and events.	2	2	-	2	0	0	0	0	-	2	0	2		2	2	1
	AVG	2	2	2	1.5	0	0	0	1	1.6	2.4	0	2.3		2.1	2	1
Building Sciences & Technology - I (BARC1-107)	CO 1: Understanding the various building materials used in construction of a building with study of their Constituents, Properties,	1	1	2	0	0	0	0	0	2	0	1	2		2	1	1
	CO 2: Understanding the Types, Uses & Market rates of building materials.	1	2	0	0	0	0	0	0	0	1	2	1		1	2	1
	CO 3: Understanding the details of Brick masonry & Stone masonry	2	1	0	1	0	0	0	2	0	0	1	2		3	1	1
	CO 4: Understanding the construction details of locally available materials	1	2	1	1	0	0	0	0	0	0	0	1		1	1	2
	CO 5: Understanding of relevance of Building science in Architecture	1	2	0	0	0	0	0	1	0	0	1	3		1	2	3
	CO 6: Knowledge about the natural calamities and its effects on the stability of buildings	2		0	0	0	0	1	1	1	0	2	3		1	1	1
	AVG	1.3	2	1.5	1	0	0	1	1.3	1.5	1	1.1	2		1.5	1.3	1.5
Model Making - I (BARC1-108)	CO 1: Understand basic carpentry techniques.	2	1	0	0	0	0	0	0	0	0	0	2		3	2	2
	CO 2: Knowledge of Joinery techniques and various model making techniques.	2	1	0	0	0	0	0	0	0	0	0	2		2	2	2
	CO 3: Understand methods using different materials.	2	1	0	0	0	0	0	0	0	0	0	2		2	3	1
	CO 4: Tools used in carpentry.	2	1	0	0	0	0	0	0	0	0	0	2		1	1	1
	CO:5 Model making techniques using different materials.	2	1	0	0	0	0	0	0	0	0	0	3		2	2	2
	CO:6 Methods of Preparations of Model	2	1	0	0	0	0	0	0	0	1	0	2		2	2	2
	AVG	2	1	0	0	0	0	0	0	0	1	0	2.1		2	2	1.5
Architectural Design - II (BARC1-209)	CO 1: Enable to distinguish constraints in the Architectural design of a small scale building with reference to function, form and site.	3	2	0	1	0	0	0	0	0	0	0	0		2	3	1
	CO 2: Employ learnings to relate the function and physical form with the surrounding site and environment.	3	1	0	2	0	0	0	0	0	0	0	0		2	3	1
	CO 3: Design space up to small residential and commercial spaces.	3	2	3	3	1	0	0	0	0	0	0	0		2	3	1
	CO 4: Knowledge to relate site level vehicular movement with the built mass.	3	2	1	0	0	0	0	0	0	0	0	0		2	3	1
	CO 5: Understand about different type of parking lots and their design.	2	1	3	0	0	0	0	0	0	0	0	0		2	3	1
	CO 6: Understand the role of residents behaviour and expectations towards space design.	2	0	0	3	0	0	0	0	0	3	0	0		2	3	1
	AVG	2.67	1.33	1.17	1.5	0.17	0	0	0	0	0.5	0	0		2	3	1
Building Construction - II (BARC1-210)	CO 1: Detailing of various components of structure	2	3	0	0	1	0	0	0	0	0	0	3		3	2	1
	CO 2: Knowing about the detailing doors and windows	2	2	2	0	1	0	0	0	1	0	0	2		1	1	1
	CO 3: Knowing about the detailing types of roofs and floors.	2	2	2	0	1	0	0	0	0	0	1	2		1	2	2
	CO 4: Knowledge about the sequence of activities for execution of the building	3	3	0	0	1	0	0	0	0	0	0	2		1	1	2
	CO 5: Understanding the types of the door and their implimentations	2	2	0	0	1	0	0	2	0	0	0	2		1	2	1
	CO 6: Knowledge of the sectional details of various components	2	3	2	0	-	0	0	0	0	0	0	3		1	1	3
	AVG	2.1	2.5	2	0	1	0	0	2	1	0	1	2.16		1.3	1.5	1.5
Architectural Drawing – II (BARC1-211)	CO 1: Draw perspectives of various forms	3	0	2	0	0	0	0	0	0	0	0	1		2	3	1
	CO 2: Sciography in plans and elevations.	3	0	1	0	0	0	0	0	0	0	0	1		3	3	1
	CO 3: Visualize and convert his/her thoughts and ideas of design into 3-D forms.	2	0	2	0	0	0	0	0	0	0	0	2		2	2	1
	CO 4: Construction of interior perspectives	3	2	2	0	0	0	0	0	0	0	0	3		3	2	1
	CO5: Basic understanding of Orthographic projections.	2	0	2	0	0	0	0	0	0	0	0	2		2	2	1
	CO6: Draw isometric views.	3	1	3	0	0	0	0	0	0	0	0	3		2	2	1
	AVG	2.6	1	2	0	0	0	0	0	0	0	0	2		2.3	2.3	1

Visual communication-II (BARC1-212)	CO 1: The fundamentals of sketches and perspectives.	3	0	3	0	0	0	0	0	0	0	0	3		3	2	1
	CO 2: writing styles in calligraphy.	0	0	1	0	0	0	0	0	0	0	0	1		3	2	1
	CO 3: Rendering of perspective views in all colour mediums.	2	0	2	0	0	0	0	0	0	0	0	2		2	2	1
	CO 4: Sketching and rendering of various scenes.	3	0	1	0	0	0	0	0	0	0	0	3		2	2	1
	CO:5 Outdoor free hand sketching of trees, shrubs, simple buildings, human figures.	3	0	-	0	0	0	0	0	0	0	0	3		1	2	1
	CO:6 Use of various colouring mediums i.e., pencil colours, oil pastels, crayons and water colours etc.	3	0	2	0	0	0	0	0	0	0	0	3		2	2	1
	AVG	2.3	0	1.8	0	0	0	0	0	0	0	0	2.5		2.1	2	1
Theory of Design (BARC1-213)	CO 1: Understand the relationship between configuration of form and space.	3	0	1	2	0	0	0	0	0	0	0	0		1	3	1
	CO 2: Knowledge to appreciate the quality of architectural spaces.	3	0	0	3	0	0	0	0	0	1	0	2		2	3	1
	CO 3: Employ skills to articulate building forms and surrounding spaces.	3	0	3	0	0	0	1	0	0	2	0	0		2	3	1
	CO 4: Design for the provision of opening, circulation spaces within the built mass.	3	2	3	0	1	0	3	0	0	0	0	0		2	3	1
	CO 5: Distinguish between regular and irregular forms through collision and articulation	3	3	3	0	1	0	0	0	2	0	0	0		2	3	1
	CO 6: Understant the visual properties of forms.	3	1	0	3	0	0	0	0	0	2	0	0		2	3	1
	AVG	3	1	1.67	1.33	0.33	0	0.67	0	0.33	0.83	0	0.33		1.83	3	1
Structure Design-I (BARC1-214)	CO 1:Understand the concept of stress and strain	2	2	3	2	0	0	0	0	0	0	0	1		1	2	1
	CO 2: Understand the concept of shear srtess and bending moment and determine it for various types of beams.	2	2	3	2	0	0	0	0	0	0	0	1		2	2	3
	CO 3: An ablity to get confidence to analyse and design masonary structure.	1	1	3	0	0	0	0	0	0	0	0	1		2	3	3
	CO 4: An ablity to understand and analyze the design concept.	2	1	3	2	0	0	0	0	0	0	0	0		2	3	3
	CO 5: An ablity to apply therotical knowledge to solve practical problems.	1	0	3	0	0	0	0	0	0	0	0	0		2	3	2
	CO 6: Understanding about the strength and behaviour of masonary structures	2	0	3	0	0	0	0	0	0	0	0	1		2	2	3
	AVG	1.67	1.5	3	2	0	0	0	0	0	0	0	1		1.83	2.5	2.5
Building Sciences &Technology-II (BARC1-215)	CO 1: Understanding the basic behaviour of soil w.r.t, foundations.	0	1	0	2	0	0	1	0	0	3	0	0		1	1	2
	CO 2: Knowledge about of various finishes to be applied to building surface.	2	2	0	0	1	0	0	0	0	2	0	0		3	1	1
	CO 3: Understanding of Materials and finishes available in the market under different trade names to study their properties, uses etc.	2	1	0	1	0	0	0	0	0	0	2	1		3	1	2
	CO 4: Understanding of the market price of different materials.	0	1	0	1	2	0	0	0	0	0	0	2		1	1	1
	CO 5: Understanding of characteristics of soil.	0	1	0	2	0	1	0	0	0	0	2	0		1	2	2
