PhD in Architecture

Syllabus for Common Entrance Test (CET)
for
Admissions in PhD in Architecture at Veer Narmad South Gujarat University

The detail syllabus for Common Entrance (CET) is as under.

Format of exam: The entrance Test shall consist of 50% of Research Methodology questions from PART A and 50% shall be of any two specific subjects listed in PART B from

PART: A Research Methodology and Application

Definition, Meaning and importance of Research, Characteristics and Types of Research, History – Evolution of Scientific Inquiry, need of research and Identification of the problem assessing the status of the problem, Research Design, Sources of Data – Primary, Secondary and Tertiary, Types of Data – Categorical, nominal & Ordinal, Methods of Collecting Data: Observation, field investigations, Direct studies, Reports, Records or Experimental observations. Sampling methods – Data Processing and Analysis strategies- Graphical representation – Descriptive Analysis – Inferential Analysis- Correlation analysis- Least square method, Data Analysis using statistical package – Hypothesis – testing – Generalization and Interpretation, Modeling, Scientific Writing, Structure and components of Scientific Reports, Scientific Research: types, formulating the objectives, Actual investigation. Preparing Research papers for journals, Seminars and Conferences, Components of Preparation of Project Proposal – Title- Abstract- Introduction – Rationale- Objectives- Methodology- Time frame and work plan -Budget and Justification – References, Structure and Components of Research Report, Types of Report: research papers, thesis, Research Project Reports, Pictures and Graphs, citation styles, writing a review of paper, Bibliography, Ethics in Research and Plagiarism, Computer applications and Statistics

PART: B Subject Specific

Architecture studies: history and theory

Architectural Design and Theory, Fundamentals of Architectural theory, Architectural styles: evolution, characteristics and application, Architectural, cultural and political forces that have shaped the continuing discourse of modernity in architecture including all of its contemporary manifestations, arts and crafts movements, vernacular architecture, historical and critical thinking

Architecture and technology:

Building sciences, vernacular and contemporary construction technology, material properties and application, intelligent building systems, sustainable design and practices, Green Building rating systems, building economics, disaster resilient design

Urban Planning:

History of human settlements and planning principles, urban development models, Land use planning mechanisms, origins/conception of planning as an activity in India with its agenda/preamble and Institutional/ Organizational framework as controlling mechanisms, tools and techniques of preparing master plan/ development plans/area plan, policy dimensions and legislative provisions, various rules, act, norms, guidelines and development mechanism in various states related to urban planning and Land management.

Urban Design History and Theory:

Understanding of the history of urban form and urbanization, evolution of cities, driving forces—geographic, economic, spiritual, political and technological ones—that have always shaped the city, urban design theories, examples, elements of urban design, parameters that make cities liveable and sustainable

Housing:

Introduction to Housing, Community and Economic Development, Housing and Urbanization in India, Key concepts in Urban Housing, Slums as a major urban issue and policy initiatives for that, Housing Policies in the India: The Intersection of the Public and Private Sectors, Housing Laws and Housing Delivery Systems in the India, housing policy, market analysis, physical design and planning.

Land Development and Management Practices, Land Rights for Urban Designers, Real Estate and City Making in India, Real Estate Finance and Development Fundamentals, Real Estate practices in India, real estate finance and management, the development process, community engagement, implementation strategies and regulatory programmes.

Urban Economics and Governance

Urban land economics, Tools and programs available to economic development and governance of city areas, municipal budget processes, spatial aspects of local government, private capital markets and financing sources to understand capital market imperfections that constrain economic development, municipal accounting, financial statement analysis, federal economic development programs, and public finance tools.

Urban Infrastructure

Understanding engineered systems (water, energy, transport, sanitation, information and communication system) that make up a city, challenges resulting from increasing population growth-pressure on urban infrastructural system, issues of urban mobility, infrastructure management plan, need for developing high performing, cost-effective, resource-efficient and environmentally-friendly sustainable infrastructure, social infrastructure- need and management

Urban Conservation

Heritage and urban heritage, identification-preservation-management and integration of heritage assets- natural, cultural and built, Urban Heritage Conservation: tools and methods, Acts - Laws, Policy and programmes for urban heritage conservation and management, Charters of conservation, Renewal-regeneration of historic areas/cities, heritage toolkit and legal framework to achieve the aims of urban conservation, World heritage, UNESCO World heritage sites, heritage cities network, Best practices of heritage management, participatory approach of heritage management.

Urban Environment and Ecology

Ecology and Urban ecology, Impact of built environment on environmental processes, Urbanization and its impact on environment, Urban Ecosystem Analysis: Tools and Methods, Environmental impact assessment- significance and application, Managing Cities as Urban Ecosystems: Fundamentals, Concept of Landscape Ecology and its application, Principles of Ecological planning, Ecosystem Approach to Urban Management and Policy Development, approaches and practices to design sustainable cities.

Urban Landscape

Urban Landscape theories and methodology, Landscape at Regional, City, Neighbourhood & Plot level, and City as Landscape, brown field and green field development, water as landscape feature (Hydrology, Hydraulics, Water Harvesting), Landscape sensitive Urban Design

Cartography and GIS

Basics of GIS and cartography, importance of GIS and cartography with reference to urban design and planning, spatial information generation through GIS mapping and its extraction, methods and techniques of Cartography, Cartographical mapping of various rural/urban layers, Mapping Tools and Techniques

Sociology

Social and cultural forms that have produced cities, Globalization and Urbanism, Issues of Urbanism such as cast, community segregation and sociology as a major area of understanding for the same, Gentrification, Urban Cultures/New Urban Planning Movement, Architecture, Art, and Social Condition, Community Organizing, humanizing cities.