	CO 6: Knowledge of all classification of surface finishes.	1	2	0	1	2	0	0	0	0	0	0	2		2	2	1
	AVG	1.6	1.4	0	1.4	1.6	1	1	0	0	2.5	2	1.6		1.8	1.3	1.5
Structure System-I (BARC1-216)	CO 1: The predominantly pictorial nature of an Architect's language.	2	3	0	0	0	0	0	0	0	0	0	2		1	1	1
	CO 2: The physical-mechanical essence of the subject matter.	2	3	0	0	0	0	0	0	0	0	0	2		1	1	1
	CO 3: The orientation of all Architectural efforts to Form and Space.	3	2	1	0	0	0	0	0	0	0	0	2		1	1	3
	CO 4: Learn various load distribution systems	1	2	3	0	0	0	0	0	0	0	0	0		1	1	2
	CO 5: Learn various structure Systems	1	2	0	0	0	0	2	1	0	0	0	1		1	1	2
	AVG	1.8	2.4	2	0	0	0	2	1	0	0	0	1.75		1	1	1.8
Architectural Design-III (BARC1-317)	CO 1: Distinguish and appreciate the constraints of the site in the evolution of design for small building projects.	2	1	3	2	0	0	0	0	0	0	0	0		2	3	1
	CO 2: Knowledge to handle the flow of masses in buildings like primary school, dispensary, convenience shopping etc.	3	2	1	2	0	0	0	0	0	0	0	0		2	3	1
	CO 3: Employ barrier free design for buildings and adopt Universal Design.	3	1	0	2	1	3	1	0	0	0	0	3		3	3	2
	CO 4: Understand climate responsive architecture.	3	2	2	2	3	2	3	2	0	0	0	3		3	2	2
	CO 5: Design of spaces which are under the preview of urban regulatory controls.	3	3	2	0	1	0	0	0	0	0	0	0		3	2	1

	CO 6: Understand the role of design development stages in the final outcome.	2	1	3	0	0	0	0	1	0	0	0	0		1	3	1
	AVG	2.67	1.67	1.83	1.33	0.83	0.83	0.67	0.5	0	0	0	1		2.33	2.67	1.33
Building Construction-III (BARC1-318)	CO 1:Understanding the process of RCC construction.	1	2	0	1	0	0	0	2	0	0	0	3		1	1	2
	CO 2:Understanding the components of a building, skills and equipment used in shaping them with the help of basic construction details.	2	2	1	1	0	0	0	0	0	0	2	0		2	1	2
	CO 3:Understanding the details of the R.C.C. construction.	1	2	1	1	1	0	0	0	0	0	0	3		1	3	1
	CO 4: Detailing out various R,C,C construction details.	2	1	1	2	2	0	0	2	0	0	0	2		1	1	2
	CO 5: Knowledge of the concept of retaining walls	1	1	0	0	0	0	1	0	0	0	2	2		1	1	1
	CO 6: Understanding the various types of Foundations in R.C.C. and their applications.	1	2	0	2	0	0	0	0	0	0	0	2		1	2	1
	AVG	1.3	1.6	1	1.1	1.5	0	1	2	0	0	2	2		1.5	1.5	1.5
Visual Communication - III (BARC1-319)	CO 1: use of Computer as an aid to drafting and presentation of architectural design projects. Advanced Introduction to Auto Cad, and Introduction to Auto Cad Revit	3	2	2	0	2	0	0	0	0	0	0	3		3	2	1
	CO 2: Advanced commands like layers, viewports, layer-iso and other 2D commands.	-	3	3	0	3	0	0	0	0	0	0	3		3	1	2
	CO 3: Advanced rendering in the Auto Cad, Photoshop and in other 2D Software.	1	2	3	0	0	0	0	0	0	0	0	3		3	1	2
	CO 4: Drafting the complex and multi storied Plans, Sections, and Elevations.	3	1	3	0	0	0	0	0	0	0	0	3		3	1	1
	CO 5: 3-D Modelling on Auto cad of Single Storey and Multi Storey Buildings.	2	2	2	0	0	0	0	0	0	0	0	2		3	2	2
	CO:6 develop design with help of modern digital tools	2	0	0	0	2	0	0	0	0	0	0	2		3	2	1
	AVG	2.2	2	2.6	0	2.3	0	0	0	0	0	0	2.6		3	1.8	1.5
History of Architecture-II (BARC1-320)	CO 1: Understanding basic chronology of historical development in the field of Architecture and civilization.	2	0	0	0	0	0	0	0	0	1	0	1		1	1	2
	CO 2: Acquainting themselves with the key historical buildings of various periods of Architectural history and their characteristic features.	2	1	1	0	0	0	0	1	0	1	0	1		1	1	2
	CO 3: Developing understanding of sketching and understanding of historical buildings, historical analyses and measured drawings.	2	1	1	0	0	0	0	1	0	1	0	1		1	1	1
	CO4: Developing understanding of Early Christian , Byzantine, Romanesque & Gothic Architecture	2	1	1	0	0	0	0	1	0	1	0	1		2	1	1
	CO5: Developing understanding of Renaissance Architecture of Italy.	2	1	1	0	0	0	0	1	0	1	0	1		2	1	2
	CO6: Developing understanding of Islamic Architecture	2	1	1	0	0	0	0	1	0	1	0	1		1	1	2
	AVG	2	1	1	0	0	0	0	1	0	1	0	1		1.33	1	1.67
Structure Design-II (BARC1-321)	CO 1: Learn the basic knowledge of concrete structure	3	0	0	0	0	0	0	0	0	0	0	1		1	1	2
	CO 2: Identify, anylize and compute the design load on typical concrete structures.	2	0	2	0	0	0	0	0	0	0	0	0		2	2	2
	CO 3: Identify the different faliure modes of columns, beam and slab along their design strength.	2	1	3	0	0	0	0	0	0	0	0	0		3	3	3
	CO 4: Design and select the most suitable section and size for column, beam and slab using modern methods, tools and techniques.	2	2	3	0	2	0	0	0	0	0	0	0		3	3	3
	CO 5: Analyse the data and give solution of the problems with sustainable development	2	3	1	0	0	0	2	0	0	0	0	0		3	3	3
	CO 6: Apply relevant Indian Standard Codal provisions to ensure safety and serviceability of structural concrete elements for design developments and learning.	2	0	3	0	0	0	0	0	0	0	0	2		3	3	3
	AVG	2.17	2	2.4	0	2	0	2	0	0	0	0	1.5		2.5	2.5	2.6
Surveying & Levelling-I (BARC1-322)	CO 1: Carry out priliminary surveying in the fiels before start of construction	2	1	1	1	0	0	0	0	0	0	0	0		1	2	3
	CO 2: Taking accurate mesurements, field booking, plotting and adjustment of traverse use various conventional instruments involved in surveying with respect to utility.	0	2	0	0	2	0	0	0	0	0	0	0		1	2	2
	CO 3: Precisely plan a survey for application such as height of the building undertake measurement and plotting	0	1	2	1	2	1	0	0	0	0	0	0		2	1	3
	AVG	2	1.3	1.5	1	2	1	0	0	0	0	0	0		1.3	1.6	2.6
	CO 1:Application of the concepts of climatology in architectural design projects.	0	2	0	1	0	0	1	0	0	1	0	3		1	2	1

Building Science & Tech. - III (BARC1-323)	CO 2:Application of the design principles so as to achieve energy conservation in buildings through passive techniques.	0	2	0	2	0	0	0	0	0	0	0	2		1	1	3
	CO 3: Application of the concepts of Bio-climatic chart	0	1	0	2	0	0	0	0	1	1	0	2		2	1	1
	CO 4: Application of the concepts of architecture into the design.	1	1	0	2	1	0	2	0	0	0	0	1		2	2	3
	CO 5:Understanding the concept of Thermal Comfort	1	1	0	2	0	0	0	0	0	0	0	2		1	1	2
	CO 6:Knowledge about the flow of heat through buildings	1	2	0	1	1	0	1	0	0	0	1	0		1	3	1
	AVG	1	1.5	0	1.6	1	0	1.2	0	1	1	1	2		1.1	1.6	2
Soft Skill Development (BARC1-324)	CO 1: Auto Cad as a Computer Aided Drafting Technique.	1	1	2	0	0	0	0	0	0	0	0	2		3	2	1
	CO 2: Basic commands like copy, paste, stretch, offset, move fillet, extend, trim and other 2D commands.	1	2	2	0	0	0	0	0	0	0	0	2		3	2	1
	CO 3:Drawing the basic Plans, Sections, and Elevations.	2	0	2	0	0	0	0	0	0	0	0	2		3	2	1
	CO 4: Auto Cad and Units.	0	0	0	0	1	0	0	0	0	0	0	1		2	2	1
	CO:5 Advanced rendering Photoshop and in other 2D Software.	0	0	0	0	2	0	0	0	0	0	0	2		2	1	1
	CO:6 3-D Modelling of Multiple Building in a Single Site, Camera View of the Buildings.	2	0	2	0	2	0	0	0	0	0	0	3		2	1	1
	AVG	1.5	1.5	2	0	1.6	0	0	0	0	0	0	2		2.5	1.6	1
Architectural Design-IV (BARC1-425)	CO 1: Understand the significance of contextual factors in architecture through design of climate responsive architecture.	3	2	0	3	2	0	2	0	0	0	0	0		1	3	2
	CO 2: Knowledge about vernacular and rural architecture spread across north India.	2	1	0	3	0	0	1	1	2	0	0	3		1	1	3
	CO 3: Knowledge through educational tour to historical sites, one shall have an in depth knowledge of regional architecture.	2	1	0	3	0	0	1	0	3	0	0	2		1	1	2
	CO 4: Understand about the influence of social and cultural environment on architectural design.	2	0	0	3	0	0	2	1	0	2	0	3		2	2	2
	CO 5: Employ learnings from detailed study of a vernacular settlement in documentation process.	2	0	0	3	0	0	1	0	2	1	0	3		1	2	3
	CO 6: Distinguish between different physical planning and other geomorphic factors.	0	1	0	3	0	0	2	0	0	0	0	0		1	1	2
	AVG	1.83	0.83	0	3	0.33	0	1.5	0.33	1.17	0.5	0	1.83		1.17	1.67	2.33
Building Construction-IV (BARC1-426)	CO 1: Understanding the Timber components of a building.	1	2	0	0	2	0	0	0	0	1	0	1		1	2	1
	CO 2: Understanding the traditional/Contemporary construction methods of a single storied building in timber.	2	1	1	0	1	0	0	0	0	2	0	2		1	1	3
	CO 3: Understanding the various timber roof structures.	2	2	0	0	2	0	0	0	0	0	3	3		2	1	1
	CO 4: Knowledge of the details of the various in timber constuction components	1	2	2	0	2	0	0	0	0	1	0	0		2	2	1
	CO 5: Understanding the implementations of slidind and folding timber doors	1	1	0	0	0	0	0	1	0	0	2	2		2	1	1
	CO 6: Having the knowlege about the usage of cladding with Timber and Timber products in Interior and Exterior	2	2	0	0	1	0	0	0	1	0	1	1		1	2	3
	AVG	2.25	1.6	1.5	0	1.6	0	0	1	1	1.3	2	1.5		1.5	1.5	1.6
Building Sciences &Technology-IV (BARC1-427)	CO 1:Understanding the importance and role of water supply.	1	2	0	0	2	0	0	0	0	2	0	2		1	1	1
	CO 2:Understanding the importance sanitation services in Buildings.	0	2	0	2	1	0	0	0	0	0	0	3		1	2	1
	CO 3: Understanding the solid waste management system in buildings.	1	1	1	1	2	0	0	0	0	2	0	1		1	2	3
	CO 4: Understanding the infrastructure of the building	1	1	0	2	0	0	0	0	0	2	2	2		2	1	1
	CO 5: Understanding the water requirements depending on the building type	2	2	0	0	1	0	0	0	0	0	0	3		1	2	3
	CO 6: Knowledge about the various types of water distribution system	1	2	2	0	1	0	0	0	0	0	0	3		3	3	1
	AVG	1.3	1.6	1.5	1.6	1.1	0	0	0	0	2	2	2.3		1.5	1.8	1.6
Visual Communication - IV	CO 1: draw perspectives of small design projects.	3	1	2	0	0	0	0	0	2	0	0	3		2	3	2
	CO 2: draft and render his/her small design projects into 3-D forms.	1	0	1	0	0	0	0	0	0	0	0	1		3	3	2

(BARC1-428)	CO 3: show sciography through Computer Aided Techniques.	1	0	1	0	1	0	0	0	0	0	0	1		2	2	2
	CO 4: V-ray and Any other Software.	1	0	0	0	2	0	0	0	0	0	0	2		3	2	3
	CO:5 3-D Modelling on 3-D Max.	2	0	0	0	2	0	0	0	0	0	0	2		2	2	2
	CO:6 3-D Modelling on Google Sketch Up.	2	0	0	0	2	0	0	0	0	0	0	2		3	1	1
	AVG	1.6	1	1.3	0	1.7	0	0	0	2	0	0	1.8		2.5	2.1	2
Structure Design-III (BARC1-429)	CO 1: Learn the basic knowledge of steel structure	3	0	0	0	0	0	0	0	0	0	0	1		1	1	2
	CO 2: Identify, anylize and compute the design load on typical steel structures.	2	0	2	0	0	0	0	0	0	0	0	0		2	2	2
	CO 3: Identify the different faliure modes of connections, tension members, compression members and beams and compute their design strength.	2	1	3	0	0	0	0	0	0	0	0	0		3	3	3
	CO 4: Design and select the most suitable section and size for tension, compression members and beams using modern methods, tools and techniques.	2	2	3	0	2	0	0	0	0	0	0	0		3	3	3
	CO 5: Analyse the data and give solution of the problems with sustainable development	2	3	1	0	0	0	2	0	0	0	0	0		3	3	3
	CO 6: Apply relevant Indian Standard Codal provisions to ensure safety and serviceability of structural steel elements for design developments and learning.	2	0	3	0	0	0	0	0	0	0	0	2		3	3	3
	AVG	2.17	2	2.4	0	2	0	2	0	0	0	0	1.5		2.5	2.5	2.6
Design Philosophies-I (BARC1-430)	CO 1: Understanding the basic concepts of designing the buildings done in 20th-Century Architecture.	3	1	2	0	0	0	0	0	0	0	0	3		3	3	2
	CO 2: Developing conceptual and perceptual skills of students to appreciate the basic principles	0	2	2	0	0	0	0	0	0	0	0	2		2	2	1
	CO 3: Developing philosophy of design used in 20th century movements and assess their contributions.	2	0	2	0	0	0	0	0	0	0	0	2		2	2	1
	CO4: Understanding the basic concepts of Chicago School of Architecture, Art Nouveau Architecture & New York School of Skyscraper Architecture	2	0	0	0	0	0	0	0	0	0	0	2		2	2	2
	CO5: Understanding the basic concepts of Early Modernist Architecture to International Style of Modern Architecture of Architecture	3	2	1	0	0	0	0	0	0	0	0	3		3	2	3
	CO6: Understanding the basic concepts of Great masters	3	1	2	0	0	0	0	0	0	0	0	3		3	2	1
	AVG	2.6	1.5	1.5	0	0	0	0	0	0	0	0	2.5		2.5	2.1	1.5
Structure System - II (BARC1-431)	CO 1:Emphasis shall be laid on learning by doing by making of 3-D models to give the students an idea of different spatial experience.	2	3	3	0	0	0	0	0	2	0	0	2		1	1	3
	CO 2:The predominantly pictorial nature of an Architect's language.	2	3	0	0	0	0	0	0	0	0	0	2		1	1	1
	CO 3:The physical-mechanical essence of the subject matter.	2	3	0	0	0	0	0	0	0	0	0	2		1	1	1
	CO 4:The orientation of all Architectural efforts to Form and Space.	3	2	1	0	0	0	0	0	0	0	0	2		1	1	3
	CO 5: Learn various forms of structure system	1	0	2	0	0	0	2	0	0	0	0	2		1	1	2
	CO 6: Learn various type of temporary structure systems which one is durable and constructed in less time	1	0	2	0	0	0	2	0	0	0	0	2		1	2	3
	AVG	1.8	2.75	2	2	2	2	2	2	2	2	2	2		1	1.16	2.16
Educational Tour-I (BARC1-432)	CO 1: Understand the traditional construction techniques used in forts, palaces, religious structures in North India	3	2	3	3	0	0	2	0	0	0	0	0		1	1	3
	CO 2: Understand the planning concepts of traditional indian cities	3	2	3	2	0	0	0	0	0	0	0	0		1	1	3
	CO 3: Awareness of various design principles as employed in historical monuments	3	0	2	0	0	0	3	0	0	0	0	0		1	1	2
	CO 4: Socially responsible	0	0	0	0	0	2	0	3	0	0	0	1		1	2	1
	CO 5: Learn team work.	0	0	0	0	0	0	0	0	3	2	0	1		1	3	1
	CO 6: Learn cultural values of the visited area.	0	0	0	0	0	0	0	0	0	0	0	3		1	1	1
	AVG	3	2	2.6	2.5	0	2	2.5	3	3	2	0	1.6		1	1.5	1.8
	CO 1: Understand and appreciate the concept of Structure and services in the Architectural design of a medium scale building with reference to function, form and site.	3	3	0	2	0	0	0	0	0	0	0	0		2	3	2

ARCHITECTURAL DESIGN – V (BARC1-533)	CO 2: Design basic building services in a multi storied residential and commercial building.	2	3	0	0	0	0	0	0	1	0	1	0		1	3	2
	CO 3: Employ computational tools and techniques for the design of multi storied buildings.	2	2	0	0	3	0	0	0	1	0	0	0		2	3	2
	CO 4: Knowledge about site planning and also be able to understand the possible impact of multi storied building at urban level.	2	2	3	3	3	1	2	1	1	0	0	1		1	3	2
	CO 5: Distinguish between the space design requirements for the differently abled.	3	3	0	1	0	2	0	2	0	0	0	3		2	3	3
	CO 6: Understand the role of behavioural aspects in space planning for users satisfaction.	2	0	0	3	0	0	0	3	0	0	0	1		2	3	1
	AVG	2.33	2.17	0.5	1.5	1	0.5	0.33	1	0.5	0	0.17	0.83		1.67	3	2
Building Construction-V (BARC1-534)	CO 1:Helping students to draw the construction details of structural Steel.	2	2	2	0	1	0	0	0	1	1	0	3		1	1	2
	CO 2:Knowledge about Aluminium and its uses in various building elements including industrial buildings	2	1	0	0	1	0	0	1	0	0	0	2		1	1	3
	CO 3:Undersanding the Construction of various types of doors in Steel & Aluminium	1	1	1	1	2	0	0	0	0	0	2	2		1	2	1
	CO 4: Understanding the construction of windows in Steel & Aluminium	2	1	0	0	2	0	0	0	0	0	0	2		2	1	2
	CO 5:Understanding the details of mezzanine floors.	1	0	1	0	0	0	0	0	0	0	0	1		2	1	1
	CO 6:Understanding the implementaions of light weight partitions	1	1	0	0	0	0	1	0	0	0	0	2		1	2	3
	AVG	1.5	1.3	1.3	1	1.5	0	1	1	1	1	2	2		1.3	1.3	2
On site construction Training (BARC1-535)	CO 1: Understand process of planning, progress and management of construction process.	1	3	1	0	0	0	3	0	0	0	3	3		3	2	1
	CO 2: Learn about the building materials and technologies used in construction	0	0	0	0	3	0	0	0	0	0	0	3		3	2	2
	CO 3: Learn the role of various team members in construction.	0	0	0	0	0	3	0	0	3	1	0	2		2	3	1
	CO 4: Understand how to solve problems on the construction site.	0	3	0	2	0	0	0	3	0	0	0	3		2	3	1
	CO 5: Become socially responsible.	0	0	0	0	0	0	0	3	0	0	0	2		2	2	1
	CO 6: Enhanse and learn how to communicate with clients and learn local vocabulary	0	0	0	0	0	0	0	1	2	3	0	2		2	1	1
	AVG	1	3	1	2	3	3	3	2.3	2.5	2	3	2.5		2.3	2.1	1.16
Landscape Architecture (BARC1-536)	CO 1: Understanding the role & importance of landscape in Architecture	1	0	1	0	0	0	2	0	0	0	0	0		2	1	2
	CO 2: Understanding the elements of Landscape and their role.	1	0	1	0	0	0	2	0	0	0	0	1		1	1	1
	CO 3: Identifying plant characteristics of various types of Trees, Shrubs, Cacti Bushes and Creepers	1	0		0	0	0	2	0	0	0	0	1		2	1	2
	CO 4: Understading Historical development, Design Principles, salient features & elements of various garden styles	1	0	2	0	0	0	1	0	0	0	0	1		2	1	2
	CO 5: Studying and analyzing site in relation to landscape design	1	1	2	0	0	0	1	0	0	0	0	1		2	1	2
	AVG	1	1	1.5	0	0	0	1.6	0	0	0	0	1		1.8	1	1.8
Building Sciences &Technology-V (BARC1-537)	CO 1:Understanding the importance and role of Electrical Layouts.	0	1	1	2	1	0	0	0	0	0	0	2		1	1	3
	CO 2:Understanding the importance of Fire Safety in the building	0	2	2	0	1	0	0	0	0	0	0	1		1	2	1
	CO 3:Understanding the importance of Acoustics in Buildings.	1	1	3	2	1	0	0	0	0	0	0	3		1	1	2
	CO 4:Understanding the importance of services in the building.	2	1	0	1	1	0	0	0	0	0	0	1		1	1	1
	CO 5: Detailing out the various layout plans of the building	1	1	0	1	2	0	0	0	0	0	0	2		2	1	1
	AVG	1.5	1.2	2	1.2	1.2	0	0	0	0	0	0	1.8		1.2	1.2	1.6
History of Architecture-III (BARC1-538)	CO 1: Understanding basic chronology of historical development as per the of syllabus.	2	0	0	0	0	0	0	0	0	0	0	2		3	3	2
	CO 2:Acquainting themselves with the key historical buildings of various periods of Architectural history and their characteristic features.	3	0	2	0	0	0	0	0	0	0	0	3		3	1	1
	CO 3:Understanding the importance of the development of world Architecture from Neo classical style up to Industrial revolution	3	0	1	0	0	0	0	0	0	0	0	3		2	2	2

	CO4: Understanding the importance of the development of Rajput Architecture in India.	2	0	0	0	0	0	0	0	0	0	0	3		2	2	1
	CO5: Understanding the importance of the development of Sikh Architecture in India	2	0	0	0	0	0	0	0	0	0	0	2		2	1	1
	CO6: Understanding the importance of the development of Colonial Architecture in India	2	0	0	0	0	0	0	0	0	0	0	2		2	1	1
	AVG	2.3	0	1.5	0	0	0	0	0	0	0	0	2.5		2.3	1.6	1.3
Tall Buildings (BARC1-539)	CO 1: Understanding the need of High rise buildings in Urban context and the issues related with tall buildings	0	0	0	0	0	1	1	0	0	0	0	1		2	1	2
	CO 2: Understanding the planning, design, structure, and construction in high rise buildings.	1	0	2	0	0	0	0	0	1	0	0	1		1	1	2
	CO 3: Studying and understanding High rise buildings as per the norms and Standards prescribed in NBC/ Bye-Laws	0	0	2	0	0	1	1	0	0	1	0	1		1	2	1
	CO 4: Understanding the concepts of Energy Efficiency and sustainability in tall buildings.	0	0	0	0	0	1	2	0	0	0	0	1		2	1	2
	CO 5: Understanding the mechanical and other building services of High rise buildings	0	0	2	0	2	0	1	0	0	0	0	1		3	1	3
	CO 6: Understanding the circulation and fire safety in tall buildings	0	0	1	1	1	0	1	0	0	0	0	1		3	1	3
	AVG	1	0	1.4	1	1.5	1	1.2	0	1	1	0	1		2	1.17	2.17
Design Philosophies-II (BARC1-540)	CO 1: Understanding the approach of master architects towards design of buildings in India.	1	0	2	0	0	0	0	0	0	0	0	0		1	1	0
	CO 2: Understanding about the various aspects of Architectural design as employed by Master Architects	0	0	2	0	0	0	0	1	0	0	0	0		0	1	0
	CO 3: Understanding about buildings designed by Master Architects	0	0	0	0	0	0	1	1	0	0	0	0		1	1	0
	CO4: Understanding the Post-Independence influence of Modern Masters in India	1	0	1	0	0	0	0	0	0	0	0	1		1	1	0
	CO5: Understanding the Indian Modern Architects-philosophy and works in India and abroad	0	0	1	0	0	0	0	0	0	0	0	0		1	1	0
	CO6: Understanding the philosophy of Architects who incorporated Regionalism, Technological advancements and Cost Effectiveness in Indian Architecture	0	0	0	0	0	0	1	1	0	0	0	0		1	0	0
	AVG	1	0	1.5	0	0	0	1	1	0	0	0	1		1	1	0
Architectural Design-VI (BARC1-641)	CO 1: One shall be able to understand and appreciate the constraints of combining varying structural spans in complex building typologies and interweaving them with structure, site and architectural form and expressions.	3	3	0	0	2	0	0	0	1	0	2	0		2	3	1
	CO 2: Understand and appreciate the interrelationship between form and scale	3	1	2	0	0	0	0	0	0	0	0	0		2	3	1
	CO 3: Employ natural elements like Light, Sound, Shadow, water, landscape in the design projects related to art, craft, performing art, museum, exhibition spaces.	3	2	0	3	3	0	0	0	0	3	0	1		2	3	3
	CO 4: Design the concept of mixed use spaces.	3	2	3	2	0	0	1	0	3	0	0	0		2	3	1
	CO 5: Distinguish between the projects located in urban and non-urban areas.	3	2	0	3	0	0	2	0	0	0	0	1		2	2	1
	CO 6: Knowledge of digital techniques for assessment and redefining of design.	2	2	0	0	3	0	0	0	0	0	0	0		2	3	3
	AVG	2.83	2	0.83	1.33	1.33	0	0.5	0	0.67	0.5	0.33	0.33		2	2.83	1.67
Building Construction-VI (BARC1-642)	CO 1:Knowledge about the drafting techniques of construction drawings	1	1	0	2	1	0	0	0	0	0	0	3		1	2	1
	CO 2:Knowledge about the Joinery Details	2	1	1	0	0	0	0	0	0	0	0	2		2	1	1
	CO 3:Knowledge about the plumbing details	1	1	1	0	0	0	0	0	0	0	0	2		1	2	1
	CO 4: Knowledge about the electrical details	2	1	1	0	0	0	0	0	0	0	0	2		1	1	3
	CO 5: Understanding of working drawings.	1	2	2	0	0	0	0	0	0	0	2	1		1	2	3
	CO 6: Understanding of Extension, Expansion and Construction Joints, their details and treatment	1	1	0	2	0	0	2	0	0	0	0	1		2	1	1
	AVG	1.3	1.1	1.2	2	1	0	2	0	0	0	2	1.8		1.3	1.5	1.6
Building Sciences	CO 1:Understanding the use and application of various advanced building services for the design assignments.	0	2	0	0	2	1	1	0	0	0	1	0		1	1	3
	CO 2:Understanding the Heating and Air-conditioning Systems	1	2	0	1	1	1	0	1	0	1	1	0		2	2	2

&Technology-VI (BARC1-643)	CO 3:Understanding the Mechanical Transportation Systems	0	2	0	1	1	1	0	0	2	2	0	0		1	1	1
	CO 4: Understanding the concepts of comfort cooling systems & their working	0	2	0	2	0	2	0	0	1	0	1	2		1	1	1
	CO 5: Knowledge of Natural and Artificial Ventilation	1	2	0	1	1	0	0	0	0	1	0	1		3	1	1
	CO 6: Understanding the concept of intelligent buildings	1	1	1	1	0	0	0	0	0	1	0	1		1	1	2
	AVG	1	1.8	1	1.2	1.2	1.2	1	1	1.5	1.2	1	1.3		1.5	1.2	1.6
Interior Design (BARC1-644)	CO 1: Understanding and appreciating the discipline of Interior design and its relation with Architectural Design.	2	0	2	0	0	0	0	0	0	0	0	1		2	1	2
	CO 2: Understanding principles of Interior Design and their application in the context of buildings	1	0	2	0	0	0	0	0	0	1	0	1		2	1	2
	CO 3: Understanding various colour schemes, lihghting, textures, etc. in Interior design	1	0	0	0	1	0	0	0	0	0	0	1		2	1	2
	CO 4: Understanding the materials and techniques used in Interior design	1	0	0	0	1	0	0	0	0	0	0	1		3	1	2
	CO5 : Understanding the modern trends in the field of Interior design	1	0	2	0	0	0	0	0	0	1	0	1		3	1	2
	CO 6: Designing the interior of small and medium sized projects	1	0	2	0	0	0	0	0	2	0	0	1		3	1	2
	AVG	1.4	0	2	0	1	0	0	0	2	1	0	1		2.5	1	2
Estimating & Costing (BARC1-645)	CO 1:Understanding the process of preparing estimates	1	2	0	0	1	1	0	0	1	1	1	1		2	3	1
	CO2: Understanding types of Estimates and their calculations	1	2	0	1	2	1	0	0	2	1	2	2		2	3	1
	CO 3: Preparing Analysis of rates of material and labour required for various items of work.	1	3	0	1	1	1	0	0	2	1	1	2		2	3	1
	CO 4:Understanding Tenders, their type, Process, Scrutiny and Selection of Contractors, Pre-Qualification and Registration of Contractor.	1	2	0	1	1	1	0	0	1	1	0	2		2	2	1
	CO5: Understanding and calculation of Valuation	1	2	0	1	1	1	0	0	1	1	0	1		2	2	1
	CO6: Preparing specifications for various items of work	1	2	0	1	1	1	0	0	2	1	0	1		2	2	1
	AVG	1	2.17	0	1	1.17	1	0	0	1.8	1	1.33	1.8		2	2.5	1
Design Philosophies-III (BARC1-646)	CO 1: Understanding the approach of eminent architects towards designing of buildings.	3	0	2	0	2	0	3	0	0	0	0	2		1	1	3
	CO 2: Understanding Structural Expressionism (High-Tech Architecture)	3	0	2	1	3	0	3	0	0	0	0	0		1	1	3
	CO 3: Understanding theories of Deconstructivism	3	0	2	1	3	0	2	0	0	0	0	0		1	1	3
	CO4: Understanding of Theoretical issues in contemporary architecture	3	0	2	1	3	0	3	0	0	0	0	0		1	1	3
	CO5: Understanding theories of Neo Futurism	3	0	2	1	3	0	3	0	0	0	0	0		1	1	3
	CO6: Understanding the theories of Program, Function and Philosophies used in Contemporary architecture	3	0	2	1	3	0	3	0	0	0	0	0		1	1	3
	AVG	3	0	2	1	1.16	0	2.8	0	0	0	0	2		1	1	3
Architectural Legislation (BARC1-647)	CO 1: Understand the Legal Framework in Architectural Practice.	2	0	0	0	0	3	0	2	0	0	0	0		3	3	1
	CO 2: Knowledge to appreciate architectural design approaches adopted by master architects and planners.	3	0	0	3	0	0	0	0	0	2	0	0		2	3	1
	CO 3: Understand he importance of Preservation and Conservation of Heritage Buildings and their regulations.	3	0	0	2	0	3	0	0	0	0	0	0		2	2	1
	CO 4: Knowledge of nation level building norms and standards through National Building Code, Indian Standard Codes, Local Building Bye-Laws, Disability Act etc.	2	0	0	2	0	3	0	0	0	0	0	3		3	3	1
	CO 5: Distinguish between building norms of various Urban Local Bodies.	2	0	0	3	0	2	0	0	0	0	0	0		2	2	1
	CO 6: Design of development controls.	3	3	0	3	0	2	2	2	3	0	0	0		2	2	1
	AVG	2.5	0.5	0	2.17	0	2.17	0.33	0.67	0.5	0.33	0	0.5		2.33	2.5	1
Architectural Design-VII	CO 1: Understand and appreciate the with complex functional, circulation and safety requirements.	3	2	0	3	0	0	0	1	2	0	0	1		3	3	2
	CO 2: Design public building while incorporating the requirements being set for Universal design.	3	3	0	0	0	0	0	2	2	0	0	0		3	3	2
	CO 3: Distinguish the impact of public building on urban surroundings and vice versa.	3	2	3	3	2	0	2	0	1	0	0	0		2	2	1

(BARC1-748)	CO 4: Knowledge about the services required by public buildings which may include Fire safety, Solid Waste management, Water supply and sanitation, Air Conditioning, Gas Supplies etc.	3	2	0	3	3	1	0	0	0	0	2	3		3	3	2
	CO 5: Employ the outcome from library and Proto type studies for project designing.	2	0	0	3	0	0	0	0	2	1	0	0		2	2	1
	CO 6: Design physical models for volumetric studies.	2	0	0	3	0	0	0	0	3	2	0	0		1	3	2
	AVG	2.67	1.5	0.5	2.5	0.83	0.17	0.33	0.5	1.67	0.5	0.33	0.67		2.33	2.67	1.67
BUILDING CONSTRUCTION-VII (BARC1-749)	CO 1:Knowledge about the latest trends/ methods of construction.	1	1	2	0	0	0	0	0	0	0	0	3		2	1	1
	CO 2:Knowledgeabout the Prefabricated and precast building construction and details.	2	0	0	1	0	0	0	0	2	2	2	2		1	1	3
	CO 3:Knowledge about the Tubular construction system and details.	1	2	1	2	1	0	0	0	0	1	0	2		2	2	2
	CO 4: Knowledge about the drafting techniques of the latest methods of construction	1	1	1	1	2	0	0	0	0	2	0	1		2	1	1
	CO 5: Understanding of modular construction	1	1	0	0	0	0	0	0	0	0	2	2		3	1	2
	CO 6: Knowledge about the structural & non-structural cladding	2	2	0	0	0	0	2	0	0	2	1	1		1	2	1
	AVG	1.2	1.1	1.4	1.5	1.7	0	2	0	2	1.8	1.6	1.9		2.1	1.6	2.2
Housing (BARC1-750)	CO 1: Understanding various aspects, issues and considerations affecting housing problems and their solutions for India	0	0	0	0	0	2	0	0	1	0	0	1		2	1	2
	CO 2: Understanding the housing need, shortage and cost components of Housing	0	0	0	0	0	2	0	0	0	1	0	1		1	1	2
	CO 3: Understanding Housing policies in India and the role of financial institutions.	0	0	0	0	0	1	0	0	1	0	0	1		1	2	1
	CO 4: Understanding the affordable housing and various typologies related to housing in Indian context.	0	0	0	0	0	2	1	0	0	0	1	1		2	1	2
	CO 5: Enable to carry out need assessment of targeted housing stock in urban areas and strategies for alternative housing typologies in development of urban areas.	0	0	0	0	0	2	0	0	0	0	0	1		3	1	3
	CO 6: Understanding housing surveys and analyse the survey	0	0	0	0	0	1	0	0	2	0	0	1		3	1	3
	AVG	0	0	0	0	0	1.67	1	0	1.33	1	1	1		2	1.17	2.17
CONSTRUCTION MANAGEMENT (BARC1-751)	CO 1:Handling and managing the project efficiently	0	1	0	0	2	0	0	0	0	2	2	2		2	1	1
	CO 2:Understanding the Construction stages, Construction team, Equipment Management	1	2	0	2	0	1	0	0	0	0	1	2		2	2	3
	CO 3:Understanding the Quality and Safety- Objectives, Issues, Organizing for Quality and Safety	0	1	0	0	0	1	0	1	0	1	2	2		1	1	3
	CO 4: Understanding the costing of the project at various stages	0	2	0	2	2	0	0	0	0	2	1	1		2	1	2
	CO 5: Understanding the role of an architect in the society	1	1	0	2	2	0	0	0	0	3	2	3		1	2	1
	CO 6: Understanding the importance of project management and team work	0	1	0	-	2	0	0	0	0	1	3	3		2	1	1
	AVG	1	1.3	0	2	2	1	1	1	0	1.5	1.9	2.1		1.6	1.3	1.8
Town Planning (BARC1-752)	CO 1: Understanding the importance and role of Town Planning in the Historical and Modern Context.	1	0	1	0	0	1	0	0	0	0	0	1		2	1	2
	CO 2: Understanding Human Settlements - Classification based on Road Pattern, Form, space, use & Population.	1	0	1	0	0	1	0	0	0	0	0	1		1	1	2
	CO 3: Understanding Planning Concepts- Garden City, Linear City, Industrial City and Sustainable City, Compact city and TOD	1	0	1	0	0	1	2	0	0	0	0	1		1	2	1
	CO 4: Evaluating the pattern of growth in Indian cities and their problems	1	0	1	1	0	1	0	0	2	1	0	1		2	1	2
	CO 5: Understanding new approaches of town planning such as smart cities, green cities, and development plans	1	0	1	0	0	1	2	0	0	1	0	1		3	1	3
	CO 6: Understanding the role of development authorities in the growth of cities	1	0	1	0	0	1	2	0	0	1	1	1		3	1	3
	AVG	1	0	1	1	0	1	2	0	2	1	1	1		2	1.17	2.17

EDUCATIONAL TOUR-II (BARC1- 753)	CO 1: Understand the construction techniques used in historic and modern structures in India	3	0	0	2	0	0	0	0	1	3	0	0		2	1	1
	CO 2: Understand the urban design of indian cities	3	0	0	2	0	0	0	0	0	0	0	0		1	1	3
	CO 3: Awareness of various modern buildings designed by contemporary architects of India.	1	1	3	2	0	0	0	0	0	0	0	0		1	1	2
	CO 4: Understand development pattern of the city.	2	0	2	2	0	0	3	0	0	0	0	0		1	1	3
	CO 5: Understand the form and the skylineof the city.	2	0	2	1	0	0	1	0	0	0	0	0		1	1	3
	CO 6: Understand the different land marks and nodes of the visited city.	2	0	2	1	0	0	2	0	0	0	0	0		1	1	3
	AVG	2.16	1	2.25	1.6	0	0	2	0	1	3	0	0		1.16	1	2.5
Personality Development (BARC1-754)	CO 1: convey his/her ideas through oral/ visual presentations	2	0	2	0	0	0	0	0	0	2	0	2		3	2	2
	CO 2: Self-analysis SWOT	2	2	2	2	0	0	0	0	0	2	0	2		2	2	1
	CO 3: Business situation handling.	1	0	0	1	0	0	0	0	0	1	0	1		2	2	2
	CO 4: Leadership Qualities Reviews,	1	1	0	1	0	0	0	0	0	2	0	2		1	1	1
	CO:5 Public Speaking/Presentation.	0	0	0	2	0	0	0	3	3	3	0	3		2	2	1
	CO:6 Goal Setting techniques.	0	0	0	2	0	0	0	2	2	2	0	2		3	3	1
	AVG	1.5	1.5	2	1.6	0	0	0	2.5	2.5	2	0	2		2.1	2	1.3
Lighting & Illumination (BARC1- 761)	CO 1: Understanding the principles of visual performance and photometric terms	1	0	1	0	0	0	1	0	0	0	0	1		2	1	2
	CO 2: Understanding Colour Specification with Munsel and CIE system alongwith additive and substractive colour mixing.	1	0	1	0	0	0	0	0	0	0	0	1		1	1	2
	CO 3: Understanding of lighting principles and different electric lamps alongwith their properties	1	0	2	0	0	0	1	0	0	0	0	1		1	2	1
	CO 4: Understanding luminaire properties and illumination schemes.	1	0	2	0	0	0	1	0	0	0	0	1		2	1	2
	CO 5: Calculating illumination due to daylight using daylight factor, day lighting practices and integration with electric lighting	1	0	1	2	0	0	1	0	0	0	0	1		3	1	3
	CO 6: Calculating quantitative lighting design of a simple space manually using lumen method	1	0	1	2	1	0	0	0	0	0	1	1		3	1	3
	AVG	1	0	1.6	2	1	0	1	0	0	0	1	1		2	1.17	2.17
Disaster Management for Buildings (BARC1- 762)	CO 1:Understanding the various Pre and Post-disaster design and management measures to make buildings safe against Earthquakes.	1	2	0	1	0	2	0	1	0	2	1	1		1	1	2
	CO 2:Understanding the General requirements, principles and measures for making safe building design against Fire, Floods, Cyclones, Landslide, Tsunami Avalanche, etc.	1	1	0	2	0	0	2	1	0	1	1	0		1	1	2
	CO 3:Understanding the Special construction techniques to make buildings safe against eathquakes	1	1	1	1	0	0	0	2	0	2	0	0		2	3	1
	CO 4: Understanding the concept of disaster mitigation	0	1	0	1	2	0	0	2	0	0	0	0		1	1	2
	CO 5: Understanding the role of architects in creating safe buildings	1	1	1	0	0	0	1	0	2	0	2	2		1	2	3
	AVG	1	1.2	1	1.2	2	2	1.5	0.5	2	1.8	1.6	1.5		1.2	1.6	2
Practical training of 24 weeks duration (BARC1-855)	CO 1: Understand the practical approach towards designing of buildings.	3	0	3	0	0	0	2	0	0	0	0	3		3	2	1
	CO 2: Understand the site management and office management	1	3	0	0	0	0	0	0	0	0	3	0		2	3	1
	CO 3: Get opportunity to design and execute buildings on site.	1	2	3	2	0	0	2	0	0	0	0	0		3	2	1
	CO 4: Understand various construction details that apply on site.	2	0	0	0	3	0	0	0	0	0	0	3		3	2	1
	CO 5: Learn team work and become socially responsible	0	0	0	0	0	3	0	3	3	0	0	2		2	3	1
	CO6: Enhanse and learn how to communicate with clients and learn local vocabulary	0	0	0	0	0	2	0	0	2	3	0	2		2	3	1
	AVG	1.75	2.5	3	2	3	2.5	2	3	2.5	3	3	2.5		2.5	2.5	1
	CO 1: Understand and appreciate the concept of planning and other allied services required in the large scale building.	3	3	0	2	0	0	1	0	0	0	2	0		1	2	2
	CO 2: Design an existing urban environment to identify its typical characteristics and problems.	2	3	0	3	2	0	1	0	0	0	0	0		1	2	1

Architectural Design-VIII (BARC1-956)	CO 3: Knowledge to relate human behaviour with the environment and design spaces accordingly.	3	0	0	3	0	0	3	1	0	0	0	2		2	3	3
	CO 4: Distinguish various type of circulation spaces which are required to segregate different set of spaces, which are part of a single building/ complex.	2	3	3	3	0	0	0	0	1	0	0	0		1	3	1
	CO 5: Employ the learnings from historical context of the designated site	3	0	0	3	0	0	1	0	0	0	0	2		2	2	2
	CO 6: Employ the concepts urban development and ecologically sensitive control.	2	1	2	3	3	0	3	1	3	0	0	0		1	2	1
	AVG	2.5	1.67	0.83	2.83	0.83	0	1.5	0.33	0.67	0	0.33	0.67		1.33	2.33	1.67
Research Methods & Dissertation Writing (BARC1-957)	CO 1: Analyze and write reports on fine arts literature	1	0	0	2	0	0	0	0	0	2	0	2		3	3	1
	CO 2: Appraisal / evaluation, write reports on architectural projects.	1	0	0	0	0	0	0	0	0	1	0	1		2	2	1
	CO 3: Techniques of report and review writing, their application to architectural publications.	2	0	0	0	0	0	0	0	0	2	0	2		2	2	1
	CO 4: Research methods, evaluation of results and its application.	0	0	0	1	0	0	0	0	0	1	0	1		2	2	2
	CO:5 Analyze and evaluate architectural projects etc. and also understand architectural research with special emphasis on India.	2	0	0	0	0	0	0	0	0	2	0	2		3	2	2
	CO:6 Architectural Research on various projects.	2	0	0	2	0	0	0	0	0	0	0	2		3	3	2
	AVG	1.6	0	0	1.6	0	0	0	0	0	1.6	0	1.5		2.5	2.3	1.5
Urban Design (BARC1-958)	Understanding the importance and role of Urban Design in the Historical and Modern Context and be able to interpret the urban forms of the past and present	1	0	2	0	0	0	0	0	0	0	0	1		2	2	2
	Understanding the elements of Urban design and determinants of Urban Form	1	0	2	0	0	0	0	0	0	0	0	1		2	2	2
	Understanding the Urban Spaces typology and design principles	1	0	2	0	0	0	0	0	0	0	0	1		2	2	1
	Understanding the Urban development controls and Legal framework	1	0	1	0	0	0	0	0	0	2	0	1		2	1	2
	Understanding the process of Landscape design and its application in Architectural Design solutions through examples from historical and contemporary gardens	0	0	1	0	0	0	2	0	0	0	0	1		3	1	3
	Understanding landscape design in terms of elements of landscape such as earth, rock, water and vegetation, in the context of their environmental aspects and concerns.	0	0	0	0	0	0	0	0	0	0	0	0		3	1	3
	AVG	1	0	1.6	0	0	0	2	0	0	2	0	1		2.34	1.5	2.17
Landscape Design (BARC1-963)	Understanding contour/mapping and various methods of documentation of physical features, topography and landscape elements.	1	0	1	0	0	1	1	0	0	0	0	1		2	2	2
	Understanding and analyzing site in relation to landscape design in order to take site planning decisions	1	0	1	0	0	1	1	0	0	0	0	1		2	2	2
	Understanding contour/mapping and various methods of documentation of physical features, topography and landscape elements.	0	0	1	1	0	1	1	0	0	0	0	1		2	2	1
	Understanding and analyzing site in relation to landscape design in order to take site planning decisions	1	0	1	0	0	0	1	0	0	0	0	1		2	1	2
	Understanding environmental impact assessment and Natural environmental policies of India	0	0	0	0	0	1	2	0	0	1	0	1		3	1	3
	Enable to design and detail landscape projects	2	0	2	0	0	0	1	0	0	0	0	1		3	1	3
	AVG	1.25	0	1.2	1	0	1	1.17	0	0	1		1		2.34	1.5	2.17
Building Maintenance (BARC1-964)	CO 1: Understanding the Role and importance of the building maintenance in built environment.	1	1	0	0	0	0	2	1	0	0	0	3		1	2	1
	CO 2: Understanding the Diagnostic Techniques	0	2	0	2	0	0	0	1	1	1	0	0		2	2	3
	CO 3: Understanding the Prevention measures/Defects due to poor design and construction	1	1	1	1	0	2	0	2	0	0	2	0		1	1	1
	CO 4: Knowlwdge about the various defects in Buildings	0	2	0	2	0	0	0	1	0	1	0	0		2	2	1
	CO 5: Understanding of treatment methods/Repair materials	1	2	0	0	0	0	0	2	0	0	0	2		1	1	2
	CO 6: Knowledge about the maintenance of the building both economic and social significance	1	1	1	0	0	0	0	2	0	0	0	0		3	1	2
	AVG	1	1.5	1	1.8	0	2	2	1.5	1	1	2	2.5		1.6	1.5	1.6

Sikh Architecture (BARC1-966)	CO 1: Understanding the development of Sikh architecture in the form of Gurdwaras, Forts and Palaces in various regions of Punjab.	2	0	0	0	0	0	0	0	1	1	1	1		1	0	2
	CO 2: Understanding Contemporary examples of Sikh Gurdwaras built in late 20th and 21st Century	2	1	1	0	0	0	0	1	1	1	1	1		1	0	2
	CO 3: Understanding Evolution of Sacred Sikh Architecture – Salient features of a Gurdwara varieties of Arches, Domes, Capitals and other building elements	2	1	1	0	0	0	0	1	1	1	1	1		1	0	1
	CO4: Understanding of Sikh Architecture in Historical, Religious, social and environmental context	2	1	1	0	0	0	0	1	1	1	1	1		1	0	2
	CO5: Understanding thr design of Khalsa Heritage Memorial complex at Anandpur Sahib	2	1	1	0	0	0	0	1	1	1	1	1		1	0	1
	CO6: Undersatnsding the Landscape elements developed under Sikh rulers in prominent cities like Amritsar, Patiala, Nabha, Kapurthala, Gobindgarh, Anandpur Sahib	2	1	1	0	0	0	0	1	1	1	1	1		1	0	1
	AVG	2	1	1	0	0	0	0	1	1	1	1	1		1	0	1.5
Architecture Model Making (BARC1-967)	CO 1: Prepare models of Architectural projects	2	1	2	0	2	0	0	0	0	0	0	2		3	3	1
	CO:2 Develop their own preferred technique for the model making	2	0	0	0	2	0	0	0	0	0	0	2		2	2	2
	CO:3 Develop quick study models for developing a design idea.	1	0	0	0	1	0	0	0	0	0	0	1		2	2	2
	CO:4 Develop detailed models of buildings	1	0	2	0	0	0	0	0	0	0	0	2		2	3	1
	CO:5 Do Presentation models of single building or group of buildings.	1	0	0	0	0	0	0	0	2	0	0	2		2	2	1
	CO:6 Learn different materials used in models.	2	0	0	0	0	0	0	0	0	0	0	2		1	1	1
	AVG	1.5	1	2	0	1.6	0	0	0	2	0	0	1.8		2.1	2.1	1.3
Vernacular Architecture (BARC1-968)	CO 1: Understanding basic vernacular settlement development as per the syllabus.	3	0	2	2	0	0	3	2	0	0	0	2		1	1	3
	CO 2: Acquainting themselves with the various vernacular settlements in Plains and Hills of Northern India.	3	0	3	3	1	0	3	2	1	0	0	2		1	1	3
	CO 3: Understanding the Settlement pattern, building material/ technology and socio–economic structure in a village of Punjab, Study and analysis of spatial organization	3	0	3	3	0	0	3	1	1	1	0	1		1	1	3
	CO4: Understanding the Approach and works of architects Laurie Baker, Hassan Fathy	3	0	2	3	1	0	3	1	2	1	0	2		1	1	3
	CO5: Understanding vernacular settlements in different parts of India as well as abroad.	3	0	2	3	0	0	3	0	1	1	0	1		1	1	3
	CO6: Understanding the Role and importance of social, cultural, political, economic, climatic, technological factors	3	0	2	3	1	0	3	2	0	0	0	1		1	1	3
	AVG	3	0	2.3	2.8	1	0	3	1.6	1.25	1	0	1.5		1	1	3
Architectural Design-IX (Thesis Project) (BARC1-X59)	CO 1: Design projects of any scale independently.	3	3	3	3	2	1	1	1	2	0	1	0		3	3	1
	CO 2: Employ skills to present his/her work in front of a panel and defend it.	3	2	0	0	2	0	0	0	1	3	0	0		3	3	3
	CO 3: Knowledge to write a report pertaining to a large scale architectural project.	0	2	0	0	0	0	0	0	1	3	0	3		1	1	3
	CO 4: Understand different digital and physical skills to present his/her work for Project execution.	0	0	0	0	3	0	0	0	0	2	0	0		2	2	2
	CO 5: Distinguish details to be developed for site planning, structure, services and other aspects.	3	3	0	0	0	0	1	0	0	0	2	0		2	3	1
	CO 6: Understand the design requirements as specified in client's and architect's briefs.	2	0	0	3	0	2	1	1	3	3	0	0		1	3	1
	AVG	1.83	1.67	0.5	1	1.17	0.5	0.5	0.33	1.17	1.83	0.5	0.5		2	2.5	1.83
Professional Practice (BARC1-X60)	CO 1: Understand the various acts and regulations related to Architectural profession in India.	2	0	0	3	0	2	0	0	0	0	0	3		3	3	1
	CO 2: Knowledge about the Code of Conduct which is framed by Council of Architecture, India.	2	2	0	0	0	3	0	3	0	0	0	3		3	3	1
	CO 3: Distinguish different legal matters which are associated with professional practice, dispute, competitions, tenders and contracts etc.	3	0	0	3	0	2	0	0	0	0	0	0		2	3	1
	CO 4: Knowledge about the associated areas like office management, teamwork, human resource, environment and social responsibility.	2	0	0	0	0	0	0		3	0	3	0		3	3	1

	CO 5: Design Tender and Contract document.	3	0	0	0	0	2	0	3	3	2	0	0		2	3	1
	CO 6: Distinguish between the responsibilities of architect, client, contractor.	3	3	0	0	0	3	0	0	2	0	2	0		3	3	1
	AVG	2.5	0.83	0	1	0	2	0	1.2	1.33	0.33	0.83	1		2.67	3	1
Energy Efficient Buildings & Building Automation (BARC1- X69)	CO 1: Understanding energy sources, global scanario and energy consumption	0	0	0	0	0	1	2	0	0	1	0	1		2	1	2
	CO 2: Understanding study of different energy-efficient principles of a building and their various application techniques in different climatic zones prevailing in India including solar active and passive features.	1	0	1	0	0	1	2	0	0	1	0	1		2	2	2
	CO 3: Understanding principles for designing of large scale mechanical services	0	0	2	0	0	1	1	0	0	1	0	1		2	2	3
	CO 4: Understanding Building Automation, control systems and monitoring	0	1	2	0	0	1	1	0	0	0	0	1		3	1	2
	CO 5: Learning the role of lighting and illumination related issues for energy efficiency	0	1	2	0	0	1	1	0	0	0	0	1		3	1	3
	AVG	1	1	1.75			1	1.4	0	0	1	0	1		2.4	1.4	2.4
Architectural Journalism (BARC1- X71)	CO 1: Understanding theories and techniques in journalism	1	0	1	0	0	0	0	1	0	0	0	0		2	1	2
	CO 2: Understanding contemporary journalism in Architecture ect	1	0	1	0	0	0	0	1	0	1	0	1		2	1	2
	CO 3: Reporting, recording, analysing and evaluating an architectural proj	1	0	1	0	0	0	0	1	0	2	0	1		2	1	2
	CO 4: Editing journalistic material related to built environment	1	0	1	0	0	1	0	1	0	2	0	1		3	1	2
	CO 5: Preparing research writings and thesis reports	1	0	1	0	0	0	0	1	0	2	0	1		3	1	3
	CO 6: Usage of skills of journalism to enhance documentation, analytical ability and develop effective architectural critique and specialized career option.	1	0	1	0	0	1	0	1	0	2	0	2		2	1	2
	AVG	1	0	1	0	0	1	0	1	0	1.8	0	1.2		2.34	1	2.17
Sustainable Architecture (BARC1- X73)	CO 1: Making the students aware to environment and ecology for Sustainable development	1	0	1	0	0	1	3	0	0	0	0	1		2	1	1
	CO 2: Understanding the principles and concepts of Sustainable Architecture for the built environment.	1	0	1	0	0	0	3	0	0	1	0	1		2	2	2
	CO 3: Understanding about various renewable and non renewable energy sources and their importance for Sustaianble development	0	0	1	0	0	0	2	0	0	1	0	1		2	2	3
	CO 4: Understanding Sustaiable construction materials and Indoor environment	0	0	0	0	0	1	2	0	0	1	0	1		3	1	2
	CO 5: Understanding various green building rating systems and ECBC code	0	0	0	0	0	1	2	0	0	1	0	1		3	1	2
	CO 6: Understanding assessment of Green buildings in various rating systems of India	0	1	1	0	0	1	2	0	0	1	0	1		3	1	2
	AVG	1	1	1	0	0	1	2.33	0	0	1	0	1		2.5	1.33	2
Architectural Conservation (BARC1- X74)	CO 1: Understanding the principle, objective, role of conservation and prepare the methodology to execute the conservation work.	3	0	0	2	0	2	1	0	2	0	3	1		1	2	3
	CO 2: Understanding about Methods of studying and documenting historical monuments in the context of guidelines issued by UNESCO, INTACH.	3	0	0	3	0	2	1	1	3	0	2	1		1	1	3
	CO 3: Understanding about Study of construction methods and structural analysis of various historical building styles e.g. Arches Domes, Vaults and Shikharas etc.	3	0	0	3	0	2	1	0	3	0	0	1		1	2	3
	CO4: Understanding finishes in historical buildings and effects of weathering/ pollution on historical buildings	2	0	0	3	0	2	1	0	0	0	0	0		1	2	3
	CO5: Understanding the methods of saving monuments from vandalism	2	0	0	3	0	2	1	3	0	0	0	2		1	1	3
	CO6: Understanding Role of Historic Building/Area/City in Present Context	3	0	0	3	0	2	1	1	0	0	0	1		1	1	3
	AVG	2.66	0	0	2.8	0	2	1	1.6	2.6	0	2.5	1.2		1	1.5	3